Draft Environmental Impact Report

National City Bayfront Projects & Plan Amendments

UPD# EIR-2018-232; SCH# 2018121054







VOLUME I of V

Draft EIR



September 2021

PORT of SAN DIEGO
Environment

DRAFT ENVIRONMENTAL IMPACT REPORT
for the
National City Bayfront Projects & Plan Amendments

UPD # EIR-2018-232
State Clearinghouse (SCH) #2018121054

Volume I of V

Draft EIR

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Acronyms and Abbreviations

Acronym	Definition
°F	degrees Fahrenheit
µPa	micropascals
2016 SIP Update	2016 State Strategy for the State Implementation Plan
AB	Assembly Bill
ABM	Activity Based Model
ACM	asbestos-containing materials
ADT	average daily traffic
AFY	acre-feet per year
AGR	Agricultural Supply
AIA	airport influence area
AICUZ	Air Installations Compatible Use Zones
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
APNs	Assessor Parcel Numbers
AQIA	Air Quality Impact Analysis
Balanced Plan	National City Marina District Balanced Land Use Plan
Basin Plans	water quality control plans
BAU	business-as-usual
BFE	base flood elevations
BIOL	Preservation of Biological Habitats or Special Significance
BMPs	Best Management Practices
BNSF	Burlington Northern Santa Fe
Board	Board of Port Commissioners
BSA	Biological Survey Area
BTU	British thermal units
CA Title 22	California Code of Regulations, Title 22
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFÉ	Corporate Average Fuel Economy Standards
Cal/EPA	California Environmental Protection Agency
CalEEMod	California Emissions Estimator Model
CalEnviroScreen	California Communities Environmental Health Screening Tool
CalEPA	California Environmental Protection Agency
CalGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPP	Community Air Protection Program
CARB	California Air Resources Board
CCA	California Coastal Act
CCC	California Coastal Commission
CCR	California Code of Regulations

Acronym	Definition
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CEC	California Energy Commission
CEMP	California Eelgrass Mitigation Policy
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CGP	Construction General Permit
CH_4	methane
Characterization Report	Site Contamination Characterization Report
CHRIS	California Historical Resources Information System
City	City of National City
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
COMM	Commercial and Sport Fishing
CoSMoS	Coastal Storm Modeling System
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRMDP	Cultural Resources Monitoring and Discovery Plan
CSLC	California State Lands Commission
CT	Tourist Commercial
CTR	California Toxics Rule
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWA	County Water Authority's
dB	decibel
dB CNEL	Community Noise Equivalent Level decibels
dBA	A-weighted decibel
DCP	Drought Contingency Plan
DEH	Department of Environmental Health
Disposal Plan	Soil Disposal Plan
District	San Diego Unified Port District
DOT	Department of Transportation
DPM	diesel particulate matter
Draft Plan	Draft California 2030 Natural and Working Lands Climate Change Implementation Plan

Acronym	Definition
DTSC	Department of Toxic Substances Control
EB	eastbound
ECA	Emission Control Area
EDD	Employment Development Department's
EDF	Environmental Defense Fund
EFH	Essential Fish Habitat
EHC	Environmental Health Coalition
E-I	External-to-Internal
EIR	Environmental Impact Report
EMPS	Embarcadero Marina Park South
EO	Executive Order
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
ESHA	Environmentally Sensitive Habitat Area
ESLs	Environmental Screening Levels
EST	Estuarine Habitat
EV	electric vehicle
FAA	Federal Aviation Administration
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FESA	federal Endangered Species Act
FIRM	Flood Insurance Rate Map
FPR	first point of rest
FR	Federal Register
FTA	Federal Transit Administration
GB Capital	GB Capital Holdings
Geosyntec	Geosyntec Consultants
GHG	greenhouse gas
GPCD	gallons per capita per day
gpm	gallons per minute
GWP	global warming potential
HDSAP	Harbor District Specific Area Plan
HFC	hydrofluorocarbons
HMD	Hazardous Materials Division
HMMP	Habitat Mitigation and Monitoring Plan
hp	horsepower
HPD	San Diego Harbor Police Department
HU	hydrologic unit
HVAC	heating, ventilation, and air-conditioning
Hz	Hertz
I-	Interstate
I-E	Internal-to-External
I-I	Internal-to-Internal
IID	Imperial Irrigation District

Acronym	Definition
ILV	intersection lane volume
IMO	International Maritime Organization
in/sec	inches per second
IND	Industrial Service Supply
INRMP	Integrated Natural Resources Management Plan
IPCC	Intergovernmental Panel on Climate Change
ITP	Incidental Take Permit
IWRP	Integrated Water Resources Plan
JRMP	Jurisdictional Runoff Management Program
kHz	kilohertz
KOP	key observation point
kW	kilowatts
kWh	kilowatt hour
LBP	lead-based paint
LCFS	Low Carbon Fuel Standard
LCP	Local Coastal Program
LCPA	Local Coastal Program Amendment
LDA	light duty auto
Ldn	Day-Night Sound Level
LDT	light duty truck
LEA	Local Enforcement Agency
LED	light-emitting diode
LEED	Leadership in Energy and Environmental Design
Leighton	Leighton and Associates, Inc.
L_{eq}	equivalent sound level
LID	low-impact development
LID	low-impact design
L_{max}	Maximum Sound Level
L_{min}	Minimum Sound Level
LOS	Level of Service
LT	Long-term
LUC	Land Use Code
LUST	leaking underground storage tank
LV	Vibration Velocity Level
L_{xx}	Percentile-Exceeded Sound Level
MAR	Marine Habitat
MARPOL	International Convention for the Prevention of Pollution from Ships
MBTA	Migratory Bird Treaty Act
MCAS	Maritime Clean Air Strategy
MCL	Maximum Contaminant Level
Metropolitan	Metropolitan Water District
mg/L	milligrams per liter
mgd	million gallons per day
MICR	maximum incremental cancer risk
MIGR	Migration of Aquatic Organisms

Acronym	Definition
MM	Medium Manufacturing
MMPA	Marine Mammal Protection Act
MOU	Memorandum of Understanding
mph	miles per hour
MPO	Metropolitan Planning Organization
MS4	municipal separate storm sewer system
MSFMCA	Magnuson-Stevens Fishery Management Conservation Act of 1976, as amended 1996
$MTCO_2e$	metric tons of carbon dioxide equivalent
MTS	Metropolitan Transit System
MUN	Municipal and Domestic Supply
MWh	megawatt-hour
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAS	Naval Air Station
NASNI	Naval Air Station North Island
NAV	Navigable
NAVAIDS	navigational aids
NB	northbound
NC&O	National City & Otay Railroad
NCFD	National City Fire Department
NCMC	National City Municipal Code
NCMT	National City Marine Terminal
NCPD	National City Police Department
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Association
NHSTA	National Highway Traffic Safety Administration
NIMS	National Incident Management System
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO_2	nitrogen dioxide
NOLF	Naval Outlying Landing Field
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NSR	New Source Review
NTR	National Toxics Rule
O&M	operations and maintenance
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OPC	Ocean Protection Council
OPR	Office of Planning and Research
PAHs	polynuclear aromatic hydrocarbons
Pasha	Pasha Automotive Services

Acronym	Definition
Pb	lead
PCB	polychlorinated biphenyl
PDP	priority development project
PFC	perfluorocarbons
PFCs	perfluorinated carbons
Planning District 5	National City Bayfront Planning District
Plug-in SD	SANDAG launched Plug-in San Diego
PLWTP	Point Loma Wastewater Treatment Plant
PM	particulate matter
PM_{10}	particulate matter 10 microns or less in diameter
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
PMP	Port Master Plan
PMPA	PMP Amendment
Port Act	San Diego Unified Port District Act
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
project proponents	San Diego Unified Port District, City of National City, GB Capital Holdings, and Pasha Automotive Services
PVC	polyvinylchloride
RAQS	Regional Air Quality Strategy
RARE	Rare, Threatened, or Endangered Species
RCNM	Roadway Construction Noise Model
RCP	Representative Concentration Pathway
RCRA	Resource Conservation and Recovery Act
REC1	Contact Water Recreation
REC2	Non-contact Water Recreation
Regional Bike Plan	San Diego Regional Bike Plan
Regional Plan	San Diego Forward: The Regional Plan
RES	Regional Energy Strategy
RGP	Regional General Permit
Rivers and Harbors Act	Rivers and Harbors Appropriation Act of 1899
rms	root-mean-square
ROG	reactive organic gases
ROW	right-of-way
RPS	Renewables Portfolio Standard
RSLs	Regional Screening Levels
RTP	Regional Transportation Plan
RV	recreational vehicle
RWQCB	Regional Water Quality Control Board
SAFE	Safer Affordable Fuel-Efficient
Safety Plan	Site Worker Health and Safety Plan

Acronym	Definition
SANDAG	San Diego Association of Governments
SANDAG Model	SANDAG Series 13 Transportation Forecast, Base Year Model
Santa Fe	Atchison, Topeka & Santa Fe Railroad
SB	southbound
SB	Senate Bill
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SD&AE	San Diego, Arizona and Eastern Railway Company
SD&SE	San Diego and South Eastern Railway Company
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDERC	San Diego Electric Railway Company
SDG&E	San Diego Gas & Electric Company
SEMS	Standardized Emergency Management System
SF_6	sulfur hexafluoride
SHELL	Shellfish Harvesting
SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLCP	short-lived climate pollutant
SLR	sea-level rise
SLT	screening-level threshold
SO_2	sulfur dioxide
SOHO	Save Our Heritage Organization
SOI	Secretary of the Interior
SO_X	sulfur oxide
SPCC	Spill Prevention Control and Countermeasure
SPWN	Spawning, Reproduction, and/or Early Development
SR-	State Route
ST	short-term
STC	sound transmission class
STP	Special Traffic Permit
SWA	Sweetwater Authority
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TAZ	Transportation Analysis Zones
TDM	Transportation Demand Management
TDS	total dissolved solids
Testing and Profiling Plan	Soil Testing and Profiling Plan
TIA	Traffic Impact Analysis
TIS	Traffic Impact Study
TMDL	total maximum daily load
TO	Transit Oriented Development

Acronym	Definition
TPH	total petroleum hydrocarbons
USACE	U.S. Army Corps of Engineers
USC	United States Code
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
VAP	Voluntary Action Program
VdB	vibration decibels
VMT	vehicle miles traveled
VOCs	volatile organic compounds
Water Authority's	San Diego County Water Authority's
WB	westbound
WHO	World Health Organization
WILD	Wildlife Habitat
WMA	Watershed Management Area
WoS	waters of the state
WoUS	water of the United States
WQIP	Water Quality Improvement Plan
WSA	Water Supply Assessment
ZEV	zero-emission vehicle
ZNE	zero net energy

Introduction

This chapter provides a summary of the Draft Environmental Impact Report (EIR) prepared for the National City Bayfront Projects and Plan Amendments (proposed project), prepared in compliance with the California Environmental Quality Act (CEQA). The San Diego Unified Port District (District) is the CEQA Lead Agency for the EIR and, as such, has the primary responsibility for evaluating the environmental effects of the proposed project and considering whether to approve or disapprove the proposed project in light of these effects.

As required by CEQA, this Draft EIR does the following: (1) describes the proposed project, including its location, objectives, and features; (2) describes the existing conditions at the project site and nearby environs; (3) analyzes the direct, indirect, and cumulative adverse physical effects that would occur on the existing conditions should the proposed project be implemented; (4) identifies feasible means of avoiding or substantially lessening the significant adverse effects; (5) provides a determination of significance for each impact after mitigation is incorporated; and (6) evaluates a reasonable range of feasible alternatives to the proposed project that would meet the basic project objectives and reduce a project-related significant impact.

This Executive Summary covers the following topics: (1) Project Description; (2) Areas of Controversy/Issues Raised by Agencies and the Public; and (3) Issues to Be Resolved, including significant environmental effects and the consideration of alternatives to the proposed project.

Project Description

Overview

The San Diego Unified Port District (District), City of National City (City), GB Capital Holdings (GB Capital), and Pasha Automotive Services (Pasha) (collectively, project proponents) are proposing a project with both landside and waterside development components; an amendment to the District's Port Master Plan (PMP); amendments to the City's Local Coastal Program (LCP), General Plan, Harbor District Specific Area Plan (HDSAP), Land Use Code (LUC) (Municipal Code Title 18 Zoning), and Bicycle Master Plan (collectively "project" or "proposed project") on approximately 77 acres, consisting of approximately 58 landside acres and 19 waterside acres (project site) within District and City jurisdiction in National City.

Specifically, the proposed project includes the following main components.

- Changes to land and water use designations in the District's PMP (National City Marina District Balanced Land Use Plan [Balanced Plan]).
- Construction and operation of a recreational vehicle (RV) park, modular cabins, dry boat storage, an expanded marina, and up to four hotels, primarily within the District's jurisdiction (GB Capital Component).

- Construction and operation of a rail connector track and storage track within the District's jurisdiction (Pasha Rail Improvement Component).
- Closure of Tidelands Avenue between Bay Marina Drive and 32nd Street, as well as West 28th Street between Tidelands Avenue and Quay Avenue, within the District's and City's jurisdictions and redesignation of the area to Marine-Related Industrial in the District's PMP (Pasha Road Closures Component).
- Construction and operation of Segment 5 of the Bayshore Bikeway within the District's and City's jurisdictions (Bayshore Bikeway Component).
- Construction and operation of hotel, restaurant, retail, and/or a combination of tourist/visitor-serving commercial development north of Bay Marina Drive and the potential closure or narrowing of Bay Marina Drive west of Marina Way to through vehicular traffic within the City's jurisdiction (City Program – Development Component).
- PMP Amendment (PMPA) to clarify jurisdictional land use authority, redesignate land uses, and balance commercial and maritime uses (PMPA Component).
- Amendments to the City's LCP, General Plan, HDSAP, LUC, and Bicycle Master Plan that would include changes to jurisdictional boundaries; changes to subarea boundaries; and changes to land use, specific plan, and zone designations (City Program – Plan Amendments Component).

The proposed Balanced Plan includes a PMPA and corresponding LCP amendment (LCPA) to correct jurisdictional land use maps and clarify the land use authority, redesignate land uses, and balance commercial and maritime uses. The Balanced Plan was created in response to a public planning process to identify a reconfiguration of land uses to optimize recreational, maritime, and commercial uses within the National City Marina District, which is the area generally north of Sweetwater Channel and west of the wildlife refuge (Paradise Marsh). Implementation of the Balanced Plan would clearly delineate maritime land use boundaries from potential recreational and commercial land use boundaries while allowing operational efficiencies to increase at the National City Marine Terminal (NCMT) and maintaining sensitivity to the function and sustainability of the Paradise Marsh, as well as public access and recreation in an expanded Pepper Park. The Balanced Plan proposes to accomplish this through the reconfiguration of roadways, a new rail connection, reconfiguration of commercial recreation and maritime-related land uses, the expansion of Pepper Park, and preservation of habitat buffers for the adjacent wildlife refuge.

The Balanced Plan, most of the GB Capital Component, the Pasha Rail Improvement Component, most of the Pasha Road Closures Component, and a portion of the Bayshore Bikeway Component are all within the District's jurisdictional boundaries. Consequently, changes proposed by these components would require a PMPA and are referred to collectively as the "Port Master Plan Amendment Component" or "PMPA Component" and include:

- Incorporation of the Balanced Plan, most of the GB Capital Component, the Pasha Rail Improvement Component, and the alignment of the Bayshore Bikeway into the PMP.
- Removal of the Street designation for the street closures associated with the Pasha Road Closures Component and redesignation of these areas (with the exception of the area within the City's jurisdiction) as Marine-Related Industrial.
- Addition of approximately 12.4 acres of the Balanced Plan, located mostly on the GB Capital site east of the mean high tide line and owned in fee by the District, into the PMP.

Most of the proposed Bayshore Bikeway Component and the entire proposed City Program – Development Component are within the City's jurisdiction. Consequently, the City Program – Plan Amendments would consist of the following:

- Removal of approximately 12.4 acres of the Balanced Plan, located mostly on the GB Capital site east of the mean high tide line and owned in fee by the District, from the City's General Plan, LCP, HDSAP, and LUC to reflect changes in land use and jurisdictional authority.
- Incorporation of seven parcels north of Bay Marina Drive and adjacent rights-of-way into the City's HDSAP.
- Amendment to the City's Bicycle Master Plan to reflect the realignment of the Bayshore Bikeway.

Project Location

The project site is located in the southwestern portion of National City, partially within the City's existing jurisdiction, partially within the District's existing jurisdiction. The project area is generally bordered by Paradise Marsh (part of the San Diego Bay National Wildlife Refuge/Sweetwater Marsh Unit) to the east, Sweetwater Channel to the south, NCMT and maritime uses to the west, and Civic Center Drive and commercial and industrial uses to the north.

Most of the project site is on land that is within the District's jurisdiction, and the District has regulatory duties and proprietary responsibilities over these portions of the project site. These portions of land have included leases since 1990 to Pasha for operation of an automotive import/export business at the marine terminal and leases since 2008 to GB Capital for operation of a recreational boat marina. In addition, Pepper Park and a portion of Sweetwater Channel (west of the mean high tide line) are part of the project site included within the District's jurisdiction, and a portion of Sweetwater Channel (east of the mean high tide line) is part of the project site included within the City's jurisdiction.

The proposed project consists of the following six components, which, while not all contiguous, total approximately 77 acres, and are in the following general locations:

- The Balanced Plan is located within the District's jurisdiction and is a land use plan to reconfigure land and water uses within the approximately 60.9-acre area generally north of Sweetwater Channel, south of the National Distribution Center, east of NCMT, and west of Paradise Marsh. The Balanced Plan proposes to reconfigure areas that are designated for Park/Plaza, Commercial Recreation, Marine Terminal, Marine-Related Industrial, Recreational Boat Berthing, and Street land uses in the Port Master Plan. The Balanced Plan also includes an expansion to Pepper Park.
- The GB Capital Component includes the Pier 32 Marina and the undeveloped lot to the north of the marina, part of the Sweetwater Channel to the south of the marina, and two existing parking lots utilized by Pasha, generally to the north and west of the marina. The GB Capital site is generally bounded by Sweetwater Channel to the south, Paradise Marsh to the east, the National Distribution Center facility to the north, and NCMT to the west. The GB Capital Component is proposed to be located generally on the area identified for a Commercial Recreation land use in the Balanced Plan, but also extends into the City's jurisdiction, and outside the Balanced Plan boundaries, in the Sweetwater Channel and the area east of the marina. The landside portions of the GB Capital Component, as well as the existing marina, and most of the jetty are located within the District's jurisdiction.

- The Pasha Rail Improvement Component, which is located within the District's jurisdiction, would traverse the lot bounded on the north by existing railroad tracks and the National Distribution Center, on the east by Marina Way, on the south by 32nd Street, and on the west by Tidelands Avenue. The Pasha Rail Improvement Component is proposed to be located in the area identified for a Marine Related Industrial land use in the Balanced Plan.
- The Pasha Road Closures Component is located on Tidelands Avenue, from south of Bay Marina Drive to 32nd Street, and West 28th Street, between Quay Avenue and Tidelands Avenue. The Pasha Road Closures Component is mostly located within District jurisdiction, and a portion (between Bay Marina Drive and the mean high tide line) is located within City jurisdiction.
- The Bayshore Bikeway Component is generally located on a combination of existing roadways, including Bay Marina Drive, Marina Way (formerly Harrison Avenue), Cleveland Avenue, McKinley Avenue, West 19th Street, Tidelands Avenue, West 14th Street, and Civic Center Drive. Most of the Bayshore Bikeway Component is located within the City's jurisdiction, and the southernmost portion is located within District jurisdiction.
- The City Program – Development Component is located within the City's jurisdiction, north of Bay Marina Drive, generally bounded by West 23rd Street on the north, the Interstate (I-) 5 southbound off-ramp at Bay Marina Drive to the east, Bay Marina Drive to the south, and the BNSF Railway (BNSF) railroad tracks to the west (west of the intersection of Bay Marina Drive and Marina Way).

Project Objectives

To achieve the purpose and need of the proposed project, the District has identified the following objectives in coordination with the City.

1. Further activate the project site by modifying the land uses and their configurations to foster the development of high-quality commercial and recreational uses to maximize employment opportunities, maximize recreational opportunities for visitors, maximize economic development opportunities, and to improve cargo and transportation efficiencies of maritime industrial uses associated with operations at NCMT.
2. Reconfigure maritime and commercial uses to balance the anticipated future market demands for those uses, while also increasing public access on the project site.
3. Implement cohesive commercial development that is designed to enhance enjoyment of the National City Marina District and surrounding City area, contribute to the area's economic vitality, and generate economic revenue for the City including through increased Transient Occupancy Tax.
4. Increase park space and recreational opportunities to enhance the waterfront experience for all visitors and maximize opportunities to attract tourism to the City.
5. Reduce unnecessary train movements and reduce the required effort associated with building daily trains by improving near-terminal rail storage capacity and creating a more direct connection between the BNSF Railway National City Yard and the NCMT.
6. Offset the loss of existing land used for maritime operations, as proposed in the Balanced Plan, by closing internal District streets (i.e., Tidelands Avenue and West 28th Street) adjacent to existing maritime operations to create contiguous space for maritime operations and

configuring cargo operations at and adjacent to the NCMT to create cargo-handling efficiencies to reduce cargo movements.

7. Incorporate District properties into the PMP that are not currently regulated by the PMP to ensure consistency with the California Coastal Act, Public Trust Doctrine, and Port Act.
8. Be consistent with the City's environmental policies and the District's Climate Action Plan, Clean Air Program, and Jurisdictional Runoff Management Program to ensure that the proposed project does not adversely affect the District's or City's ability to attain their respective long-range environmental and sustainability goals.
9. Expand aquaculture potential on District tidelands.
10. Incorporate a land use pattern for the National City Marina District into the PMP that establishes habitat buffers and implements operational features to avoid land use and operational inconsistencies between commercial, recreational, open space, and maritime uses.
11. Integrate National City, art, culture, and history into the development of the proposed project.
12. Increase the connectivity of the Project area to the surrounding area and facilitate increased pedestrian activity and enjoyment of San Diego Bay for visitors.

Areas of Known Controversy/Issues Raised by Agencies and the Public

Section 15123 of the State CEQA Guidelines requires the summary of an EIR to include areas of controversy known to the Lead Agency, including issues raised by agencies and the public. The District circulated a Notice of Preparation (NOP) to solicit agency and public comments on the scope and content of the environmental analysis beginning on December 20, 2018, and ending on January 31, 2019. The NOP is included as Appendix A.

A total of 14 comment letters were received during the NOP public review period. The primary issues raised related to aesthetics and visual resources; air quality and health risk; biological resources; cultural resources, tribal cultural resources, and paleontological resources; energy; greenhouse gases (GHGs); hazards and hazardous materials; hydrology and water quality; land use and planning; noise and vibration; population and employment; public services and recreation; transportation, parking, and traffic; and utilities. A summary of all comments received is included in Table 1-2 of Chapter 1, *Introduction*, and all NOP comment letters are included in Appendix B of this EIR.

Issues to be Resolved

Summary of Project Impacts

This Draft EIR examines the potential environmental effects of the proposed project, including information related to existing site conditions, analyses of the types and magnitude of individual and cumulative environmental impacts, and feasible mitigation measures that could reduce or avoid

environmental impacts. In accordance with Appendix G of the State CEQA Guidelines, the potential environmental effects of the proposed project were analyzed for the following areas.

- Aesthetics and Visual Resources
- Air Quality and Health Risk
- Biological Resources
- Cultural Resources, Tribal Cultural Resources, and Paleontological Resources
- Energy
- Greenhouse Gas Emissions and Climate Change
- Hazards and Hazardous Materials
- Land Use and Planning
- Noise and Vibration
- Population and Employment
- Public Services and Recreation
- Transportation, Circulation, and Parking
- Utilities and Service Systems

Table ES-1, presented at the end of this chapter, provides a summary of the environmental impacts that could result from implementation of the proposed project and feasible mitigation measures that would reduce or avoid the impacts. For each impact, Table ES-1 identifies the significance of the impact before mitigation, applicable mitigation measures, and the level of significance of the impact after the implementation of the mitigation measures. Impacts on agricultural and forestry resources, geology and soils, mineral resources, and housing are considered to be "Effects Found Not to be Significant," in accordance with Section 15128 of the State CEQA Guidelines. These issues are discussed further in Chapter 6, *Additional Consequences of Project Implementation*.

Outstanding Issues/Decisions for Board of Port Commissioners

The following describes the outstanding issues/decisions to be made by the Board of Port Commissioners:

Alignment for Realigned Marina Way

As discussed further in Chapter 3, *Project Description*, there are two versions of the proposed draft PMPA included in this EIR – one that reflects the land use configuration associated with the Balanced Plan (see Appendix D to this EIR) and one that reflects a slight variation to the Balanced Plan, which is the land use configuration associated with the GB Capital Component (see Appendix E to this EIR). The primary difference between these two PMPAs is the location of the realigned Marina Way/Road D3. Under the GB Capital Component, the realigned Marina Way/Road D3 would be narrowed and shifted to the southeast from the alignment identified in the Balanced Plan, and the portion of the area between the connector rail track (see Section 3.4.3, *Pasha Rail Improvement Component*) and the realigned roadway would be changed to a Commercial Recreation land use to allow for dry boat storage instead of the wider realigned Marina Way/Road D3 that is in the Balanced Plan. Both versions of the realigned Marina Way, as well as the dry boat storage proposed with the GB Capital Component, have been fully analyzed in this EIR; however, only one version, which can be a combination of different components of each PMPA, can be adopted by the Board of Port Commissioners and forwarded to the California Coastal Commission for certification.

Granger Hall

As part of the proposed Pepper Park expansion, the City-owned historic Granger Hall may be relocated to Pepper Park. This project option was included in this EIR at the request of the City and

has been fully analyzed in this EIR. The relocation of Granger Hall is included in both versions of the proposed draft PMPA; however, only one version, which can be a combination of different components of each PMPA, can be adopted by the Board of Port Commissioners and forwarded to the California Coastal Commission for certification.

Bayshore Bikeway – Segment 5

The proposed project includes construction and operation of Segment 5 of the Bayshore Bikeway. This EIR analyzes three alignments of the Bayshore Bikeway; however, only one alignment will be selected for implementation. The locations of the three routes are described in Chapter 3. As of the writing of this EIR, the City's preferred route is Route 3. All three alignments have been fully analyzed in this EIR.

Summary of Project Alternatives

The following alternatives are analyzed in detail in Chapter 7, *Alternatives to the Proposed Project*. The objective of the alternatives analysis is to consider a reasonable range of potentially feasible alternatives to foster informed decision-making and public participation. The alternatives to the proposed project are summarized below.

Alternative 1 – No Project/No Build Alternative

The No Project Alternative is required by CEQA to discuss and analyze potential impacts that would occur if the project was not implemented. Under the No Project Alternative, the site would operate in its current state, and the land use redesignations associated with the Balanced Plan would not occur. Tidelands Avenue between Bay Marina Drive on the north and 32nd Street on the south and West 28th Street between Quay Avenue and Tidelands Avenue would still function as roadways, and no Pasha rail improvements would occur. The existing Pier 32 Marina would not be expanded to include overnight accommodations, moorings, floating docks, piers, and aquaculture facilities. The alternate Segment 5 of the Bayshore Bikeway would not be developed, and the existing Segment 5 that is located on Tidelands Avenue and 32nd Street would remain in place. The Aquatic Center would continue to operate under the existing conditions, and Pepper Park would not be expanded. In addition, the following would not be built: RV resort, dry boat storage, modular cabins; two-story building with restrooms, laundry facilities, and staff support services; maintenance building and yard, public access corridors, view corridors, or hotels (up to four). In addition, the City Program—which includes amendments to the City's General Plan, LCP, HDSAP, and LUC for seven parcels north of Bay Marina Drive, and development of a five-story hotel with retail and restaurant space—would not be implemented, and future development would not occur.

Alternative 2 – No Waterside Development in Sweetwater Channel Alternative

Alternative 2 would include the land use redesignations associated with the Balanced Plan; most of the GB Capital Component, including construction and operation of an RV park, modular cabins, dry boat storage, and up to four hotels; the Pasha Rail Improvement Component, including construction and operation of a rail connector track and storage track; the Pasha Road Closures Component; the Bayshore Bikeway Component, including development of Segment 5 of the Bayshore Bikeway; and the City Program – Development Component, including construction and operation of hotel, restaurant, retail, and/or a combination of tourist/visitor-serving commercial development north of Bay Marina Drive. However, under Alternative 2, the Pier 32 Marina would not be expanded into

Sweetwater Channel, which would avoid potential impacts on eelgrass, an essential fish habitat. Alternative 2 would include the proposed waterside Pier 32 Marina improvements of constructing an approximately 580-foot-long and 8-foot-wide dock with two 80-foot-long and 5-foot-wide gangways within the existing Pier 32 Marina basin north of the jetty.

Alternative 3 – GB Capital Component Phase 1 Only Alternative

Alternative 3 would include the land use redesignations associated with the Balanced Plan; the Pasha Rail Improvement Component, including construction and operation of a rail connector track and storage track; the Pasha Road Closures Component; the Bayshore Bikeway Component, including development of Segment 5 of the Bayshore Bikeway; and the City Program, including construction and operation of hotel, restaurant, retail, and/or a combination of tourist/visitor-serving commercial development north of Bay Marina Drive. However, only Phase 1 of the GB Capital Component would be included.

The landside Phase 1 GB Capital Component would include the construction and operation of up to 135 sites at a proposed RV resort; approximately 40,000 square feet of dry boat storage; up to 60 modular cabins; an approximately 10,000-square-foot, two-story administration/recreation building adjacent to the existing Pier 32 Marina buildings; an approximately 4,000-square-foot, two-story building with restrooms, laundry facilities, and staff support services; an approximately 4,000-square-foot maintenance building and associated approximately 8,200-square-foot maintenance yard; a public access corridor; view corridors; and a pedestrian path and other approved recreational amenities generally east of Parcel B6 of the Balanced Plan area and west of Paradise Marsh. The GB Capital Component Phase 1 waterside component would add 20 moorings in Sweetwater Channel; an approximately 620-foot-long and 8-foot-wide floating dock that includes up to 30 fingers, which would accommodate up to 50 boats; and an approximately 580-foot-long and 8-foot-wide dock with two 80-foot-long and 5-foot-wide gangways. Phase 1 would also allocate an area for future development of infrastructure to support aquaculture.

Phase 2 of the GB Capital Component would be eliminated. Hence, the following elements would not occur:

- Construction and operation of an up-to-three-story hotel with as many as 40 rooms generally on Parcel B1 of the Balanced Plan.
- Construction and operation of an up-to-four-story building, including approximately 16,500 square feet of retail space and a hotel with up to 60 rooms on Parcel B6 of the Balanced Plan.
- Construction and operation of an up to 11-story hotel with up to 282 rooms on Parcel B3 of the Balanced Plan.
- Construction and operation of an up-to-four-story hotel with up to 81 rooms, on Parcel B3 of the Balanced Plan.

Alternative 4 – Reduced Development Intensity Alternative

Under Alternative 4, the overall development intensity within the GB Capital Component would be reduced by approximately 50% by reducing the number of hotel rooms. Specifically, the height of the 11-story hotel and number of rooms proposed for that hotel would be reduced to 6 stories and 140 rooms and the 3-story, 40-room hotel would be eliminated and that area would continue in its current use as a small grassy area and putting green for Pier 32 Marina. The reduction in the size of

the features would enable the expansion of the Central Promenade extending from the existing Marina Way alignment to the viewpoint at Pier 32 from a 24-foot width to a 30-foot width. Similarly, under this alternative, the height of the five-story hotel and number of hotel rooms that are proposed for the City Program – Development Component would be reduced to a three-story hotel with 75 rooms.

All other project components would be to the same as the proposed project, including the land use redesignations associated with the Balanced Plan, a portion of the GB Capital Component (i.e., construction and operation of dry boat storage), the Pasha Rail Improvement Component (i.e., construction and operation of a rail connector track and storage track), the Pasha Road Closures Component, and one route of the Bayshore Bikeway Component (i.e., development of Segment 5 of the Bayshore Bikeway).

Environmentally Superior Alternative

Pursuant to CEQA, the EIR is required to identify the environmentally superior alternative. Although the No Project Alternative (Alternative 1) reduces the greatest number of significant impacts, CEQA requires that when the environmentally superior alternative is the No Project Alternative, another alternative should be identified. The Reduced Development Intensity Alternative (Alternative 4) reduces the second-largest number of significant impacts and is considered the environmentally superior alternative (see Table 7-3). Alternative 4 would reduce the height of the hotels and number of rooms proposed under the GB Capital Component and reduce the height of the five-story hotel and number of hotel rooms as part of the City Program – Development Component, which would reduce impacts related to aesthetics and visual resources; air quality and health risk; greenhouse gas emissions; noise and vibration; and transportation, circulation and parking. Alternative 4 would partially meet Objective #8 because the alternative would be consistent (with mitigation) with the City's environmental policies and the District's Climate Action Plan, Clean Air Program, and Jurisdictional Runoff Management Program. However, all other project objectives would be satisfied.

Table ES-1. Project Impacts and Mitigation Measures

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
4.1 Aesthetics and Visual Resources			
Impact-AES-1: Obstructed Views Within a Scenic Vista During Project Construction (GB Capital Component). Construction activities in the marina, on the jetty, and in Sweetwater Channel associated with the GB Capital Component (Phase 1) would result in significant temporary impacts on vista areas from KOP 2.	PS	**MM-AES-1: Install Construction Screening and Fencing (GB Capital Component).** GB Capital shall require their contractors to install construction-screening fencing around the perimeter of the jetty prior to the start of construction of the modular cabins and extended dock and pier with boat slips that shall shield construction activities from sight. The screening shall remain until construction equipment is removed from this area. Construction-screening fencing shall be depicted on construction plans and, prior to issuance of construction permits, the District's Development Services Department shall confirm such fencing is depicted on the appropriate construction plans. Construction screening shall include, at a minimum, installation of 8-foot-tall fencing covered with view-blocking materials, such as tarp or mesh in a color that blends in with the existing environment (e.g., green or blue), for the duration of the construction period. **MM-AES-2: Install Wayfinding and Public Access Signage (GB Capital Component).** Prior to construction of any GB Capital-related project elements within the marina, on the jetty, or in Sweetwater Channel that would affect the view provided by KOP 2, GB Capital or their contractors shall install temporary legible wayfinding signage in visible areas (e.g., in the general vicinity of the existing overlook at KOP 2 and where the existing waterside promenade on the Pier 32 Marina intersects with Goesno Place) that directs the public to other available scenic vistas that would not be affected by construction activities and would provide substantially similar views, such as KOP 4 and KOP 5. GB Capital shall require that contractors submit the signage	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		characteristics (e.g., size, color, materials) to the District's Development Services Department for review and approval prior installation of the signage—provided however, that the temporary wayfinding signage shall at a minimum depict the direction and distance to the alternate KOP(s). Photographic proof of the installation of wayfinding signage shall be submitted to the District's Development Services Department prior to the beginning of construction activities of the GB Capital Component (Phase 1) that involve construction in the marina, on the jetty, or in Sweetwater Channel and may be removed on completion of construction.	
Impact-AES-2: Inaccessibility of a Vista Area During Project Construction (GB Capital Component). Construction of the GB Capital Component (Phase 1) would partially obstruct the view from KOP 3 and could restrict access to the KOP for up to 2 years, resulting in a significant temporary impact on KOP 3.	PS	**MM-AES-3: Establish a Temporary Scenic Vista (GB Capital Component).** Prior to the commencement of construction of the GB Capital Component (Phase 1), GB Capital shall require its contractors to establish a temporary scenic vista directly east of KOP 3, adjacent to the western end of the existing Bayshore Bikeway bike path (before the existing path turns north), which shall be accessible to the public throughout the entirety of the construction phase of the GB Capital Component. The project proponent shall provide temporary wayfinding signage at the GB Capital Component site and signage at the temporary scenic vista identifying it as a temporary scenic vista. Photographic proof of the establishment of the temporary scenic vista shall be submitted to the District's Development Services Department prior to the beginning of construction activities of the GB Capital Component (Phase 1).	LTS
Impact-AES-3: Reduction in Availability of Existing Views (GB Capital Component). Operation of the GB Capital Component (Phase 1) would introduce several new features that would clutter the existing viewshed from KOP 2 and reduce availability of existing middleground and background views.	PS	**MM-AES-4**: **Install Permanent Wayfinding Signage for the Open Space Area on Jetty (GB Capital Component).** GB Capital shall construct the open space/park area on the jetty concurrently with the construction of the modular cabins and shall finish the open space area prior to or concurrently with said cabins. When construction of the modular cabins is complete, GB	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		Capital or its contractors shall install permanent wayfinding signage that is legible and in a publicly accessible area at KOP 2/the existing Pier 32 overlook to direct visitors to the open space area on the jetty, where views of Sweetwater Channel to the southeast, south, and southwest would be available. GB Capital or its contractors shall submit the signage characteristics (e.g., size, color, materials) to the District's Development Services Department for review and approval prior to installation—provided, however, that the wayfinding signage shall at a minimum contain the distance and direction to the open space area. Photographic proof of the wayfinding signage shall be submitted to the District's Development Services Department prior to issuance of the certificate of occupancy. **MM-AES-5: Extend the Existing Clear Zone Across Jetty (GB Capital Component).** The project proponent for the GB Capital Component shall extend the existing minimum 20-foot-wide clear zone along the Pier 32 overlook southward across the jetty. The existing minimum 20-foot-wide clear zone and the proposed 20-foot-wide clear zone on the jetty shall be identified on the project plans. The open space/park area proposed on the jetty can be located within the 20-foot-wide clear zone. Prior to issuance of a coastal development permit that includes construction of the modular cabins, the District's Development Services Department shall confirm that the existing and proposed minimum 20-foot-wide clear zone is identified and observed on the project plans.	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Impact-AES-4: Detrimental Change to Pepper Park from the Relocation of Granger Hall (Pepper Park Expansion of Balanced Plan). The relocation of Granger Hall could result in a significant change to the visual quality of Pepper Park and the surrounding waterfront area because of the size and location of the building.	PS	**MM-AES-6: Site Granger Hall to Reduce Impacts (Pepper Park Expansion of Balanced Plan).** If the District selects the option to relocate Granger Hall to Pepper Park, the building shall not be located directly adjacent to the waterfront or waterfront promenade, nor within any existing or proposed view corridors or public access corridors. If the District selects the option to relocate Granger Hall to Pepper Park, the building shall be located at one of the following locations, which are identified in order of their ability to reduce visual quality impacts: 1. The northwest corner of the proposed park expansion site; or 2. Elsewhere within the proposed park expansion site that is not directly adjacent to the waterfront or waterfront promenade, nor within any existing or proposed view corridors or public access corridors. If the District selects the option to relocate Granger Hall to Pepper Park, the District's Development Services Department shall review the proposed location for Granger Hall within Pepper Park prior to issuance of a coastal development permit for the park expansion and confirm that the proposed relocation site is either the northwestern corner of the proposed park expansion site or elsewhere within the proposed park expansion site that is not directly adjacent to the waterfront or waterfront promenade, nor within any existing or proposed view corridors or public access corridors. Design of the proposed buildings shall comply with any development and design standards of the Port Master Plan.	LTS
Impact-AES-5: Development of the GB Capital Component Would Potentially Affect Visual Character Within the Pier 32 Marina (GB Capital	PS	**MM-AES-7: Design the GB Capital Component to Provide Continuity (GB Capital Component).** To provide a natural continuity with the existing marina	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Component). The design of the GB Capital Component is intended to be consistent with the character of the existing marina; however, the GB Capital Component is not yet fully designed. Therefore, this project component may not be consistent with Section 30251 of the CCA.		complex, the GB Capital Component shall be designed and constructed using a similar architectural style and materials as the existing Pier 32 Marina. Prior to issuance of the Coastal Development Permit for both phases of the GB Capital Component, the District shall review plans for the GB Capital Component to ensure design continuity with the existing marina complex.	
Impact-AES-6: Reduction in Nighttime Views Due to Additional Lighting (GB Capital Component). Substantial lighting would be added to the GB Capital Component area as a result of the proposed development, including an RV park, retail, expanded marina, modular cabins, and hotel buildings that would disrupt wildlife behaviors and affect nighttime views. The impact would be significant.	PS	**MM-AES-8: Limit Lighting (GB Capital Component).** Proposed outdoor lighting in the parking lots, in the marina, and outside of buildings shall not exceed a correlated color temperature of 2,700 Kelvins in order to emit less high frequency blue light. The project proponent shall provide details (i.e., Kelvins) of the proposed lighting to the District's Development Services Department for review and approval prior to commencement of construction of the GB Capital Component. **MM-AES-9: Shield Security and Safety Lighting (GB Capital Component).** Security and safety lighting proposed around the RV park, retail, marina, jetty, parking lot, hotels, and other outdoor common spaces shall consist of full cutoff pole-top fixtures with full cutoff shields to minimize light spillage into adjacent properties and land uses. The project proponent shall provide details of the proposed lighting to the District's Development Services Department for review and approval prior to commencement of construction of the GB Capital Component.	LTS
4.2 Air Quality and Health Risk			
Impact-AQ-1: New Land Use Designations Not Accounted for in the RAQS and SIP (All Project Components). The proposed project would amend the District's PMP, and the City's General Plan, LCP, HDSAP, LUC, and Bicycle Master Plan to account for the proposed land use and jurisdictional changes. As these	PS	**MM-AQ-1: Update the RAQS and SIP with New Growth Projections (All Project Components).** Within 6 months from approval of the proposed project, the District and City shall provide SANDAG with revised employment growth forecasts that account for buildout of the proposed project. This includes the amendments to	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
land use changes were not known at the time the RAQS and SIP were last updated, this would result in a conflict with the applicable state and regional air quality plans because emissions associated with the proposed land uses could be greater than under existing land uses and these new emissions have not been accounted for in the current RAQS and SIP.		the District's PMP, and the City's General Plan, LCP, HDSAP, LUC, and Bicycle Master Plan to account for the proposed land use and jurisdictional changes. The District and the City shall coordinate with SANDAG and the SDAPCD to ensure the RAQS and SIP are updated as part of the next revision cycle to reflect the updated growth and land use assumptions of the project as well as the PMP and the City's General Plan as a whole.	
Impact-AQ-2: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Construction (All Components). Project emissions during construction, before mitigation, would exceed the applicable significance thresholds for the development portions of the Balanced Plan (NO_X only), Phase 1 of the GB Capital Component (VOC, NO_X, and CO), Phase 2 of the GB Capital Component (VOC only), and the City Program – Development Component (VOC only), as well as VOC, NO_X, CO, PM10, and PM2.5 collectively for all project components. The contribution of project-related emissions is considered significant because the project would exceed thresholds that have been set to attain the NAAQS and CAAQS, the purpose of which is to provide for the protection of public health.	PS	**MM-AQ-2: Implement Diesel Emission-Reduction Measures During Construction (All Project Components).** To control VOC, NO_X, CO, PM10, and PM2.5 emissions during construction, the project proponent/operator and/or its contractor(s) shall implement or require implementation by its construction contractor(s) the following measures during construction of their corresponding proposed project component, and shall provide verification to the District (or City). Prior to the commencement of construction activities of any project component, the project proponent for that project component shall submit a list of equipment to be used and their equipment specifications (model year, engine tier, horsepower) to the District's Development Services Department (for the components' within the District's jurisdiction) or the City's Community Development Department (for the component's within the City's jurisdiction) to ensure the construction equipment list is consistent with the following requirements. Following construction, the project proponent/operator and/or its contractor(s) shall provide written evidence that the construction was consistent with following requirements: • For all construction between 2022 and 2025, ensure that all off-road diesel equipment engines over 25 horsepower shall be equipped with EPA Tier 3 or cleaner engines, unless Tier 3 construction equipment is not available within 50 miles of the	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		project site. The project proponent shall document and submit evidence to the District prior to commencement of construction activities that Tier 3 or cleaner equipment shall be used, or that Tier 3 or better equipment is not available for use during the entire duration of that project's construction period through 2025. • For all construction beyond 2025, ensure that all off-road diesel equipment engines over 25 horsepower shall be equipped with EPA Tier 4 or cleaner engines, unless Tier 4 construction equipment is not available within 50 miles of the project site. The project proponent shall document and submit evidence to the District prior to commencement of construction activities that Tier 4 or cleaner equipment shall be used, or that Tier 4 or cleaner equipment is not available for use during the entire duration of that project's construction period beyond 2025. • Use renewable diesel fuel in all heavy-duty off-road diesel-fueled equipment. Renewable diesel must meet the most recent ASTM D975 specification for Ultra Low Sulfur Diesel and have a carbon intensity no greater than 50% of diesel with the lowest carbon intensity among petroleum diesel fuels sold in California. • Maintain all equipment in accordance with the manufacturers' specifications. • Turn off all construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, when not in use for more than 5 minutes. • Use zero or near-zero emissions equipment in-lieu of diesel or gasoline-powered equipment, where such zero or near-zero equipment is commercially available within 50 miles of the project site.	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		• Use diesel particulate filters (or the equivalent) if permitted under manufacturer's guidelines for on-road and off-road diesel equipment. **MM-AQ-3: Implement Fugitive Dust Control During Construction (All Project Components).** To control fugitive PM10 and PM2.5 emissions during construction of any project component, the project proponent/operator and/or its contractor(s) for each component shall implement the following dust control measures in compliance with SDAPCD Rule 55. The following shall be conditions in any Coastal Development Permit or City-issued permit (such as grading and building permits) and shall be implemented by that project proponent/operator and/or its contractor(s). • Water the grading areas at a minimum of three times daily to minimize fugitive dust. • Stabilize graded areas as quickly as possible to minimize fugitive dust. • Apply chemical stabilizer or pave the last 100 feet of internal travel path within the construction site prior to public road entry. • Install wheel washers adjacent to a paved apron prior to vehicle entry on public roads. • Remove any visible track-out into traveled public streets within 30 minutes of occurrence. • Wet wash the construction access point at the end of each workday if any vehicle travel on unpaved surfaces has occurred. • Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads. • Cover haul trucks or maintain at least 12 inches of freeboard to reduce blow-off during hauling. • Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 miles per hour (mph). • Cover/water onsite stockpiles of excavated material.	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		• Enforce a 15 mph speed limit on unpaved surfaces. • On dry days, sweep up any dirt and debris spilled onto paved surfaces immediately to reduce re-suspension of particulate matter caused by vehicle movement. Clean approach routes to construction sites daily for construction-related dirt in dry weather. • Hydroseed, landscape, or develop as quickly as possible all disturbed areas and as directed by the District and/or SDAPCD to reduce dust generation. • Limit the daily grading volumes/area. The project proponent/operator and/or its contractor(s) for each component shall submit evidence of the use of fugitive dust reduction measures to the District or City after the completion of construction. **MM-AQ-4: Use Low-VOC Interior and Exterior Coatings During Construction (GB Capital Component and City Program – Development Component).** To control VOC emissions during any painting activities during construction, the project proponent/operator and/or its contractor(s) for all phases of GB Capital Component (Phase 1 and Phase 2) and City Program – Development Component shall use low-VOC coatings for all surfaces that go beyond the requirements of SDAPCD Rule 67.0. If architectural coatings (painting) of any single component or multiple components would exceed 10,000 square feet per day, then each project component active on that day shall use coatings with a VOC content of 10 grams per liter or less for all surfaces to be painted. If architectural coatings (painting) of any single component or multiple components would be below 10,000 square feet per day, then each component shall use coatings with a VOC content of 75 grams per liter or less. Prior to the commencement of construction activities associated with the GB Capital Component, the	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		project proponent shall submit a list of coatings to be used, their respective VOC content, and a summary of surface area to be painted to the District's Development Services Department. Prior to the commencement of construction activities associated with the City Program – Development Component, the project proponent shall submit a list of coatings to be used, their respective VOC content, and a summary of surface area to be painted to the City's Community Development Department. The District and City, for their respective jurisdictions, may conduct inspections during construction to verify the use of low-VOC coatings. **MM-AQ-5**: **Use Modern Harbor Craft During Construction Activities (GB Capital Component and Balanced Plan).** Prior to commencing any waterside construction or activities, including the relocation of Granger Hall, the project proponent/operator and/or its contractor(s) for the Balanced Plan and the GB Capital Component shall ensure that any harbor craft, including but not limited to tugboats, pusher tugs, tow boats, work boats, crew boats, and supply boats for use during the duration of any in-water work, or in the relocation of Granger Hall, shall meet the following criteria: • For all construction between 2020 and 2025, ensure all equipment is Tier 3 or better (cleaner). • For all construction after 2025, ensure all equipment is alternatively fueled or electrically powered. If alternatively fueled or electrically powered equipment that emits less emission than Tier 4 or better (cleaner) are not available, then the project proponent shall ensure all equipment is Tier 4 or better. • Use renewable diesel fuel in all heavy-duty off-road diesel-fueled equipment. Renewable diesel must meet the most recent ASTM D975 specification for Ultra Low Sulfur Diesel and have a carbon intensity	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		no greater than 50 percent of diesel with the lowest carbon intensity among petroleum diesel fuels sold in California. If clean harbor craft are not available within 200 miles of the project site for the duration of all dredging activities, the project proponent/operator and/or its contractor(s) for the GB Capital Component shall prioritize use of equipment that is maintained and properly tuned in accordance with manufacturers' specifications. The project proponent/operator and/or its contractor(s) for the Balanced Plan and the GB Capital Component shall document and submit evidence to the District's Development Services Department and/or the City's Community Development Department prior to commencement of waterside construction activities, that equipment meeting the above tiering requirements or better standards is not available for use during the duration of all in-water activities. Regardless of the equipment used, the project proponent/operator and/or its contractor(s) for each component shall verify that all equipment has been checked by a mechanic experienced with such equipment and determined to be running in proper condition prior to admittance into the construction area. The project proponent/operator and/or its contractor(s) for each component shall submit a report prepared by the mechanic experienced with such equipment of the condition of the construction and operations vehicles and equipment to the District's Development Services Department and/or the City's Community Development Department prior to commencement of their use. **MM-AQ-6: Stagger Overlapping Construction Phases and Components (All Project Components)**. Each project proponent/operator and/or its contractor(s) shall submit a construction schedule and assumed construction activity at least 3 months prior to	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		the start of construction to the District and City. If grading, waterside construction activities (associated with GB Capital Component Phase 1), and relocation of Granger Hall (if this option is approved by the District) are to take place at the same time, they shall be reduced or staggered as to not to exceed daily air quality thresholds and such reduction or staggering shall be a condition of grading and building permits. However, multiple project components' grading may take place at the same time. The District and City, for their respective jurisdictions, may conduct inspections during construction to verify activity.	
Impact-AQ-3: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Operation (GB Capital Component, City Program Component, and Balanced Plan). Project emissions during operation, before mitigation, would exceed the applicable thresholds for VOC and PM10 for the GB Capital Component, City Program Component, and Balanced Plan. The contribution of project-related emissions is considered significant because the project would exceed thresholds set to attain the NAAQS and CAAQS, the purpose of which is to provide for the protection of public health.	PS	**MM-AQ-7**: **Restrict Installation of Fireplaces and Firepits in New Construction (City Program, GB Capital Component [Phase 1 and Phase 2], and Balanced Plan).** The proponent/operator and/or its contractor(s) of the City Program – Development Component, the GB Capital Component, and the Balanced Plan shall ensure that no outdoor woodburning stoves, fireplaces, or firepits are installed, and all fireplaces and firepits shall be fueled by natural gas. The project proponent/operator and/or its contractor(s) for each component shall submit evidence that no outdoor woodburning stoves, fireplaces, or firepits are wood-burning to the District (or City for City Program), and the District (or City for City Program) may conduct inspections during construction to verify the details that were submitted are accurate.	LTS
Impact-AQ-4: Health Effects During Construction (All Project Components). Project-related emissions during construction could contribute a significant level of air pollution from VOC, NO_X, CO, PM10, and PM2.5 emissions within the SDAB. Overlapping construction activities could exceed relevant thresholds that that have been set by SDAPCD to attain the NAAQS and	PS	Implement **MM-AQ-2** through **MM-AQ-6**, as described above.	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
CAAQS, the purpose of which is to provide for the protection of public health.			
Impact-C-AQ-1: New Land Use Designations Not Accounted for in the RAQS and SIP (All Project Components). The proposed project would amend the District's PMP, City's General Plan, LCP, HDSAP, LUC, and Bicycle Master Plan to account for the proposed land use and jurisdictional changes. As these land use changes were not known at the time the RAQS and SIP were last updated, this would result in a conflict with the applicable state and regional air quality plans because emissions associated with the proposed land uses could be greater than under existing land uses and these new emissions have not been accounted for in the current RAQS and SIP.	PS	Implement **MM-AQ-1**, as described above.	LTS
Impact-C-AQ-2: **Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Construction (All Project Components).** Project emissions during construction, before mitigation, would exceed the applicable significance thresholds for the Balanced Plan Components (NO_X only), Phase 1 of the GB Capital Component (VOC, NO_X, and CO), Phase 2 of the GB Capital Component (VOC only), and the City Program – Development Component (VOC only), as well as VOC, NO_X, CO, PM10, and PM2.5 collectively for all components. The contribution of project-related emissions is considered significant because the project would exceed thresholds that have been set to attain the NAAQS and CAAQS, the purpose of which is to provide for the protection of public health.	PS	Implement **MM-AQ-2 through MM-AQ-6**, as described above.	LTS
Impact-C-AQ-3: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Operations (GB Capital Component, City Program – Development Component, and Balanced Plan). Project emissions during operation, before mitigation,	PS	Implement **MM-AQ-7**, as described above.	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
would exceed the applicable thresholds for VOC and PM10 for all the GB Capital Component, City Program – Development Component, and Balanced Plan. The contribution of project-related emissions is considered significant because the project would exceed thresholds set to attain the NAAQS and CAAQS, the purpose of which is to provide for the protection of public health.			
Impact-C-AQ-4: Emissions that Contribute to Health Effects During Proposed Project Construction (All Project Components). Project-related emissions during construction could contribute a significant level of air pollution from VOC, NO_X, CO, PM10, and PM2.5 emissions within the SDAB. Overlapping construction activities could exceed relevant thresholds that that have been set by SDAPCD to attain the NAAQS and CAAQS, the purpose of which is to provide for the protection of public health.	PS	Implement **MM-AQ-2** through **MM-AQ-6**, as described above.	LTS
4.3 Biological Resources			
Impact-BIO-1: **Impacts on Estuary Seablite During Construction (Bayshore Bikeway Component Route 1 or Route 3).** Potential construction-related indirect or inadvertent impacts resulting in direct mortality of individual estuary seablite plants may occur during construction activities. These impacts would be significant.	PS	**MM-BIO-1: Conduct Surveys and Monitoring for Estuary Seablite(Bayshore Bikeway Component Route 1 or 3):** An authorized biologist shall be present onsite during construction within or adjacent to suitable habitat for estuary seablite to ensure that avoidance and minimization measures are in place according to specifications and to monitor construction in the vicinity of the estuary seablite population at a frequency necessary to ensure that avoidance and minimization measures are followed properly. The biological monitor shall report any noncompliance to CDFW within 24 hours. Before ground disturbance or other activities associated with construction of Bayshore Bikeway Component Route 1 or Route 3, a qualified botanist shall survey all proposed construction and access areas for presence of	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		special-status plant species. Preconstruction surveys shall occur during the appropriate season and in accordance with established protocols up to 1 year in advance of construction, provided temporary construction easements have been granted to construction areas. These surveys shall be conducted in all construction areas that contain suitable habitat for special-status plant species. These surveys shall be for the purpose of documenting plant locations relative to the construction areas and ensure avoidance, where feasible. If construction starts prior to the appropriate season, and it is unfeasible to conduct preconstruction surveys, then plant documentation for avoidance and ESA fencing shall rely on previous population locations. Populations of estuary seablite or other special-status plant species observed during these surveys shall be clearly mapped and recorded, along with the approximate numbers of individuals in each population and their respective conditions. To the maximum extent feasible, construction areas and access roads shall be adjusted to avoid loss of individual estuary seablite and impacts on habitat supporting this species.	
Impact-BIO-2: **Negative Effects on Salt Marsh Endemic Special-Status Wildlife Habitats (Bayshore Bikeway Component Route 1).** The permanent loss of 0.03 acre of coastal salt marsh habitat has the potential to negatively affect the state-listed Belding's Savannah sparrow, observed in the project area during site surveys; wandering skipper, observed directly adjacent to Bayshore Bikeway Component Route 1; and yellow rail, which has a moderate potential to occur within the salt marsh habitat in Paradise Marsh. These impacts would be significant without mitigation.	PS	**MM-BIO-2: Consult with CDFW Regarding Belding's Savannah Sparrow (Bayshore Bikeway Component, Route 1 Only).** If Route 1 is selected as the final alignment for the Bayshore Bikeway Component, and if impacts on salt marsh habitat are anticipated, the entity responsible (i.e., the City or Caltrans) for implementing the Bayshore Bikeway Route 1 shall consult with the CDFW to determine the need to seek an Incidental Take Permit (ITP) through Section 2081 of the Fish and Game Code for potential impacts on Belding's Savannah sparrow habitat. Compensatory mitigation shall be provided at a minimum of a 1:1 ratio in accordance with the ITP requirements.	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Impact-BIO-3: Impacts on Nesting Special-Status Salt Marsh Avian Species (GB Capital Component and Bayshore Bikeway Component Routes 1 and 3). Noise-generating impacts resulting from project construction activities (e.g., grading, site preparation) in close proximity to salt marsh habitats supporting Belding's savanna sparrow or light-footed Ridgway's rail could cause nest or chick abandonment. These impacts would be a violation of the MBTA or CFGC. Therefore, this impact would be potentially significant.	PS	**MM-BIO-3: Avoid Marsh Endemic Avian Species During the Breeding Season (GB Capital Component, and Bayshore Bikeway Component Route 1 and Route 3).** All project construction activities occurring within 300 feet of salt marsh habitat (e.g., portions of Bayshore Bikeway Component Route 1 and Route 3 and some of the GB Capital Component) shall take place outside of the light-footed Ridgway's rail and Belding's Savannah sparrow breeding season (i.e., February 15–September 15); no construction work shall occur within 300 feet of the marsh during this time period.	LTS
Impact-BIO-4: Impacts on Nesting Osprey (Pepper Park Expansion, Pasha Rail Improvement Component, and Roadway Configuration in Balanced Plan). Noise-generating impacts resulting from project construction activities in close proximity to osprey nests, such as those proposed for the Pepper Park Expansion, Pasha Rail Improvement Component, and roadway improvements envisioned in the Balanced Plan, could cause nest or chick abandonment. These impacts would be a violation of the MBTA or CFGC. Therefore, this impact would be potentially significant.	PS	**MM-BIO-4: Avoid Impacts on Osprey During Nesting Season (January 15–June 15) (Pepper Park Expansion and Roadway Configuration in Balanced Plan, and Pasha Rail Improvement Component).** To ensure nesting ospreys are not disturbed, the project proponent for the Balanced Plan (specifically, the roadway improvements and Pepper Park expansion), as well as the project proponent for the Pasha Rail Improvement Component, shall avoid all noise-generating construction activities during the osprey nesting season (January 15–June 15) within all proposed construction areas or shall implement all of the following: • Surveys of historical nest locations maintained by the District shall be conducted to determine current occupancy status within 72 hours prior to construction/onset of noise-generating activities. If nests are occupied, or if the nest occupancy cannot be determined due to the height of the nest, the area shall be flagged and mapped on the construction plans, along with an avoidance buffer of sufficient size to avoid impacts on the nest. The project biologist shall determine the size of the avoidance buffer based on behavioral observations, ambient versus construction-related noise, and other data	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		gathered during nest monitoring. All work within the avoidance buffer shall cease until the nesting cycle is complete. • Surveys of all potential osprey nest locations, including existing utility poles, shall be conducted within 72 hours prior to construction/onset of noise-generating activities within 500 feet of any proposed work areas where noise-generating activities could affect nest success. These surveys could be conducted concurrent with those anticipated under **MM-BIO-5** for MBTA avian species, or conducted separately. If nests are occupied, or if the nest occupancy cannot be determined due to the height of the nest, the area shall be flagged and mapped on the construction plans, along with an avoidance buffer of sufficient size to avoid impacts on the nest. The project biologist shall determine the size of the avoidance buffer based on behavioral observations, ambient versus construction-related noise, and other data gathered during nest monitoring. All work within the avoidance buffer shall cease until the nesting cycle is complete.	
Impact-BIO-5: Potential Disturbance or Destruction of Nests Protected by the Migratory Bird Treaty Act and CFGC (Pepper Park Expansion and Roadway Configuration in Balanced Plan, GB Capital Component, and Bayshore Bikeway Component Routes 1 and 3). Removal of Diegan coastal sage scrub and coastal salt marsh habitat during construction, as well as noise from construction activity, could impede the use of bird breeding sites during the nesting season (February 15–September 15). The destruction of an occupied nest would be considered a significant impact if it were a violation of the MBTA or CFGC. Therefore, this impact would be potentially significant.	PS	**MM-BIO-5: Avoid Impacts on MBTA Avian Species, Including Non-Listed Avian Species (Pepper Park Expansion and Roadway Configuration in Balanced Plan, GB Capital Component, and Bayshore Bikeway Component Routes 1 and 3).** To ensure compliance with the MBTA and similar provisions under CFGC Sections 3503 and 3503.5, the project proponent for the Balanced Plan (specifically, roadway improvements, Pepper Park expansion), GB Capital Component, Pasha Rail Improvement Component, Bayshore Bikeway Component, and City Program – Development Component shall conduct all vegetation removal during the non-breeding season between September 15 and January 14 or shall implement the following:	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		• If construction activities are scheduled between January 15 and September 14, a biological survey for nesting bird species shall be conducted within the proposed impact area and at least a 300-foot buffer within 72 hours prior to construction. The nesting bird survey is applicable to all avian species protected under the MBTA and Fish and Game Code. The number of surveys required for covering this area shall be commensurate with the schedule for construction and the acreage that shall be covered. Multiple surveys for nesting birds shall be separated by at least 48 hours in order to be confident that nesting is detected, but the survey shall be no more 72 hours prior to the onset of construction. • If any active nests are detected, the area shall be flagged and mapped on the construction plans, along with an avoidance buffer of sufficient size to avoid impacts on the nest. The project biologist shall determine the size of the avoidance buffer based on behavioral observations, ambient versus construction-related noise, and other data gathered during nest monitoring. All work within the avoidance buffer shall cease until the nesting cycle is complete. • Nest buffers, nest survey techniques, and nest monitoring requirements shall be determined based on the project proponent's avian biologist. In accordance with this mitigation measure, nest buffers shall be implemented to ensure compliance with the MBTA and Fish and Game Code Sections 3503, 3503.5, and 3513. Additionally, if grading activities, construction activities, or other noise-generating activities lapse for more than 48 hours, an additional nesting bird survey shall be conducted. The results of the nesting bird surveys and buffers, including any determinations to reduce buffers, shall	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		be included in a monitoring report submitted to the project proponent. • If a nesting bird management plan is required as part of the site-specific impact analysis and mitigation for a particular component, then the parameters in this mitigation measure shall be applied as the minimum requirements for that particular component. More restrictive measures than these can be stipulated in the nesting bird management plan for that particular project component.	
Impact-BIO-6: Bat Roost Site Direct Impacts (GB Capital Component, and Bayshore Bikeway Component Route 1 and Route 3). Removal or trimming of suitable roost trees could directly harm roosting bats, resulting in mortality of common or special-status bat species. These impacts could result in large bat mortality events and would be significant absent mitigation.	PS	**MM-BIO-6: Conduct Surveys for Maternal Bat Roost Site Surveys and Avoid Seasonal Impacts (GB Capital Component and Bayshore Bikeway Component Route 1 or Route 3).** Prior to the start of project construction on the GB Capital Component or Bayshore Bikeway Component Route 1 or Route 3, a qualified bat biologist shall conduct a daytime assessment to examine structures and trees suitable for bat use. If bat sign is observed at that time, then nighttime bat surveys shall be conducted to confirm whether the structures or trees with suitable habitat identified during the preliminary assessment are utilized by bats for day roosting or night roosting, ascertain the level of bat foraging and roosting activity at each of these locations, and perform exit counts to determine visually the approximate number of bats utilizing the roosts. Acoustic monitoring shall also be used during these surveys to identify the bat species present and determine an index of relative bat activity for that site on that specific evening. If maternity sites are identified during the preconstruction bat habitat assessment, then no construction activities at that location shall be allowed during the maternity season (i.e., April 1–August 31) unless a qualified bat biologist has determined that the young have been weaned. If maternity sites are present, and it is anticipated that construction activities cannot be	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		completed outside of the maternity season, then the qualified bat biologist, in consultation with CDFW, shall complete bat exclusion activities at maternity roost sites either as soon as possible after the young have been weaned or outside of the maternity season, or the qualified bat biologist, in coordination with CDFW, otherwise approves. The removal of mature trees and snags shall be minimized to the greatest extent practicable. Prior to tree removal or trimming, qualified bat biologist shall examine large trees and snags to ensure that no roosting bats are present. Palm frond trimming, if necessary, shall be conducted outside the maternity season (i.e., April 1–August 31) to avoid potential mortality to flightless young and outside the bat hibernation season (November–February).	
Impact-BIO-7: Potential Disruption of Fishes, Green Sea Turtle, and Marine Mammals During Pile Driving Activities (GB Capital Component). Impact-hammer and vibratory-hammer pile-driving activities would potentially generate enough underwater noise to injure (Level A Harassment) or alter behavior (Level B Harassment) of green sea turtles, fishes, and marine mammals. This impact would be potentially significant.	PS	**MM-BIO-7: Implement a Marine Mammal, Fish Injury, and Green Sea Turtle Monitoring Program During Pile-Driving Activities (GB Capital Component).** Prior to construction activities involving impact-hammer and vibratory in-water pile driving, the project proponent shall prepare and implement a marine mammal, fish injury, and green sea turtle monitoring program. The District shall approve this monitoring program, which shall include the following requirements: • For a period of 15 minutes prior to the start of in-water construction, a qualified biologist, retained by the project proponent (i.e., GB Capital) and approved by the District's Director of Development Services or their designee, shall monitor around the active pile driving areas to ensure that special-status species are not present. Monitors can also monitor for injured fish and stop work if there is an observation of concern.	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		• The construction contractor shall not start work if any observations of special-status species are made prior to starting pile driving. • In-water pile driving shall begin with soft starts, gradually increasing the force of the pile driving. This allows marine mammals, green sea turtles and fishes to flee areas adjacent to pile driving activities. • All monitors must meet the minimum requirements as defined by the National Oceanic Atmospheric Administration's *Guidance for Developing a Marine Mammal Monitoring Plan* (NOAA 2019). • Recommendations in the Marine Mammal and Green Sea Turtle Monitoring Program shall be consistent with the District's Regional General Permit (RGP) 72, which requires that "…Permittee shall ensure that if in-water construction is performed during the tern nesting season that turbidity is monitored during in-water construction. If the in-water work area is 20% more turbid than ambient conditions, the Permittee shall cease work immediately until the turbidity dissipates within the work area. If the turbidity cannot be dissipated within the work area, the Permittee shall install a silt curtain to control the turbidity during in-water construction."	
Impact-BIO-8: Potential Trampling of Sensitive Vegetation and Special-Status Plant Species, Potential Behavior Modification for Special-Status Wildlife or Declines in Habitat Quality Through Invasion of Exotic Plants (Bayshore Bikeway Component Route 1). Operation of Bayshore Bikeway Component Route 1 could result in pedestrians or cyclists traveling off-trail, which could result in direct mortality of terrestrial candidate, sensitive, or special-status plant species. These actions could also result in special-status wildlife modifying the foraging or	PS	**MM-BIO-8: Install Fencing Adjacent to Bayshore Bikeway Component Route 1 (Bayshore Bikeway Component Route 1).** Prior to operation of Bayshore Bikeway Component Route 1, the project proponent for the Bayshore Bikeway Component shall install fencing along the edge of the Route 1 to prevent unauthorized access and trampling into Paradise Marsh. Fencing shall only be required along segments of Route 1 that are within approximately 300 feet of the coastal salt marsh areas. Fence material and design should be sufficient to prevent human encroachment on the eastern side of the	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
breeding behavior to avoid humans. Humans could also introduce invasive species propagules, reducing the quality of habitat for these species. These impacts would be potentially significant.		Bayshore Bikeway Component Route 1 segment along Paradise Marsh.	
Impact-BIO-9: Reflective Materials and Increased Bird Strikes (GB Capital Component and City Program – Development Component). Use of reflective building and glass finishes associated with hotel development may confuse birds in flight, leading to an increase in strikes. This impact would be potentially significant.	PS	**MM-BIO-9: Implement Bird Strike Reduction Measures on New Structures (GB Capital Component and City Program – Development Component).** Prior to issuance of any building construction/permits for any portion of the GB Capital Component or City Program – Development Component where the building would be taller than three stories, an ornithologist (retained by the respective project proponent and pre-approved by the District for the GB Capital Component or the City for the City Program – Development Component) familiar with local species will review building plans to verify that the proposed building has incorporated specific design strategies that qualify for Leadership in Energy and Environmental Design (LEED) credits, as described in the American Bird Conservancy's *Bird-Friendly Building Design* (Sheppard and Phillips 2015) or an equivalent guide to avoid or reduce the potential for bird strikes. Final building design must demonstrate to the satisfaction of the ornithologist that design strategies shall be in accordance with the *Bird-Friendly Building Design*, by incorporating strategies to minimize the threat to avian species, including but not limited to the following: • Building Façade and Site Structures ○ Develop a building façade and site design that are visible as physical barriers to birds. • Elements such as Netting, Screens, Grilles, Shutters, and Exterior Shades to Preclude Collisions. ○ Incorporate materials that have a low threat potential based on the Bird Collision Threat Rating and the Bird Collision Threat Rating Calculation	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		Spreadsheet to achieve a maximum total building Bird Collision Threat Rating of 15 or less. - High Threat Potential: Glass: Highly Reflective and/or Completely Transparent Surface - Least Threat Potential: Opaque Surface • Exterior Lighting ○ Fixtures not necessary for safety, entrances, and circulation shall be automatically shut off from midnight until 6:00 a.m. ○ Exterior luminaires must meet these requirements for all exterior luminaires located inside project boundary based on the following: - Photometric characteristics of each luminaire when mounted in the same orientation and tilt as specified in the project design; and - The lighting zone of the project property (at the time construction begins). Classify the project under one lighting zone using the lighting zones definitions provided in the *Illuminating Engineering Society and International Dark Sky Association (IES/IDA) Model Lighting Ordinance (MLO) User Guide* (2011). • Performance Monitoring Plan ○ The project proponent (e.g., GB Capital) shall develop a 3-year post-construction monitoring plan to routinely monitor the effectiveness of the building and site design in preventing bird collisions for buildings over three stories high. Include methods to identify and document locations where repeated bird strikes occur, the number of collisions, the date, the approximate time, and features that may be contributing to collisions. List potential design solutions and provide a process for adaptive management.	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		o The project proponent (e.g., GB Capital) shall provide an adaptive monitoring report demonstrating which design strategies have been incorporated and the results of adaptive monitoring for District review.	
Impact-BIO-10: Disruption of Wildlife Behavior Due to Additional Lighting (GB Capital Component). New lighting would be added to the GB Capital Component area as a result of the proposed development, including an RV park, retail, expanded marina, modular cabins, and hotel buildings, that would disrupt wildlife behaviors. The impact would be significant.	PS	Implement **MM-AES-8: Limit Lighting (GB Capital Component)**, as described above.	LTS
Impact-BIO-11: Potential Loss of Diegan Coastal Sage Scrub During Project Construction (GB Capital Component and Bayshore Bikeway Component Route 1 and Route 3). Construction activities, such as grading, have the potential to remove Diegan coastal sage scrub (including restored and baccharis-dominated forms). The potential reduction in Diegan coastal sage scrub would be significant.	PS	**MM-BIO-10: Provide Compensatory Mitigation for Impacts on Coastal Sage Scrub (GB Capital Component and Bayshore Bikeway Component Route 1 and Route 3).** Compensation for permanent impacts on Diegan coastal sage scrub habitats shall occur at a minimum 1:1 ratio, with compensation occurring as creation, enhancement, or restoration. The compensation can occur through a combination of one or more of the following: onsite enhancement, re-establishment, or creation; or payment into an agency-approved in-lieu fee, mitigation program, or other approved mitigation provider. Compensation type and final mitigation ratios shall be determined during the project's coastal development permitting phase. Temporary impacts on Diegan coastal sage scrub habitats shall be replaced at a 1:1 ratio through onsite restoration. Onsite, in-kind restoration of temporarily affected Diegan coastal sage scrub would occur at their current locations on completion of construction, consisting of returning affected areas to original contour grades, decompacting the soil, and replanting with hydroseeding or container	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		plantings using a plant palette composed of native species from the local region prior to disturbance. All revegetated areas shall avoid the use of any nonnative plant species. For any areas that shall be restored, enhanced, or created onsite, the project proponent (e.g., National City for Bayshore Bikeway; GB Capital, etc.) shall prepare a Habitat Mitigation and Monitoring Plan (HMMP) prior to project construction in accordance with requirements of the CCC. The HMMP shall outline all required components, including, but not limited to, a project description, goal of the mitigation, mitigation site, implementation plan, monitoring plan, completion of mitigation/ success criteria, and contingency measures. The HMMP shall address the onsite restoration of temporary impact areas and compensatory mitigation at on- or offsite areas to mitigate for permanent impacts.	
Impact-BIO-12: Potential Loss of Coastal Salt Marsh During Project Construction (Bayshore Bikeway Component Route 1). Construction activities, such as grading, have the potential to remove coastal salt marsh habitat during construction of Bayshore Bikeway Component Route 1. The potential reduction in coastal salt marsh habitat would be significant.	PS	**MM-BIO-11**: **Provide Compensatory Mitigation for Impacts on Coastal Salt Marsh Habitat (Bayshore Bikeway Component Route 1).** If Bayshore Bikeway Component Route 1 is chosen, then prior to issuance of a Coastal Development Permit, the project proponent of Bayshore Bikeway Component shall request and participate in stakeholder meetings with applicable agencies (e.g., CCC, NMFS, CDFW, USFWS, RWQCB, USACE, and the District) to identify locations within the San Diego region to mitigate impacts on coastal salt marsh habitat. All feasible efforts to avoid impacts on coastal salt marsh shall be made during final project design. If avoidance cannot be accomplished for Bayshore Bikeway Component Route 1, then areas for onsite restoration or enhancement within the Paradise Marsh shall be prioritized for the required compensatory mitigation. Prior to the commencement of construction activities, the project proponent shall demonstrate that compensatory mitigation for impacts on coastal salt	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		marsh have been secured at mitigation ratios agreed on by the appropriate resource agencies and that all agency concerns have been addressed. Typical mitigation ratios for coastal salt marsh habitat are 2:1 to 3:1, depending on site conditions at both the impact site and mitigation site.	
Impact-BIO-13: Potential Reduction in Eelgrass Habitat and Productivity During Construction (GB Capital Component). In-water construction activities have the potential to affect eelgrass beds within the waterside portion of the GB Capital Component. Impacts may include direct physical disturbance to the beds from anchoring and staging of equipment, temporary shading from construction-related equipment, and elevated turbidity levels from construction-related activities such as pile driving. The potential reduction in eelgrass habitat would be significant.	PS	**MM-BIO-12: Develop an Eelgrass Mitigation and Monitoring Plan in Compliance with the California Eelgrass Mitigation Policy (GB Capital Component).** Prior to the start of any in-water construction, the project proponent shall retain a qualified marine biologist to develop an eelgrass mitigation plan in compliance with the California Eelgrass Mitigation Policy. The mitigation plan shall be submitted to the District and resource agencies for approval and shall be implemented to compensate for losses to eelgrass in the event that the surveys described below indicate the project affected eelgrass. Preconstruction eelgrass surveys would occur in the future when construction and project design details are available, which would require supplemental environmental review. The specific eelgrass mitigation plan elements shall include the following: • Prior to the commencement of any in-water construction activities, a qualified marine biologist that the project proponent retains and the District approves shall conduct a preconstruction eelgrass survey per the California Eelgrass Mitigation Policy. Surveys for eelgrass shall be conducted during the active eelgrass growing season (March–October), and results shall be valid for 60 days, unless completed in September or October; if completed in those months, results shall be valid until resumption of the next growing season. The qualified marine biologist shall submit the results of the preconstruction survey to the District and resource agencies within 30 days.	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		• Within 30 days of completion of in-water construction activities, a qualified marine biologist that the project proponent retains and the District approves shall conduct a postconstruction eelgrass survey during the active eelgrass growing season. The postconstruction survey shall evaluate potential eelgrass impacts associated with construction. On completion of the postconstruction survey, the qualified marine biologist shall submit the survey report to the District and resource agencies within 30 days. • At least 2 years of annual postconstruction eelgrass surveys shall be conducted during the active eelgrass growing season. The additional annual surveys shall evaluate the potential for operational impacts on eelgrass. Specifically, the surveys shall be designed to evaluate potential shading impacts noted in the project's marine biological assessment (Appendix G). • In the event that impacts on eelgrass are detected, the project proponent shall implement the following: ○ A qualified marine biologist that the project proponent retains for the GB Capital Component and the District approves shall develop a mitigation plan for in-kind mitigation per the California Eelgrass Mitigation Policy. The qualified marine biologist shall submit the mitigation plan to the District and resource agencies within 60 days following the postconstruction survey. ○ Mitigation for eelgrass impacts shall be at a ratio of 1.2:1, and the project proponent shall determine eelgrass mitigation sites prior to the commencement of construction activities. ○ Mitigation shall commence within 135 days of any noted impacts on eelgrass, such that mitigation	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		commences within the same eelgrass growing season that impacts occur. • Upon completing mitigation, the qualified biologist shall conduct mitigation performance monitoring at performance milestones of 0, 12, 24, 36, 48, and 60 months. The qualified biologist shall conduct all mitigation monitoring during the active eelgrass growing season and shall avoid the low-growth season (November–February). Performance standards shall be in accordance with those prescribed in the California Eelgrass Mitigation Policy (Appendix G). • The qualified biologist shall submit the monitoring reports and spatial data to the District and resource agencies within 30 days after the completion of each monitoring period. The monitoring reports shall include all of the specific requirements identified in the California Eelgrass Mitigation Policy (Appendix G). **MM-BIO-13: Implement Overwater Coverage Mitigation Through the USACE Permitting Process in Consultation with CCC, NMFS, USFWS, RWQCB, and the District to Compensate for Loss of Open Water Habitat and Function (GB Capital Component)**. The waterside GB Capital Component within Sweetwater Channel shall require implementation of regulatory agency-approved mitigation prior to implementation of the project to reduce overwater coverage. This may include reduction in overwater coverage at another location in San Diego Bay, restoration of upland riparian habitats, restoration of submerged aquatic vegetation, water quality-improvement techniques, restoration of soft-bottom habitats, such as mud flats, or use of mitigation bank credits or credits from the USACE permit for the construction of the marina from uplands or paying an in lieu fee (once a program is developed).	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		Detailed shading studies would be required in the future when construction and project design details are available, which would require supplemental environmental review. The project proponent shall conduct the shading studies and implement the following: • Prior to issuance of a Coastal Development Permit, the project proponent (i.e., GB Capital) shall request a pre-application meeting with the USACE, in consultation with CCC, NMFS, USFWS, RWQCB, and the District, to identify locations within San Diego Bay or the San Diego region to mitigate impacts on both sensitive avian species and nearshore habitat associated with loss of beneficial uses associated with overwater coverage and loss of open water-habitat function as a result of increased structural fill within San Diego Bay. • Prior to the commencement of construction activities of the waterside improvements of the GB Capital Component, the project proponent shall implement mitigation options that the regulatory agencies identified above review and approve. • The project proponent shall secure all applicable permits for the mitigation of overwater coverage prior to commencement of waterside construction.	
Impact-BIO-14: Potential Loss of Eelgrass Habitat Due to Overwater Coverage or Shading Impacts During Operations (GB Capital Component). Operations associated with the waterside portion of the GB Capital Component have the potential to affect eelgrass beds due to shading of eelgrass habitat from overwater structures, including the floating dock and docked vessels. This impact would be potentially significant.	PS	Implement **MM-BIO-12** and **MM-BIO-13**, as described above.	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Impact-BIO-15: Potential Loss of Eelgrass Habitat Due to Operation of Aquaculture Facilities (GB Capital Component). Operations associated with aquaculture within the channel may involve the culture of oysters or other shellfish, which would require an "off bottom" method with the shellfish in floating or suspended containment structures. The structures and the shellfish within would shade the bottom and therefore displace eelgrass. This impact would be potentially significant.	PS	Implement **MM-BIO-12** and **MM-BIO-13**, as described above.	LTS
4.4 Cultural Resources, Tribal Cultural Resources, and Paleontological Resources			
Impact-CUL-1: Relocation of Granger Hall Has the Potential to Result in a Substantial Adverse Change in the Significance of a Historical Resource (Pepper Park Expansion of Balanced Plan). It is possible that racking, vibration, or additional harmful conditions would be present during relocation that may cause structural or ornamental damage to the building. Measures to protect character-defining features such as the interior organ screen and mural on plaster have yet to be specified. Without appropriate protective measures in place, the building could sustain damage to character-defining features severe enough to prohibit restoration. Impacts would be potentially significant.	PS	**MM-CUL-1: Prepare and Implement Granger Hall Relocation and Rehabilitation Plan for Building Relocation and Reuse in Accordance with the Secretary of the Interior's Standards for Rehabilitation (Pepper Park Expansion of Balanced Plan).** The project proponent for relocation of Granger Hall to Pepper Park shall retain a team of qualified professionals to prepare and implement a Relocation and Rehabilitation Plan for Granger Hall. The team shall be led by a professionally licensed architect who also meets the Secretary of the Interior's (SOI's) Professional Qualification Standards as a Historic Architect (36 Code of Federal Regulations [CFR] Part 61). The team shall include a licensed structural engineer and a skilled contractor with demonstrated comparable experience relocating historic buildings and conducting associated protection and salvage work. Qualifications shall be demonstrated in the Relocation and Rehabilitation Plan. The architect, structural engineer, and contractor shall be approved by the District and City. The architect, structural engineer, and contractor shall draft the plan as specified below and submit the plan to the District and City for review and approval. To ensure that the building's character-defining features are retained, the	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		architect shall consult the updated Relocation Feasibility Study (2017) for Granger Hall prepared by Heritage Architecture & Planning, and the Character-Defining Feature Inventory of Granger Hall (2018) prepared by ICF, which is Appendix C of Appendix I. If the District or City do not have in-house expertise to review the Relocation and Rehabilitation Plan, they shall hire and oversee an SOI-qualified historic architect to review the plan and the project proponent shall pay for said expert. The Relocation and Rehabilitation Plan shall also be reviewed and approved by the District and the City Development Services Department and, prior to approval by the District and City, shall also be available for review and comment by interested local historic preservation groups. These reviews shall occur prior to the District's issuance of a Coastal Development Permit for any potential relocation of Granger Hall to Pepper Park, prior to the City's issuance of a Building Moving Permit and Transportation Permit, and prior to the commencement of any construction activities at the current site of Granger Hall. The Relocation and Rehabilitation Plan shall ensure that Granger Hall shall be protected during the move and shall be moved without irreparable damage to its character-defining historic fabric. The plan shall include the following: • **Shoring, Stabilization, Protection, and Demolition Procedures and Specifications**: the Relocation and Rehabilitation Plan shall include detailed procedures, drawings, and specifications prepared by the architect and structural engineer that specify methods and procedures of shoring, stabilization, and protection of historic elements, and demolition of non-historic elements. The Relocation and Rehabilitation Plan shall also outline each phase of work, the materials and equipment to be used, the	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		extent of demolition and line cut locations, and transportation-related considerations such as the relocation route, street closures, and timing of the building relocation. The Relocation and Rehabilitation Plan shall be illustrated with architectural and structural drawings and include specifications detailing clearly to the contractor the required methods and procedures for relocation of the building according to the SOI Standards for the Rehabilitation of Historic Properties. • **Provisions for Character-Defining Architectural Elements to be Disassembled, Stored, and Reassembled at Relocation Site**: the Relocation and Rehabilitation Plan shall specify provisions for disassembling, cataloging, handling, transporting, protecting, and storing (at the relocation site) all character-defining architectural elements to be removed from the building prior to relocation and reinstalled at the Pepper Park relocation site. • **Analysis of Project Conformance with SOI Standards for the Rehabilitation of Historic Properties**: the Relocation and Rehabilitation Plan shall include project drawings for the proposed rehabilitation and reuse of Granger Hall at the Pepper Park relocation site. The reviewing SOI-qualified historic architect shall prepare an SOI Standards Analysis of the project outlining the project's conformance with the SOI Standards for the Rehabilitation of Historic Properties. If building relocation precedes identification of a new use and associated rehabilitation design, the project proponent shall engage the SOI-qualified historic architect to prepare a supplemental SOI Standards Analysis Memo and it shall be submitted along with the first permit or entitlement application for the new use of Granger Hall in Pepper Park to ensure	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		that the project adheres to the SOI Standards for Rehabilitation of Historic Properties. • **Provisions for Monitoring of Relocation and Confirmation of Reuse**: the Relocation and Rehabilitation Plan shall incorporate provisions for a pre-demolition onsite meeting with the architect, structural engineer, contractor, District, City Development Services Department, and reviewing SOI-qualified historic architect at both the current building site and relocation site. The plan shall incorporate provisions for architectural monitoring and reporting to ensure that the relocation and reuse of Granger Hall both adhere to the SOI Standards for Rehabilitation of Historic Properties. The plan shall specify the frequency of monitoring visits by the historic architect. At a minimum, the historic architect shall conduct monitoring prior to each major phase of work following the pre-demolition meeting and continuing monitoring through issuance of the certificate of occupancy at the Pepper Park relocation site. Upon issuance of the certificate of occupancy at the Granger Hall relocation site, the historic architect shall prepare a Final Monitoring Report to document fulfillment of **MM-CUL-1**, which the District and the City shall keep on file.	
Impact-CUL-2: Excavation Related to the Proposed Project Would Potentially Damage Significant Archaeological Resources (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component). Ground-disturbing construction activities associated with the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component have the potential to unearth significant unknown archaeological resources	PS	**MM-CUL-2: Prepare and Implement a Cultural Resources Monitoring and Discovery Plan (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component).** Prior to the commencement of any ground-disturbing activities within the areas requiring archaeological monitoring (i.e., activities occurring in the area that is both east of the mean high tide line and south of Bay Marina Drive), the respective project proponent shall retain a qualified archaeologist (approved by the District for components	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
that may be in areas of archaeological sensitivity (defined as the area east of the mean high tide line and south of Bay Marina Drive). Impacts would be potentially significant.		within its jurisdiction or the City for components within its jurisdiction) who meets the SOI Professional Qualification Standards (36 CFR 61) to prepare a CRMDP for designated portions of the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component that are sensitive for archaeological resources, defined as the area east of the mean high tide line and south of Bay Marina Drive. Monitoring areas are defined as land-based ground-disturbing activities associated with project components east of the mean high tide line and south of Bay Marina Drive. Procedures to follow in the event of an unanticipated discovery apply to all applicable project components. The CRMDP shall be submitted to the City and District, as applicable based on the jurisdiction in which the project component is located, and shall be reviewed and approved by the relevant agency. If the District or City do not have in-house expertise to review the CRMDP, they shall respectively hire an expert who meets the SOI Professional Qualification Standards (36 CFR 61) and the project proponent shall pay for said expert. The District's CRMDP review shall ensure that appropriate procedures to monitor construction and treat unanticipated discoveries are in place. District review and approval of the CRMDP shall occur prior to the commencement of any construction activities subject to the requirements of the CRMDP. The CRMDP shall include required qualifications for archaeological monitors and supervising archaeologists and shall lay out protocols to be followed in relation to cultural resources, including both archaeological and tribal cultural resources. The CRMDP shall provide a summary of sensitivity for buried cultural resources. In addition, it shall describe the roles and responsibilities of archaeological and Native American monitors, District	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		personnel (as applicable), City personnel (as applicable), and construction personnel. Additionally, the CRMDP shall describe specific field procedures to be followed for archaeological monitoring, including field protocol and methods to be followed should there be an archaeological discovery. Evaluation of resources; consultation with Native American individuals, tribes, and organizations; treatment of cultural remains and artifacts; curation; and reporting requirements shall also be described. The CRMDP shall also delineate the requirements, procedures, and notification processes in the event human remains are encountered. The CRMDP shall delineate the area(s) of archaeological sensitivity that require archaeological monitoring. Mapping of the area(s) shall be made available to the project proponent, who shall incorporate this information into the respective construction specifications for the Balanced Plan Component, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component. **MM-CUL-3: Prepare and Implement a Cultural Resources Awareness Training Prior to Project Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component).** Prior to, and for the duration of, project-related ground disturbance in the areas east of the mean high tide line and south of Bay Marina Drive, the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component respective project proponent shall hire a qualified archaeologist who meets the SOI Professional Qualifications Standards (36 CFR 61) and is approved by the District for components within its jurisdiction, and	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		the City for components within its jurisdiction, to provide cultural resources awareness training to project construction personnel. The training shall include a discussion of applicable laws and penalties under the law; samples or visual representations of artifacts that might be found in the project vicinity; and the steps that must be taken if cultural resources are encountered during construction, including the authority of archaeological monitors, if required to be on site during the project, to halt construction in the area of a discovery. A hard copy summary of cultural resource laws, discovery procedures, and contact information shall be provided to all construction workers. Completion of the training shall be documented for all construction personnel, who shall be required to sign a form confirming they have completed the training. The form shall be retained by the project proponent to demonstrate compliance with this mitigation measure. **MM-CUL-4: Conduct Archaeological Monitoring in Areas of Sensitivity (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component)**. Within the areas of the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component east of the mean high tide line and south of Bay Marina Drive, the project proponent shall retain a qualified archaeologist(s) who meets the SOI Professional Qualifications Standards as promulgated in 36 CFR 61. The qualified archaeologist(s) shall supervise archaeological monitoring of all proposed ground-disturbing activities for the project in the archaeologically sensitive portion(s) of the project site. The archaeologically sensitive portion(s) of the project site is defined as land-based ground-disturbing activities associated with project components east of the mean	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		high tide line and south of Bay Marina Drive. Monitoring actions and procedures shall be completed per the CRMDP described in **MM-CUL-2**. **MM-CUL-5: Conduct Native American Monitoring in Areas of Sensitivity (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component).** A Kumeyaay Native American monitor shall be present at all areas designated for archaeological monitoring—defined as land-based ground-disturbing activities associated with the portions of the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component that are east of the mean high tide line and south of Bay Marina Drive. This monitoring shall occur on an as-needed basis and is intended to ensure that Native American concerns are considered during the construction process. Native American monitors shall be retained from tribes who have expressed an interest in the project and have participated in discussions with the District. If a tribe has been notified of scheduled construction work and does not respond, or if a Native American monitor is not available, work may continue without the Native American monitor. Roles and responsibilities of the Native American monitors shall be detailed in the CRMDP described in mitigation measure **MM-CUL-2**. Costs associated with Native American monitoring shall be borne by the project proponent.	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Impact-CUL-3: Excavation Related to the Proposed Project Would Potentially Damage Tribal Cultural Resources (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component). Ground-disturbing construction activities associated with the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component have the potential to unearth unknown tribal cultural resources that may be in areas of archaeological sensitivity (defined as the area east of the mean high tide line and south of Bay Marina Drive). Impacts would be potentially significant.	PS	Implement **MM-CUL-2** through **MM-CUL-5**, as described above.	LTS
Impact-CUL-4: Excavation Related to the Proposed Project Would Potentially Disturb Buried Paleontological Resources (City Program – Development Component, Bayshore Bikeway Component). Excavation associated with the proposed project at the City Program – Development Component and portions of all three of the proposed Bayshore Bikeway Component routes are underlain by Bay Point Formation (specifically, segments of Route 1 through the northwestern portion of Paradise Creek marsh and along Marina Way near Bay Marina Drive, Harrison Avenue, 23rd Street, McKinley Avenue, and 19th Street in the vicinity of McKinley Avenue; segments of Route 2 from Marina Way through the Best Western Marina Gateway hotel property and Cleveland Avenue as far north as 19th Street; and the segments of Route 3 along Marina Way west of the Best Western Marina Gateway hotel, Bay Marina Drive, McKinley Avenue, and the Harbor Drive on-ramp to I-5). Excavation in excess of 1,000 cubic yards and to depths greater than 10 feet could result in direct or indirect impacts on a unique	PS	**MM-CUL-6: Conduct Paleontological Monitoring in Areas of Sensitivity (City Program – Development Component, Bayshore Bikeway Component).** A qualified paleontologist meeting the Society for Vertebrate Paleontology qualifications (retained by the respective project proponent and pre-approved by the District or City as applicable) shall review the paleontological records search prepared by the San Diego Natural History Museum to confirm the locations of paleontologically sensitive areas as well as the existing literature for the proposed project area. The following monitoring measures shall be implemented to recover remains before they are lost or destroyed. • Where highly sensitive fossil-bearing deposits are likely to be affected and the proposed construction methodology allows for the recovery of fossils, then paleontological monitoring shall be incorporated into the project specifications. • A qualified paleontologist shall attend preconstruction meetings to consult with the grading and excavation contractors concerning excavation	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
paleontological resource or site. Impacts would be potentially significant.		schedules, paleontological field techniques, and safety issues. A qualified paleontologist is defined as an individual with an M.S. or Ph.D. in paleontology or geology who is familiar with paleontological procedures and techniques, who is knowledgeable in the geology and paleontology of San Diego County, and who has worked as a paleontological monitoring project supervisor in the county for at least 1 year. • A paleontological monitor shall be on site on a full-time basis during the original cutting of previously undisturbed deposits of high-sensitivity formations to inspect exposures for contained fossils. The paleontological monitor shall work under the direction of the qualified paleontologist. A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials. • If fossils are discovered, the paleontologist (or paleontological monitor) shall recover them. In most cases, this fossil salvage can be completed in a short period of time; however, some fossil specimens, such as a complete large mammal skeleton, may require an extended salvage period. In these instances the paleontologist (or paleontological monitor) shall be allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for the recovering of small fossil remains, such as isolated mammal teeth, it may be necessary to set up a screen-washing operation on site. • Fossil remains collected during the monitoring and salvage portion of the program shall be cleaned, repaired, sorted, and catalogued. • Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited (as a donation) in a scientific institution with permanent	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		paleontological collections, such as the San Diego Natural History Museum. Donation of the fossils by the project proponent shall be accompanied by financial support for initial specimen storage. • A final data recovery report shall be completed that outlines the results of the monitoring program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.	
4.5 Energy			
Impact-EN-1: Potential Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources During Construction (Balanced Plan, Bayshore Bikeway Component, GB Capital Component, Pasha Rail Improvement, Pasha Road Closures Component, and City Program – Development Component). Implementation of the proposed project would have the potential to result in the wasteful, inefficient, or unnecessary consumption of energy resources during construction.	PS	Implement **MM-GHG-1**, **MM-GHG-2**, **MM-GHG-3**, **MM-GHG-5**, **MM-GHG-6, and MM-GHG-7**, as described below.	LTS
Impact-EN-2: Potential Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources During Operation (Balanced Plan, GB Capital Component, and City Program – Development Component). Implementation of the proposed project would have the potential to result in the wasteful, inefficient, or unnecessary consumption of energy resources during operation.	PS	Implement **MM-GHG-1**, **MM-GHG-2**, **MM-GHG-3**, **MM-GHG-5**, **MM-GHG-6, and MM-GHG-7**, as described below.	LTS
Impact-EN-3: Potential Inconsistency with Applicable Energy Use Reduction Plans (All Project Components). The proposed project has the potential to result in an inconsistency with the District's CAP and the City's CAP as the proposed project does not include measures specific to either CAP.	PS	Implement **MM-GHG-2** and **MM-GHG-3**, as described below.	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
4.6 Greenhouse Gas Emissions and Climate Change			
Impact-GHG-1: Inconsistency with District and City Climate Action Plan Numerical Targets (All Project Components). Project construction and operations would not meet numerical efficiency targets in 2025 or 2050. Therefore, prior to the application of any mitigation, the impact related to consistency with relevant plans, policies, and programs would be significant,	PS	**MM-GHG-1: Implement Diesel Emission-Reduction Measures During Project Construction and Operation (All Project Components).** The project proponent/operator and/or its contractor(s) for each component of the proposed project shall implement the following measures during project construction and operation and, where specified below, submit reports demonstrating compliance for review and approval to the District's Development Services Department for project components in the District's jurisdiction or the City's Community Development Department for project components in the City's jurisdiction. 1. Construction: The project proponent shall verify that all construction equipment is maintained and properly tuned, in accordance with manufacturers' specifications. Prior to the commencement of construction activities using diesel-powered vehicles or equipment, the project proponent shall verify that all vehicles, as well as equipment, have been checked by a certified mechanic and determined to be running in proper condition prior to admittance into the delivery driveway and loading areas. The project proponent shall submit a report prepared by the certified mechanic regarding the condition of construction vehicles and equipment to the District's Development Services Department or the City's Community Development Department prior to commencement of their use. 2. Operation: The project proponent shall limit all delivery truck idling times by shutting down trucks when not in use and reducing the maximum idling time to less than 3 minutes. The project proponent	SU

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		shall install clear signage regarding the limitation on idling time at the delivery driveway and loading areas and shall submit annual reports of violators to the District. This measure shall be implemented by the hotel and marina supervisors. Repeat violators shall be subject to penalties pursuant to the California Airborne Toxics Control Measure, 13 CCR Section 2485. **MM-GHG-2: Comply with District CAP Measures (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Bayshore Bikeway Component [Only Area within District Jurisdiction]).** Prior to approval of the final design plans, the project proponent/operator and/or its contractor(s) for each component of the proposed project shall list all applicable GHG-reducing measures from the District CAP and demonstrate in the plans where the measures shall be located. A report demonstrating compliance shall be submitted to the District's Development Services Department. Buildings associated with the proposed project components shall achieve certification under the Leadership in Energy and Environmental Design (LEED) program, or the Green Building Rating Systems of the Green Building Certification Institute, or achieve equivalent efficiency if it is determined that LEED certification cannot be achieved because of site factors or other reasons. For construction where LEED or an equivalent program or efficiency certification is not applicable (e.g., dry boat storage), all other applicable measures below shall be required, subject to verification of the District's Development Services Department. The following is a list of the proposed sustainability measures that would be consistent with the District CAP. The measures shall be required and incorporated into	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation

		the Coastal Development Permit for each project component.
		• General Measures
		  ○ No commercial drive-through shall be implemented.
		• Water
		  ○ Indoor water consumption shall be reduced to a level 20% lower than that of the baseline buildings (defined by LEED as indoor water use after meeting Energy Policy Act of 1992 fixture performance requirements) through use of low-flow fixtures in all administrative and common-area bathrooms.
		  ○ Plantings with low water requirements and drip irrigation shall be installed, and domestic water demand from the City system for landscaping purposes shall be minimized.
		• Waste
		  ○ Compliance with AB 939 shall be mandatory and shall include recycling at least 50% of solid waste; recycling of demolition debris shall be mandatory and shall include recycling at least 65% of all construction and demolition debris. This measure shall be applied during construction and operation of the proposed project.
		  ○ All commercial, restaurant, and retail uses shall recycle, compost food waste and other organics, and use reusable products instead of disposable products to divert solid waste from the landfill stream.
		  ○ Recycled, regional, and rapidly renewable materials shall be used where appropriate during project construction.
		• Energy	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		○ Energy-efficiency design features that exceed 2019 Title 24 California Building Energy Efficiency Standards shall be incorporated. The measures that may be implemented are as follows: • Use only fluorescent lights, light-emitting diodes (LEDs), compact fluorescent lights, or the most energy-efficient lighting that meets required lighting standards and is commercially available. This measure also requires replacement of existing lighting on the project site if not already highly energy efficient. • Install occupancy sensors for all vending machines in new buildings at the project site. • Implement onsite renewable energy to new buildings, unless the system cannot be built due to structural and operational constraints. (Evidence must be provided if not feasible, subject to District concurrence.) • Install co-generation systems (i.e., combined heat and power systems) in new buildings constructed at the project site. • Install high-performance glazing with a low solar heat gain coefficient value that reduces the amount of solar heat allowed into the building, without compromising natural illumination. • Install increased insulation. • Install cool roofs with an R value of 30 or better. • Install sun shading devices as appropriate. • Install high-efficiency heating, ventilating, and air conditioning systems and controls. • Install programmable thermostats. • Install variable frequency drives.	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		• Install Energy Star–rated appliances. • Install shore power capabilities where suitable upgrades are feasible in marinas. • Mobile Sources ○ Ensure that at a minimum 6% of parking spaces are equipped with electric vehicle (EV) charging stations. ○ Implement a construction transportation demand management plan for each project component that promotes ride-sharing, vanpooling, alternate work schedules, and offsite parking with shuttles and provides subsidies for transit passes to reduce worker trips and parking demand, as described in **MM-TRA-2**. ○ Implement an operational transportation demand management plan for each project component that requires mandatory employer commuting measures, such as carpooling, transit subsidies, and vanpools, to reduce worker trips and parking demand, as described in **MM-TRA-2**. ○ Ensure that bicycle parking is included in the project design. The number of spaces shall be, at a minimum, 5% of the new automobile parking spaces. • Carbon Sequestration and Land Use ○ Install trees and shrub planters throughout the project area as part of the landscape plan. **MM-GHG-3: Comply with the Applicable City CAP Measures (City Program – Development Component).** Prior to approval of the final design plans, the project proponent/operator and/or its contractor(s) for the City Program – Development Component shall list all GHG-reducing measures from the City's CAP and demonstrate in the plans where these measures shall be located. A report demonstrating compliance shall be submitted to	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		the City's Community Development Department. Buildings associated with the proposed project component shall achieve certification under the LEED program, or the Green Building Rating Systems of the Green Building Certification Institute, or achieve equivalent efficiency if it is determined that LEED certification cannot be achieved because of site factors or other reasons. The following is a list of proposed sustainability measures from the City CAP that shall be required and incorporated into the Coastal Development Permit for the City Program – Development Component. • Incorporate energy efficiency design features that exceed 2019 Title 24 California Building Energy Efficiency Standards. • Prioritize parking for high-occupancy vehicles as well as carpooling, vanpooling, and transit vehicles. • Ensure that at a minimum 6% of parking spaces are equipped with electric-vehicle charging stations. • Ensure that bicycle parking is included in the project design. The number of spaces shall be, at a minimum, 5% of the new automobile parking spaces. • Encourage telework programs and alternative work schedules for new businesses. • Provide financial incentives for commuters to reduce the number of vehicle trips by walking, bicycling, using public transit, and carpooling. • Implement programs to reduce, reuse, and recycle construction and demolition waste. • Encourage rooftop gardens for flat-roofed commercial buildings. • Pursue a pump efficiency cycling schedule. • Adopt water efficiency principles similar to the Ahwahnee Water Principles for Resource Efficient Land Use (available at	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		https://www.lgc.org/wordpress/docs/ahwahnee/ahwahnee_water_principles.pdf), such as the following: ○ Use compact, mixed-use, walkable, and transit-oriented community designs; ○ Preserve and restore natural resources such as wetlands, floodplains, recharge zones, riparian areas, open spaces, and native habitats; ○ Utilize water holding areas such as creek beds, recessed athletic fields, ponds, cisterns, and other features that serve to recharge groundwater, reduce runoff, improve water quality, and decrease flooding; ○ Use low-water plantings in landscaping; ○ Use permeable surfaces for hardscapes; ○ Install dual plumbing that allows reuse of gray water; ○ Maximize use of recycled water in the project design; ○ Use low-flow toilets, efficient clothes washers, and efficient water-using industrial equipment in new construction; and ○ Maximize the use of drought-proof water supplies, such as groundwater treatment and brackish water desalination. • Install trees and shrub planters throughout the project area as part of the landscape plan. **MM-GHG-4: Use Modern Harbor Craft for Waterside Construction Activities (GB Capital Component and Balanced Plan).** Prior to commencing any waterside construction or activities, including the relocation of Granger Hall, the project proponent/operator and/or its contractor(s) for the Balanced Plan and the GB Capital Component shall ensure that any harbor craft, including, but not limited to, tugboats, pusher tugs, tow boats, work	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		boats, crew boats, and supply boats for use during the duration of any in-water work, shall meet the following criteria: • For all construction between 2020 and 2025, ensure all equipment is Tier 3 or better (cleaner); • For all construction after 2025, ensure all equipment is alternatively fueled or electrically powered. If alternatively fueled or electrically powered equipment that emits fewer emissions than Tier 4 or better (cleaner) equipment is not available, then the project proponent shall ensure all equipment is Tier 4 or better; and • Use renewable diesel fuel in all heavy-duty, off-road diesel-fueled equipment. Renewable diesel must meet the most recent ASTM D975 specification for ultra-low-sulfur diesel and have a carbon intensity no greater than 50% of diesel with the lowest carbon intensity among petroleum diesel fuels sold in California. If clean harbor craft are not available within 200 miles of the project site for the duration of all dredging activities, the project proponent/operator and/or its contractor(s) for the Balanced Plan and the GB Capital Component shall prioritize the use of equipment that is maintained and properly tuned in accordance with manufacturers' specifications. The project proponent/operator and/or its contractor(s) for each Balanced Plan and the GB Capital Component shall document and submit evidence to the District's Development Services Department or the City's Community Development Department, depending upon the jurisdiction that the project component is located in, prior to commencement of waterside construction activities. Regardless of the equipment used, the project proponent/operator and/or its contractor(s) for each project component with waterside construction activities shall verify that all equipment has been checked	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		by a mechanic experienced with such equipment and determined to be running in proper condition prior to admittance into the construction area. The project proponent/operator and/or its contractor(s) for each project component with waterside construction activities shall submit a report prepared by the mechanic experienced with such equipment regarding the condition of the vehicles and equipment for construction and operations to the District's Development Services Department or the City's Community Development Department, depending upon the jurisdiction that the project component is located in, prior to commencement of their use. **MM-GHG-5: Implement Electric Heating and Zero-Net-Energy Buildings (GB Capital Component, Balanced Plan, City Program – Development Component).** The City and the District shall require all development to meet the state's ZNE standards, if and when adopted as part of the California Building Code. In addition, the City and the District shall encourage project developers to construct buildings that are ZNE. Prior to issuance of any Coastal Development Permit or City-issued permit, as applicable, the project proponents/operators and/or its contractor(s) shall submit a feasibility analysis, prepared by a qualified consultant, regarding the construction of buildings as ZNE, and the project component shall implement all feasible measures identified in the feasibility analysis. This report will be subject to verification by the District for the GB Capital Component (all phases) and Balanced Plan and subject to verification by the District for the City Program – Development Component. **MM-GHG-6: Implement a Renewable Energy Project Onsite, or Other Verifiable Actions or Activities on Tidelands or Within Another Adjacent Member City, or Purchase the Equivalent GHG Offsets from a CARB–**	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		Approved Registry or a Locally Approved Equivalent Program (GB Capital Component and Balanced Plan). A. Options for Reducing GHG Emissions. To reach the numerical efficiency metric, each project proponent shall, in order of preference, considering availability of structures and feasibility, implement the following, which may be combined with consideration to the preference described below: 1. Incorporate renewable energy a) On the project site; b) Within the District's jurisdiction; or c) Within the adjacent community or member city outside of the District's jurisdiction. 2. Undertake other verifiable actions or activities on tidelands approved by the District, such as electrification of equipment, including vehicles and trucks; financial contribution to a future local or GHG emission reduction program on tidelands; or similar activities or actions that reduce operational GHG emissions; 3. Purchase GHG emission offset credits that (1) are real, additional, permanent, quantifiable, verifiable, and enforceable, as specified in California Health and Safety Code Section 38562(d)(1) and (2) and further defined in CCR Title 17, Section 95802 (see below); (2) use a protocol consistent with or as stringent as CARB protocol requirements under CCR Title 17, Section 95972(a); and (3) are issued by an CARB-approved offset registry.[1] For offset credits from projects outside California, the project proponent must demonstrate in	

[1] Currently approved offset registries include the American Carbon Registry (ACR), Climate Action Reserve (CAR), and Verra (formerly the Verified Carbon Standard). See: https://ww3.arb.ca.gov/cc/capandtrade/offsets/registries/registries.htm.

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		writing to the satisfaction of the District that the offset project meets requirements equivalent to or stricter than California's laws and regulations, ensuring the validity of offset credits. For purposes of this section, the definitions are as follows: a) "Real" means, in the context of offset projects, that GHG reductions or GHG enhancements result from a demonstrable action or set of actions and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the offset project boundary and account for uncertainty and the potential for activity-shifting leakage and market-shifting leakage. [17 CCR 95802] b) "Additional" means, in the context of offset credits, GHG emission reductions or removals that exceed any GHG reduction or removals otherwise required by law, regulation, or legally binding mandate, and that exceed any GHG reductions or removals that would otherwise occur in a conservative BAU scenario. [17 CCR 95802] c) "Permanent" means, in the context of offset credits, either that GHG reductions and GHG removal enhancements are not reversible, or when GHG reductions and GHG removal enhancements may be reversible, that mechanisms are in place to replace any reversed GHG emission reductions and GHG removal enhancements to ensure that all credited reductions endure for at least 100 years. [17 CCR 95802]	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		d) "Quantifiable" means, in the context of offset credits, the ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the offset project boundary while accounting for uncertainty and activity-shifting leakage and market-shifting leakage. [17 CCR 95802] e) "Verifiable" means that a non-California offset project is located in a state that has laws and regulations equivalent to or stricter as California's with respect to ensuring the validity of offsets and an Offset Project Data Report assertion is well documented and transparent such that it lends itself to an objective review by an accredited verification body. [17 CCR 95802] f) "Enforceable" means the authority for the offset purchaser to hold the offset provider liable and to take appropriate action if any of the above requirements are not met. [adapted from definition in 17 CCR 95802 for use in this measure] "Enforceable" also means that the offset must be backed by a legal instrument or contract that defines exclusive ownership and the legal instrument can be enforced within the legal system of the State of California. B. Required Annual GHG Emissions Reductions: The option(s) implemented pursuant to paragraph A above shall achieve the following required GHG reductions for the activities of the proposed project, assuming full buildout of each project component: • Balanced Plan (only Pepper Park Expansion) = 836 $MTCO_2e$ per year or 4,317 MWh/year.	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		• GB Capital = 6,627 $MTCO_2e$ per year or 34,219 MWh/year. The required reductions may be reduced by the District, based on the actual amount of development and activities associated with that development and the other adjustment provisions specified below. C. Implementation of GHG Emissions Reduction Options. Prior to becoming operational and annually thereafter, the District shall notify the project proponent of the option(s) available for achieving its respective annual maximum GHG required emissions reduction, as identified in paragraph B above, in the order of priority specified above, and the project proponent(s) shall: 1. Develop a renewable energy project(s) or take other verifiable actions or activities identified by the District to meet or partially meet the required amount of $MTCO_2e$ or MWh reductions specified above. a) If the project proponent develops a renewable energy project(s), or takes other verifiable actions or activities to reduce GHG emissions, the project proponent shall submit to the District's Energy Department/Team, for its review and approval, a report specifying the annual amount of $MTCO_2e$ or MWh reduction achieved by the renewable energy project(s), or actions, or activities; submit evidence that the renewable energy project(s), actions, or activities are not being used to offset GHG emissions for any other project or entity; and submit any other information requested by the District's Energy Department/Team to verify the amount of GHG emissions reduction achieved by the renewable energy project, or actions or activities (collectively, "GHG Emission Reduction Report").	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		b) If the GHG Emission Reduction Report is approved by the District, a reduction to the required offsets shall be calculated by the District's Energy Department/Team, and the reduction of offsets shall be transmitted to the project proponent in writing and the amount of GHG reduction shall count toward the required GHG reduction for the proposed project component ("GHG Reduction"). 2. Purchase GHG emission offsets in conformance with paragraph A(3) above in an amount sufficient to achieve the required reduction of $MTCO_2e$ or MWh specified above, which may be decreased by the amount of annual $MTCO_2e$ or MWh reduction that is achieved by any renewable energy project(s) or other verifiable action or activities if developed and/or implemented pursuant to paragraph (1) above. The purchase of offsets to achieve the required reduction in $MTCO_2e$ or MWh shall occur as follows: a) Each project component shall purchase offsets for its first 2 years of operation; b) Purchase offsets at least annually thereafter, prior to becoming operational, beginning with the third year of operation, for the life of the proposed project component's operations or until the termination of a lease agreement (for GB Capital Component only) between the District and the project proponent. The project proponent may purchase more than 1 year of operation emissions offsets, consistent with the amount of $MTCO_2e$ or MWh reduction specified above for the corresponding project component.	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		c) On or before the first year of operation of the respective project proponent and annually thereafter, the project proponent shall submit certificates for offsets purchased to achieve the required GHG emission reductions, including written verification by a qualified consultant approved by the District that the offsets meet the requirements for GHG emission offset credits set forth in paragraph A(3) above, to the District's Energy Department/Team. D. Adjustments to Required GHG Emissions Reductions. If the project proponent complies with paragraphs A(1) or A(2) above, in an amount that meets the total amount of $MTCO_2e$ or MWh reductions specified above, or complies with paragraph A(3) above and purchases the requisite offsets, or does a combination of paragraphs A(1), (2), and (3) to meet the reduction target, then nothing further shall be required under this mitigation measure. 1. Reduction of Emissions through Development of a Renewable Energy Project Requirement: Although none are identified at this time, the project proponent may be required by the District to develop a renewable energy project at any time during the life of the project (subject to future approvals and the priorities listed above) and may request a reduction of required offsets. If any reduction in offsets is requested by the project proponent because of the development of a renewable energy project(s), the project proponent shall submit a GHG Emission Reduction Report for the District Energy Department's/Team's review, pursuant to the process specified above in paragraph C(1) above, and required	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		offsets shall be determined by the District and reduced. 2. Reduction of Emissions through Verifiable Actions or Activities on Tidelands Requirement: Although none are identified at this time, the project proponent may be required by the District to take other verifiable actions or activities at any time during the life of the project (subject to future approvals and the priorities listed above) and may request a reduction of required offsets. If any reduction in offsets is requested by the project proponent because of the other verifiable actions or activities on tidelands, the project proponent shall submit a GHG Emission Reduction Report for the District Energy Department's/Team's review pursuant to the process specified above in paragraph C(1), and required offsets shall be determined by the District and reduced. 3. Reduction of Emissions through Purchase of Offsets: Subsequent to purchasing GHG emission offsets pursuant to paragraph C(2) above, the project proponent's future annual purchase of offsets to achieve the GHG emissions reduction specific in paragraph B above may be adjusted if the development is less than assumed here, which is the following: o Balanced Plan includes a 2.54 acre park. o GB Capital Component landside features, including 134 RV sites; 40,000 square feet of dry boat storage; 60 modular cabins; 10,000-square-foot administration/recreation building; 10,000-square-foot building with restrooms, laundry facilities, and staff support services in the vicinity of the existing marina buildings; and a 4,000-square-foot maintenance building and associated	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		approximately 8,200-square-foot maintenance yard northeast of the proposed dry boat storage. Waterside uses include 20 moorings in Sweetwater Channel; 620-foot-long and 8-foot-wide floating dock that includes up to 30 fingers, which accommodate up to 50 boats; and a 580-foot-long and 8-foot-wide dock with two 80-foot-long and 5-foot-wide gangways within the existing marina basin north of the jetty to accommodate up to 25 smaller boats. 4. The District or a District-retained consultant (at the project proponent cost) shall calculate, using the best available science, the amount of unused GHG reduction offsets, based on the actual development constructed and in operation. Any unused offsets shall be used for the next year of operation of the project component, and the project proponent shall purchase offsets in the necessary amounts (required amount less any unused offsets) for the subject year. This procedure shall be repeated on an annual basis. In the event that newly discovered information shows that an offset, previously certified as compliant pursuant to paragraph C(3)(c), does not comply with the requirements of paragraph A(3), the project proponent shall purchase an equivalent amount of replacement offsets that comply with the requirements of paragraph A(3) within 30 days of receiving notice of the noncompliance. After verification of unused and available offsets, unused offsets may replace previously compliant offsets should those offsets subsequently be determined noncompliant with paragraph A(3). At the project proponent's written request to the District, the project proponent may waive the annual adjustment	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		described above and purchase the required $MTCO_2e$ or MWh offsets on at least an annual basis. **MM-GHG-7: Implement a Renewable Energy Project On Site, or Other Verifiable Actions or Activities Within National City or Within an Adjacent Community, or Purchase the Equivalent GHG Offsets from a CARB–Approved Registry or a Locally Approved Equivalent Program (City Program – Development Component).** A. Options for Reducing GHG Emissions. To reach the numerical efficiency metric, each project proponent shall, in order of preference, considering availability of structures and feasibility, implement the following, which may be combined with consideration to the preference described below: 1. Incorporate renewable energy a) On the project site; b) Within the City's jurisdiction; or c) Within the adjacent community or the city. 2. Undertake other verifiable actions or activities approved by the City, such as electrification of equipment, including vehicles and trucks; financial contribution to a future local or GHG emission reduction program within the city; or similar activities or actions that reduce operational GHG emissions; 3. Purchase GHG emission offset credits that (1) are real, additional, permanent, quantifiable, verifiable, and enforceable, as specified in California Health and Safety Code Section 38562(d)(1) and (2) and further defined in California CCR Title 17, Section 95802 (see below); (2) use a protocol consistent with or as stringent as CARB protocol requirements under CCR Title 17, Section 95972(a); and (3) are issued by an CARB-	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		approved offset registry.[2] For offset credits from projects outside California, the project proponent must demonstrate in writing to the satisfaction of the City that the offset project meets requirements equivalent to or stricter than California's laws and regulations, ensuring the validity of offset credits. For purposes of this section, the definitions are as follows: a) "Real" means, in the context of offset projects, that GHG reductions or GHG enhancements result from a demonstrable action or set of actions and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the offset project boundary and account for uncertainty and the potential for activity-shifting leakage and market-shifting leakage. [17 CCR 95802] b) "Additional" means, in the context of offset credits, GHG emission reductions or removals that exceed any GHG reduction or removals otherwise required by law, regulation, or legally binding mandate and that exceed any GHG reductions or removals that would otherwise occur in a conservative BAU scenario. [17 CCR 95802] c) "Permanent" means, in the context of offset credits, either that GHG reductions and GHG removal enhancements are not reversible, or when GHG reductions and GHG removal enhancements may be reversible, that mechanisms are in place to replace	

[2] Ibid.

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		any reversed GHG emission reductions and GHG removal enhancements to ensure that all credited reductions endure for at least 100 years. [17 CCR 95802] d) "Quantifiable" means, in the context of offset credits, the ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the offset project boundary while accounting for uncertainty and activity-shifting leakage and market-shifting leakage. [17 CCR 95802] e) "Verifiable" means that a non-California offset project is located in a state that has laws and regulations equivalent to or stricter as California's with respect to ensuring the validity of offsets and an Offset Project Data Report assertion is well documented and transparent such that it lends itself to an objective review by an accredited verification body. [17 CCR 95802] f) "Enforceable" means the authority for the offset purchaser to hold the offset provider liable and to take appropriate action if any of the above requirements are not met. [Adapted from definition in 17 CCR 95802 for use in this measure.] "Enforceable" also means that the offset must be backed by a legal instrument or contract that defines exclusive ownership and the legal instrument can be enforced within the legal system of the State of California. A. Required Annual GHG Emissions Reductions:	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		The option(s) implemented pursuant to paragraph A above shall achieve the following required GHG reductions for the activities of the proposed project, assuming full buildout of each project component: • City Program = 3,549 $MTCO_2e$ per year or 18,323 MWh/year. The required reductions may be reduced by the City, based on the actual amount of development and activities associated with that development and the other adjustment provisions specified below. C. Implementation of GHG Emissions Reduction Options. Prior to becoming operational and annually thereafter, the City shall notify the project proponent of the option(s) available for achieving its respective annual maximum GHG required emissions reduction, as identified in paragraph B above, in the order of priority specified above, and the project proponent(s) shall: 1. Develop a renewable energy project(s) or take other verifiable actions or activities identified by the City to meet or partially meet the required amount of $MTCO_2e$ or MWh reductions specified above. a) If the project proponent develops a renewable energy project(s), or takes other verifiable actions or activities to reduce GHG emissions, the project proponent shall submit to the City's Community Development Department, for its review and approval, a report specifying the annual amount of $MTCO_2e$ or MWh reduction achieved by the renewable energy project(s), or actions, or activities; submit evidence that the renewable energy project(s), actions, or activities are not being used to offset GHG emissions for any other project or entity; and submit any other information requested by the City's Community Development	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		Department to verify the amount of GHG emissions reduction achieved by the renewable energy project, or actions or activities (collectively, "GHG Emission Reduction Report"). b) If the GHG Emission Reduction Report is approved by the City, a reduction to the required offsets shall be calculated by the City's Community Development Department, and the reduction of offsets shall be transmitted to the project proponent in writing and the amount of GHG reduction shall count toward the required GHG reduction for the proposed project ("GHG Reduction"). 2. Purchase GHG emission offsets in conformance with paragraph A(3) above in an amount sufficient to achieve the required reduction of $MTCO_2e$ or MWh specified above, which may be decreased by the amount of annual $MTCO_2e$ or MWh reduction that is achieved by any renewable energy project(s) or other verifiable action or activities if developed and/or implemented pursuant to paragraph (1) above. The purchase of offsets to achieve the required reduction in $MTCO_2e$ or MWh shall occur as follows: a) Each project component shall purchase offsets for its first 2 years of operation; b) Purchase offsets at least annually thereafter, prior to becoming operational, beginning with the third year of operation, for the life of the proposed project component's operations or until the termination of any lease agreement between the City and the project proponent. The project proponent may purchase more than 1 year of operation emissions offsets, consistent with the	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		amount of $MTCO_2e$ or MWh reduction specified above for the corresponding project component. c) On or before the first year of operation of the respective project proponent and annually thereafter, the project proponent shall submit certificates for offsets purchased to achieve the required GHG emission reductions, including written verification by a qualified consultant approved by the City that the offsets meet the requirements for GHG emission offset credits set forth in paragraph A(3) above, to the City's Community Development Department. D. Adjustments to Required GHG Emissions Reductions. If the project proponent complies with paragraphs A(1) or A(2) above, in an amount that meets the total amount of $MTCO_2e$ or MWh reductions specified above in the reduction target, or complies with paragraph A(3) above and purchases the requisite offsets, or does a combination of paragraphs A(1), (2), and (3) to meet the reduction target, then nothing further shall be required under this mitigation measure. 1. Reduction of Emissions through Development of a Renewable Energy Project Requirement: Although none are identified at this time, the project proponent may be required by the City to develop a renewable energy project at any time during the life of the project (subject to future approvals and the priorities listed above) and may request a reduction of required offsets. If any reduction in offsets is requested by the project proponent because of the development of a renewable energy project(s), the project proponent shall submit a GHG Emission Reduction Report for the City's Community Development Department's review,	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		pursuant to the process specified above in paragraph C(1) above, and required offsets shall be determined by the City and reduced. 2. Reduction of Emissions through Verifiable Actions or Activities in the City of National City Requirement: Although none are identified at this time, the project proponent may be required by the City to take other verifiable actions or activities at any time during the life of the project (subject to future approvals and the priorities listed above) and may request a reduction of required offsets. If any reduction in offsets is requested by the project proponent because of the other verifiable actions or activities on tidelands, the project proponent shall submit a GHG Emission Reduction Report for the City's Community Development Department's review pursuant to the process specified above in paragraph C(1), and required offsets shall be determined by the City and reduced. 3. Reduction of Emissions through Purchase of Offsets: Subsequent to purchasing GHG emission offsets pursuant to paragraph C(2) above, the project proponent's future annual purchase of offsets to achieve the GHG emissions reduction specific in paragraph B above may be adjusted if the development is less than assumed here, which is the following: o City Program Plan includes a 150-room hotel along with 15,500 square feet of restaurant space and 12,000 square feet of retail space. The City or a City-retained consultant (at the project proponent cost) shall calculate, using the best available science, the amount of unused GHG reduction offsets, based on the actual development constructed and in operation. Any unused offsets shall be used for the next	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		year of operation of the project component, and the project proponent shall purchase offsets in the necessary amounts (required amount less any unused offsets) for the subject year. This procedure shall be repeated on an annual basis. In the event that newly discovered information shows that an offset, previously certified as compliant pursuant to paragraph C(3)(c), does not comply with the requirements of paragraph A(3), the project proponent shall purchase an equivalent amount of replacement offsets that comply with the requirements of paragraph A(3) within 30 days of receiving notice of the noncompliance. After verification of unused and available offsets, unused offsets may replace previously compliant offsets should those offsets subsequently be determined noncompliant with paragraph A(3). At the project proponent's written request to the City, the project proponent may waive the annual adjustment described above and purchase the required $MTCO_2e$ or MWh offsets on at least an annual basis.	
Impact-GHG-2: Inconsistency with District Climate Action Plan and Only Partial Consistency with Statewide Greenhouse Gas Reduction Plans, Policies, and Regulatory Programs (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component). The project would only partially comply with plans, policies, and regulatory programs outlined in applicable District CAP measures and applicable state reduction goals and plans, policies, or regulations (e.g., AB 32 Scoping Plan Measures for 2020, SB 32 Scoping Plan Measures for 2030, and other applicable statewide measures) for the purpose of reducing emissions of GHGs. Therefore, prior to the application of any mitigation, the impact related to consistency with relevant plans, policies, and programs would be significant.	PS	Implement **MM-GHG-1, MM-GHG-2, MM-GHG-4,** and **MM-GHG-5**, as described above.	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Impact-GHG-3: Inconsistency with City Climate Action Plan and Only Partial Consistency with Statewide Greenhouse Gas Reduction Plans, Policies, and Regulatory Programs (City Program – Development Component, a Portion of the Bayshore Bikeway Component, and a Portion of the GB Capital Component). The project would only partially comply with plans, policies, and regulatory programs outlined in applicable City CAP measures and applicable state reduction goals and plans, policies, or regulations (e.g., AB 32 Scoping Plan Measures for 2020, SB 32 Scoping Plan Measures for 2030, and other applicable statewide measures) for the purpose of reducing emissions of GHGs. Therefore, prior to the application of any mitigation, the impact related to consistency with relevant plans, policies, and programs would be significant.	PS	Implement **MM-GHG-1, MM-GHG-3, MM-GHG-4,** and **MM-GHG-5**, as described above.	LTS
Impact-C-GHG-1: **Inconsistency with the District and City Climate Action Plans' Numerical Targets.** Project construction and operations would not meet the numerical efficiency targets in 2025 or 2050. Therefore, prior to the application of any mitigation, the impact related to consistency with relevant plans, policies, and programs would be significant.	PS	Implement **MM-GHG-1** through **MM-GHG-7**, as described above.	SU
Impact-C-GHG-2: Inconsistency with the District's Climate Action Plan and Only Partial Consistency with Statewide Greenhouse Gas Reduction Plans, Policies, and Regulatory Programs. The project would only partially comply with plans, policies, and regulatory programs outlined in applicable District CAP measures and applicable state reduction goals and plans, policies, or regulations (Assembly Bill [AB] 32 Scoping Plan Measures for 2020, SB 32 Scoping Plan Measures for 2030, and other applicable statewide measures) for the purpose of reducing the emissions of	PS	Implement **MM-GHG-1, MM-GHG-2, MM-GHG-4**, **MM-GHG-5,** and **MM-GHG-6**, as described above.	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
GHGs. Therefore, prior to the application of any mitigation, the impact related to consistency with relevant plans, policies, and programs would be significant.			
Impact-C-GHG-3: Inconsistency with the City's Climate Action Plan and Only Partial Consistency with Statewide Greenhouse Gas Reduction Plans, Policies, and Regulatory Programs. The project would only partially comply with plans, policies, and regulatory programs outlined in applicable City CAP measures and applicable state reduction goals and plans, policies, or regulations (AB 32 Scoping Plan Measures for 2020, SB 32 Scoping Plan Measures for 2030, and other applicable statewide measures) for the purpose of reducing the emissions of GHGs. Therefore, prior to the application of any mitigation, the impact related to consistency with relevant plans, policies, and programs would be significant.	PS	Implement **MM-GHG-3** and **MM-GHG-7**, as described above.	LTS
4.7 Hazards and Hazardous Materials			
Impact-HAZ-1: Residual Soil Contamination (City Program – Development Component). The historic information reviewed for this analysis indicates the historic uses of the City Program – Development Component site have previously resulted in releases of hazardous materials, and residual hazardous materials may still be present. Therefore, contaminated soils may be encountered during construction activities on the City Program – Development Component site, which could potentially result in a release of hazardous materials and exacerbate the existing hazardous conditions; impacts would be significant.	PS	**MM-HAZ-1: Prepare and Implement a Soil Management Plan (City Program – Development Component).** Prior to the City's approval of the project grading plans and the commencement of any construction activities that would disturb the soil on the City Program – Development Component site, the project proponent shall retain a licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer with experience in contaminated site redevelopment and restoration to prepare and submit a Soil and Groundwater Management Plan to the City for review and approval. After the City's review and approval, the project proponent shall implement the Soil and Groundwater Management Plan, which shall include the following:	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		• A *Site Contamination Characterization Report* (Characterization Report) delineating the vertical and lateral extent and concentration of residual contamination from the site's past uses throughout the City Program – Development Component construction area. The Characterization Report shall include a compilation of data based on historical records review and from prior reports and investigations and, where data gaps are found, include new soil and groundwater sampling to characterize the existing vertical and lateral extent and concentration of residual contamination. The project proponent shall coordinate with the County of San Diego Department of Health if the Characterization Report identifies contamination. • A *Soil Testing and Profiling Plan* (Testing and Profiling Plan) for those materials that shall be disposed of during construction. Testing shall occur for all potential contaminants of concern, including CA Title 22 metals, PAHs, VOCs, pesticides, PCBs, TPH, PAHs, or any other potential contaminants, as specified within the Testing and Profiling Plan. The Testing and Profiling Plan shall document compliance with CA Title 22 for proper identification and segregation of hazardous and solid waste as needed for acceptance at a CA Title 22–compliant offsite disposal facility. All excavation activities shall be actively monitored by a Registered Environmental Assessor for the potential presence of contaminated soils and for compliance with the Testing and Profiling Plan. • A *Soil Disposal Plan* (Disposal Plan), which shall describe the process for excavation, stockpiling, dewatering, treating, and loading and hauling of soil from the site. This plan shall be prepared in accordance with the Testing and Profiling Plan (i.e.,	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		in accordance with CA Title 22 and DOT Title 40 CFR Part 263, California Code of Regulations Title 27), and current industry best practices for the prevention of cross contamination, spills, or releases. Measures shall include, but not be limited to, segregation into separate piles for waste profile analysis based on organic vapor, and visual and odor monitoring. • A *Site Worker Health and Safety Plan* (Safety Plan) to ensure compliance with 29 CFR Part 120, Hazardous Waste Operations and Emergency Response regulations for site workers at uncontrolled hazardous waste sites. The Safety Plan shall be based on the Characterization Report and the planned site construction activity to ensure that site workers potentially exposed to site contamination in soil are trained, equipped, and monitored during site activity. The training, equipment, and monitoring activities shall ensure that workers are not exposed to contaminants above personnel exposure limits established by Table Z, 29 CFR Part 1910.1000. The Safety Plan shall be signed by and implemented under the oversight of a California State Certified Industrial Hygienist. **MM-HAZ-2: Prepare and Implement a Monitoring and Reporting Program (City Program – Development Component).** Prior to commencement of construction of the City Program – Development Component, the project proponent shall prepare a Monitoring and Reporting Program and submit it to the City for review and approval. The Monitoring and Reporting Program shall be implemented during and upon completion of construction of the City Program – Development Component. The Monitoring and Reporting Program shall document implementation of the Soil Management Plan, including the Testing and Profiling Plan, Disposal Plan,	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		and Safety Plan, as required by **MM-HAZ-1**. The Monitoring and Reporting Program shall include a requirement that the project proponent submit monthly reports (starting with the first ground disturbance activities and ending at the completion of ground disturbance activities) to the City, signed and certified by the licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer, as applicable, documenting compliance with the provisions of these plans and the overall Soil and Groundwater Management Plan. **MM-HAZ-3: Prepare and Submit a Project Closeout Report (City Program – Development Component).** Within 30 days of completion of landside construction of the City Program – Development Component, the project proponent shall prepare a Project Closeout Report and submit it to the City for review and approval. The Project Closeout Report shall summarize all environmental activity at the site and document implementation of the Soil Management Plan, as required by **MM-HAZ-1**, and the Monitoring and Reporting Program, as required by **MM-HAZ-2.**	
Impact-HAZ-2: Residual Soil Contamination (Pasha Road Closures Component). The historic information reviewed for this analysis indicates the historic uses of the roadways associated with the Pasha Road Closures Component have previously resulted in releases of hazardous materials, and residual hazardous materials may still be present. Therefore, contaminated soils may be encountered during construction activities on the Pasha Road Closures Component site, which could potentially result in a release of hazardous materials and exacerbate the existing hazardous conditions; impacts would be significant.	PS	**MM-HAZ-4: Prepare and Implement a Soil Management Plan (Pasha Road Closures Component).** Prior to the District's and the City's approval of the project's grading plans and the commencement of any construction activities that would disturb the soil, the project proponent shall retain a licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer with experience in contaminated site redevelopment and restoration, to prepare and submit a Soil and Groundwater Management Plan to the District's Environmental Protection Department and the City for review and approval. After the District's and the City's review and approval, the project proponent shall	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		implement the Soil and Groundwater Management Plan, which shall include the following: • A *Site Contamination Characterization Report* (Characterization Report) delineating the vertical and lateral extent and concentration of residual contamination from the site's past uses throughout the Pasha Road Closure Component construction area. The Characterization Report shall include a compilation of data based on historical records review and from prior reports and investigations and, where data gaps are found, include new soil and groundwater sampling to characterize the existing vertical and lateral extent and concentration of residual contamination. The project proponent shall coordinate with the County of San Diego Department of Health if the Characterization Report identifies contamination. • A *Soil Testing and Profiling Plan* (Testing and Profiling Plan) for those materials that shall be disposed of during construction. Testing shall occur for all potential contaminants of concern, including CA Title 22 metals, PAHs, VOCs, pesticides, PCBs, TPH, PAHs, or any other potential contaminants, as specified within the Testing and Profiling Plan. The Testing and Profiling Plan shall document compliance with CA Title 22 for proper identification and segregation of hazardous and solid waste as needed for acceptance at a CA Title 22–compliant offsite disposal facility. All excavation activities shall be actively monitored by a Registered Environmental Assessor for the potential presence of contaminated soils and for compliance with the Testing and Profiling Plan. • A *Soil Disposal Plan* (Disposal Plan), which shall describe the process for excavation, stockpiling, dewatering, treating, and loading and hauling of soil	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		from the site. This plan shall be prepared in accordance with the Testing and Profiling Plan (i.e., in accordance with CA Title 22 and DOT Title 40 CFR Part 263, California Code of Regulations Title 27), and current industry best practices for the prevention of cross contamination, spills, or releases. Measures shall include, but not be limited to, segregation into separate piles for waste profile analysis based on organic vapor, and visual and odor monitoring. • A *Site Worker Health and Safety Plan* (Safety Plan) to ensure compliance with 29 CFR Part 120, Hazardous Waste Operations and Emergency Response regulations for site workers at uncontrolled hazardous waste sites. The Safety Plan shall be based on the Characterization Report and the planned site construction activity to ensure that site workers potentially exposed to site contamination in soil are trained, equipped, and monitored during site activity. The training, equipment, and monitoring activities shall ensure that workers are not exposed to contaminants above personnel exposure limits established by Table Z, 29 CFR Part 1910.1000. The Safety Plan shall be signed by and implemented under the oversight of a California State Certified Industrial Hygienist. **MM-HAZ-5: Prepare and Implement a Monitoring and Reporting Program (Pasha Road Closures Component).** Prior to commencement of construction of the Pasha Road Closures Component, the project proponent shall prepare a Monitoring and Reporting Program and submit it to the District's Environmental Protection Department and the City for review and approval. The Monitoring and Reporting Program shall be implemented during and upon completion of construction of the Pasha Road Closures Component. The	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		Monitoring and Reporting Program shall document implementation of the Soil Management Plan, including the Testing and Profiling Plan, Disposal Plan, and Safety Plan, as required by **MM-HAZ-1**. The Monitoring and Reporting Program shall include a requirement that the project proponent submit monthly reports (starting with the first ground disturbance activities and ending at the completion of ground disturbance activities) to the District's Development Services Department and the City, signed and certified by the licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer, as applicable, documenting compliance with the provisions of these plans and the overall Soil and Groundwater Management Plan. **MM-HAZ-6: Prepare and Submit a Project Closeout Report (Pasha Road Closures Component).** Within 30 days of completion of landside construction of the Pasha Road Closures Component, the project proponent shall prepare a Project Closeout Report and submit it to the District's Environmental Protection Department and the City for review and approval. The Project Closeout Report shall summarize all environmental activity at the site and document implementation of the Soil Management Plan, as required by **MM-HAZ-4**, and the Monitoring and Reporting Program, as required by **MM-HAZ-5.**	
Impact-HAZ-3: Conflict with Conditions of Regulatory Closure (City Program – Development Component). VAP Cases #H23772-005, #H36620-001, and #H23772-004 were closed by the DEH contingent upon the future commercial and/or industrial use of the properties. The City Program – Development Component would include hotel uses on these properties, which could conflict with the requirements of the DEH closure. This could exacerbate the existing hazardous conditions; impacts would be significant.	PS	**MM-HAZ-7**: **Coordinate with the DEH (City Program – Development Component).** Prior to ground disturbing activities on the City Program – Development Component site, the project proponent for the City Program – Development Component shall coordinate with the DEH to reopen VAP Cases #H23772-005, #H36620-001, and #H23772-004 to determine if the existing conditions would be below acceptable cleanup thresholds for hotel use. If the DEH determines the onsite conditions do not meet thresholds for future hotel uses, the project	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		proponent must comply with the requirements of the DEH to achieve remediation standards.	
Impact-HAZ-4: Inadequate Emergency Access from Temporary Road Closures During Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, City Program – Development Component). Roadway lanes and/or whole roadways may be closed during construction, due to equipment, material delivery, or work, within the road right-of-way. Blocked roadways could prevent the access of emergency vehicles to the project site or the vicinity.	PS	**MM-TRA-3: Implement Traffic Control Measures During Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, City Program – Development Component).** See below, and Section 4.12, *Transportation, Circulation, and Parking.* **MM-HAZ-8: Maintain Emergency Access Road During Construction (Pasha Road Closures Component).** A temporary emergency access road shall be maintained by the project proponent at all times during construction of the Pasha Road Closures Component. The location and components, as defined per the California Fire Code, of the temporary emergency access road shall be submitted to the City Fire Marshal for review and approval prior to closure of the roadway(s) to through-traffic. Written verification of inclusion of the temporary emergency vehicle access shall be provided to the District's Director of Planning prior to closure of the roadway(s) to through-traffic. Said written verification can be provided via a copy of the plans that have been stamped/approved by the City Fire Marshal, or the Fire Marshal's designee, or verification can be provided with a copy of the Fire Permit. **MM-HAZ-10: Coordinate with the City Fire Marshal (City Program – Development Component).** If the scenario of the City Program – Development Component that proposes closing Bay Marina Drive (west of Marina Way) to through-traffic is selected for implementation, prior to closure of Bay Marina Drive to through-traffic, the project proponent for this closure shall prepare and submit plans to the City Fire Marshal for review and approval that demonstrate compliance with applicable state and local fire code regulations related to emergency	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		access, both during construction and after implementation. Regardless of the means of accomplishing the preclusion of through-traffic (e.g., collapsible bollards, rolled curbs), an emergency access road shall be provided for emergency vehicles. Prior to closure of Bay Marina Drive (west of Marina Way) to through-traffic, the above-described emergency vehicle access shall be field-verified by the City Fire Marshal, or the Fire Marshal's designee. Written verification of inclusion of the above-described emergency vehicle access shall be provided to the City's Community Development Director prior to closure of Bay Marina Drive (west of Marina Way) to through-traffic.	
Impact-HAZ-5: Inadequate Emergency Access from the Closure of Tidelands Avenue During Operation (Pasha Road Closures Component). Closure of Tidelands Avenue between Bay Marina Drive on the north and 32nd Street on the south and West 28th Street between Tidelands Avenue and Quay Avenue may result in inadequate emergency access during operation.	PS	**MM-HAZ-9: Coordinate with the City Fire Marshal (Pasha Road Closures Component).** Prior to closure of the Pasha Road Closures Component to through-traffic, the project proponent for said project component shall prepare and submit plans to the City Fire Marshal for review and approval that demonstrate compliance with applicable state and local fire code regulations related to secondary access, emergency access, and maximum dead-end road length. At a minimum, the plans shall demonstrate that the project will include the following items related to emergency vehicle access: • An **emergency access road**, on the existing alignment of Tidelands Avenue between Bay Marina Drive and the 32nd Street, that has an unobstructed minimum width of 20 feet (or 26 feet when a fire hydrant is located on the emergency access road), exclusive of shoulders or rolled curbs. The emergency access road shall be paved using an all-weather surface and shall support the imposed loads (75,000 pounds) of a fire apparatus. The emergency access road shall include official approved signs or other approved notices or markings that include the words "NO PARKING – FIRE LANE." At all times, the	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		emergency access road shall not be obstructed in any manner, including the parking of vehicles. • Any **entrance/exit gates** to/from the Pasha Road Closures Component shall be equipped with Knox Key Switches and Emergency Strobes to provide emergency vehicle access, including ingress and egress. A lock box (Knox Key Switch for fire and police) shall be required in conjunction with a detector/strobe switch to allow emergency vehicles to flash a vehicle-mounted strobe light towards the detector/strobe switch, which in turn overrides the system and opens the gate. The lock box and detector/strobe switch shall be placed at the front of each gate (the side of the gate that is adjacent to a public street). Any electric gate opener shall be listed in accordance with UL 325. Gates utilizing emergency strobe operation shall be designed, constructed, and installed to comply with requirements of ASTM F2200, and shall be maintained operational at all times, including but not limited to, in the event of an electrical outage. Any entrance/exist gates to/from the Pasha Road Closures Component shall maintain an unobstructed vertical clearance of a minimum of 13 feet, 6 inches. • **Fire hydrants** shall be located throughout the Pasha Road Closures Component site and shall be spaced no less than 400 feet apart. Fire hydrants shall be located within 400 feet of all locations that are roadway accessible (measurement starts from the nearest existing fire hydrant to the Pasha Road Closures Component site). Where a fire hydrant is located on an emergency access road, the minimum road width shall be 26 feet. All turns available for fire access and travel shall maintain a minimum radius of 28 feet.	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		Prior to utilization of the Pasha Road Closures Component for marine-related operations, the above-described emergency vehicle access shall be field-verified by the City Fire Marshal, or the Fire Marshal's designee. Written verification of inclusion of the above-described emergency vehicle access shall be provided to the District's Director of Planning prior to Pasha's utilization of the Pasha Road Closures Component for marine-related operations. Said written verification can be provided via a copy of the plans that have been stamped/approved by the City Fire Marshal, or the Fire Marshal's designee, or verification can be provided with a copy of the Fire Permit.	
Impact-HAZ-6: Inadequate Emergency Access from the Closure of Bay Marina Drive to Thru-Traffic (City Program – Development Component). Closure of Bay Marina (west of Marina Way) to through-traffic may result in inadequate emergency access during construction and operation.	PS	Implement **MM-HAZ-10**, as described above.	LTS
Impact-HAZ-7: Inadequate Emergency Access from Marina Way Realignment (Balanced Plan or GB Capital Component). The implementation of traffic calming devices along Marina Way may result in inadequate emergency access during operation.	PS	**MM-HAZ-11: Manage Marina Way Realignment Conditions (Balanced Plan or GB Capital Component).** The Marina Way Realignment proposed as part of the Balanced Plan (or GB Capital Component) shall not include traffic calming devices (e.g., speed humps), unless prior-written approval is obtained from the City Fire Marshal.	LTS
4.8 Hydrology and Water Quality			
Implementation of the proposed project would not result in any potentially significant impacts related to hydrology and water quality.			
4.9 Land Use and Planning			
Impact-LU-1: Permanent Inundation in the Near Term (Bayshore Bikeway Component). Currently, the portion of Route 1 of the Bayshore Bikeway Component along the marsh would be inundated if it is	PS	**MM-LU-1: Design Bayshore Bikeway to Account for Sea-Level Rise in the Near Term (Route 1 Option of the Bayshore Bikeway Component).** If Route 1 of the Bayshore Bikeway is selected, the coastal portions of the bikeway shall be elevated at least 1.4 feet above the	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
not sufficiently elevated as part of the design and construction of that route.		current design flood elevation to account for SLR through 2050. Prior to issuance of building permits for Route 1, if that route option is selected, the project proponent shall submit plans demonstrating the raised elevation to the City's Community Development Department for review and approval and, if approved, implement the plans.	
Impact-LU-2: **Temporary Inundation for 2030 and 2050 (Balanced Plan, GB Capital Component).** Parts of Pepper Park are anticipated to be temporarily inundated during a 100-year storm surge event in 2030, with greater portions of the park and the park expansion site experiencing temporary inundation through the end of the century (at or after 2050). The jetty area of the GB Capital Component may experience temporary inundation as soon as 2050 based on the high SLR projections.	PS	**MM-LU-2: Design the Pepper Park Expansion to Account for Sea-Level Rise through 2050 (Balanced Plan).** The project proponent for the Pepper Park expansion shall design the park to accommodate water during future flooding events. Methods to accommodate water during future flooding events include, but are not limited to: • Elevating the waterside promenades • Regrading coastal edges and/or inland portions of the park as appropriate • Creating living shorelines • Ensuring that any new vegetation is salt tolerant • Developing an operational plan to close the parking lot and move parked vehicles prior to storm events • Including pervious surfaces such as turf, sand, and pervious concrete Moreover, the public access to Pepper Park shall be restricted during flood events. If any structures are constructed in Pepper Park or Granger Hall is relocated to Pepper Park, prior to construction or relocation, respectively, the project proponent shall conduct an engineering-level, site-specific assessment of the projected SLR at the site through 2050. If the assessment projects the jetty to be temporarily inundated by 2050, the development shall include the following: • Place any mechanical and electrical equipment at least 2 feet above the design flood elevation to reduce risk of flood damage. If equipment must be	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		placed in lower areas, elevate base or ensure assets are composed of flood damage–resistant materials. • Design water supply, sanitary sewage, and stormwater systems to minimize or eliminate infiltration of flood waters into systems and vice versa. • Ensure that all building exterior walls are composed of materials that have an impermeable and waterproof membrane. • Ensure that building foundations, if any, are capable of supporting future flood walls or temporary flood barriers. • Design building openings (e.g., doors, windows, utility penetrations) to be capable of future retrofitting to make them watertight and resistant to flood loads. Additionally, the project proponent shall create an early warning system to monitor the risk of potential flooding of any structure. An early warning system should consist of protocols for obtaining information on local weather alerts and established levels at which additional action (e.g., sandbagging) will be taken. Also, the project proponent shall establish emergency evacuation procedures for people to relocate to higher ground on short notice. Before a large storm, deployment of sandbags or inflatable barriers shall occur if deemed necessary. **MM-LU-3: Conduct Engineering-Level, Site-Specific Assessment of Sea-Level Rise through 2050 (GB Capital Component).** The project proponent for the GB Capital Component shall conduct an engineering-level, site-specific assessment of the projected SLR at the site through 2050. If the assessment projects the jetty to be temporarily inundated by 2050, the development on the jetty shall include the following:	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		Smart Design Decisions – to be incorporated into building design and part of construction: • Place any mechanical and electrical equipment at least 2 feet above the design flood elevation to reduce risk of flood damage. If equipment must be placed in lower areas, elevate base or ensure assets are composed of flood damage–resistant materials. • Design water supply, sanitary sewage, and stormwater systems to minimize or eliminate infiltration of flood waters into systems and vice versa. • Ensure that all building exterior walls are composed of materials that have an impermeable and waterproof membrane. *Future Adaptation Strategies – to be incorporated into building design and part of construction:* • Ensure that building foundations, if any, are capable of supporting future flood walls or temporary flood barriers. • Design building openings (e.g., doors, windows, utility penetrations) to be capable of future retrofitting to make them watertight and resistant to flood loads. • Design key structural elements of the jetty to allow future increases in the elevation of the jetty. *Operational Strategies – to be implemented during operation:* • Establish an early warning system to monitor the risk of potential flooding. An early warning system should consist of: o Protocols for obtaining information on local weather alerts and established levels at which additional action (e.g., sandbagging) will be taken o Protocols for monitoring water levels at nearby storm gauges prior to the storm arrival, and	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		regular checking of the water levels along the jetty as the storm progresses • Establish emergency evacuation procedures for people to relocate to higher ground on short notice. • Obtain backup power generators for occupiable development on the jetty and portable pumps and ensure there is sufficient fuel to operate these. Establish protocols for operating said generators and pumps during storm events or other such events. • Before a large storm, deploy sandbags or inflatable barriers. • Before a storm, test emergency power sources and pumps and ensure there is sufficient fuel to run these, and inspect building exteriors to ensure there are no penetrations that lack flood proofing. • Restrict public access during storms or flooding events. Prior to issuance of the first building permit for any development on the jetty, the assessment and project plans (revised pursuant to the findings of the assessment, if the assessment projects inundation by 2050) shall be submitted to the District's Development Services Department and the City's building permit department for review and approval.	
Impact-LU-3: Temporary and/or Permanent Inundation for 2100 (Balanced Plan, GB Capital Component, Pasha Road Closures Component, Bayshore Bikeway Component). The Bayshore Bikeway Component, as well as the Pasha Road Closures Component, the Pepper Park expansion and FPR of the Balanced Plan, and the jetty of the GB Capital Component, are projected to be temporarily or permanently inundated, depending on the location (e.g., the Bayshore Bikeway Component is projected to be permanently inundated in the northern extents of	PS	**MM-LU-4: Use Updated Modeling and Monitoring for Adaptive Management for 2100 Scenario (Balanced Plan, GB Capital Component, Pasha Road Closures Component, portion of Bayshore Bikeway Component).** For areas of the Balanced Plan (Pepper Park and the FPR), the GB Capital Component, the Pasha Road Closures Component, and the portions of the Bayshore Bikeway Component (within the District's jurisdiction) that are projected to be inundated in 2100, the District shall conduct ongoing monitoring of these project component sites every 5 to 10 years. If, through	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
all three route options, and temporarily inundated in additional areas), by 2100.		monitoring, the observed SLR conditions appear to be consistent with the 2100 projections identified in this EIR, a site-specific assessment shall be conducted to identify future SLR projections using the best science available at the time and identify appropriate adaptation strategies to ensure that these areas are resilient to coastal flooding and inundation from SLR. Such strategies may include a neighborhood-level effort, raising of grades, additional shoreline protection, removal or movement of assets, and conversion of impervious surfaces to pervious surfaces. **MM-LU-5: Use Updated Modeling and Monitoring for Adaptive Management for 2100 Scenario (most of Bayshore Bikeway Component).** For the areas of the Bayshore Bikeway Component that are within the City's jurisdiction, the City shall conduct ongoing monitoring of these areas every 5 to 10 years. If, through monitoring, the observed SLR conditions appear to be consistent with the 2100 projections identified in this EIR, a site-specific assessment shall be conducted to identify future SLR projections using the best science available at the time and identify appropriate adaptation strategies to ensure that these areas are resilient to coastal flooding and inundation from SLR. Such strategies may include a neighborhood-level effort, raising of grades, additional shoreline protection, or removal or movement of assets.	
4.10 Noise and Vibration			
Impact-NOI-1: Exceedance of the City's Noise Ordinance During Project Construction (Balanced Plan, Bayshore Bikeway Component, City Program – Development Component, GB Capital Component, Pasha Road Closures Component). Noise due to project construction would exceed 70 dBA L_{max} between 7:00 a.m. and 7:00 p.m. at noise-sensitive receptors. These impacts would occur during	PS	**MM-NOI-1: Prohibit Exterior Construction Activities Outside of the Permitted Construction Hours (Balanced Plan, Bayshore Bikeway Component, City Program – Development Component, GB Capital Component, Pasha Road Closures Component).** For the Balanced Plan, Bayshore Bikeway Component, City Program – Development Component, GB Capital Component, and Pasha Road Closures Component, the	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
construction of the Bayshore Bikeway at residential receptors within 520 feet of the selected bikeway alignment; at residential receptors north of the site (on Cleveland Avenue) and the National City Adult School to the east (across I-5) during pile driving at the City Program – Development Component; and at the proposed Balanced Plan Pepper Park due to construction at the GB Capital Component and the Pasha Road Closures Component.		project proponent for that respective project component shall require their contractor(s) not to conduct exterior construction activities outside the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday. Material or equipment deliveries and collections shall also be prohibited outside of these hours. Except for construction personnel specifically working on interior construction tasks within a completed building shell, construction personnel shall not be permitted on the job site outside of the permitted hours. **MM-NOI-2: Avoid or Reduce Construction Noise from Pile Driving (City Program – Development Component, GB Capital Component).** During all pile driving at the City Program – Development Component and GB Capital Component, the project proponent shall require its construction contractor to implement one of the following methods to reduce maximum pile-driving noise levels at the affected noise-sensitive receptors (residences on Cleveland Avenue, the National City Adult School, and Pepper Park) to 70 dBA L_{max} or less: • Avoid impact pile driving by using quieter alternative installation methods, such as press-in piles or drilled piles (e.g., cast-in-drilled-hole, poured-in-place piles). • Use an acoustical shroud around impact pile driving. The shroud shall be constructed of materials that provide a minimum sound transmission class (STC) of 28 (examples include sound-rated acoustical blankets). **MM-NOI-3: Avoid or Reduce Construction Noise from Other (Non-Pile-Driving) Construction Activities (Bayshore Bikeway Component, GB Capital Component, Pasha Road Closures Component).** During all non-pile-driving construction activity at the Bayshore Bikeway Component, GB Capital Component, and the Pasha Road Closures Component, the project proponent shall require their construction contractor(s)	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		to implement one of the following methods to reduce maximum noise levels at the affected noise-sensitive receptors (residences on Cleveland Avenue and McKinley Avenue, and Pepper Park) to 70 dBA L_{max} or less: • Avoid operating high impact demolition equipment (hydraulic breakers, jackhammers, concrete saws) within 520 feet of the any noise-sensitive receptors and avoid operating all other mechanized construction equipment within 280 feet of the affected noise-sensitive receptors. • Where the above-specified distances cannot be maintained, install temporary noise barrier(s) between construction activities and the noise-sensitive receptor(s). Barriers may be constructed around the site perimeter or, when construction activities are restricted to a smaller portion of the site, around that smaller portion of the site, or around any noisy stationary construction equipment such as generators or dewatering pumps. All such barriers must be at least 8 feet high and of sufficient height to break the line-of-sight between the construction equipment and the ground floor of any noise-sensitive receptor. These barriers shall be constructed in one of the following ways that the project proponent establishes, in writing and to the satisfaction of the District, shall achieve a minimum sound transmission class (STC) rating of 28: ○ From acoustical blankets hung over or from a supporting frame. The blankets should be firmly secured to the framework. The blankets should be overlapped by at least 4 inches at seams and taped and/or closed with hook-and-loop fasteners (i.e., Velcro®) so that no gaps exist. The blankets shall be draped to the ground to eliminate any gaps at the base of the barrier.	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		○ From commercially available acoustical panels lined with sound-absorbing material (the sound-absorptive faces of the panels should face the construction equipment). ○ From common construction materials such as plywood.	
Impact-NOI-2: Exceedance of the City's General Plan Noise Exposure Standards Due to Traffic Noise at Onsite Visitor Accommodations (City Program – Development Component). Traffic noise exposure could exceed 65 dB CNEL at the proposed City Program – Development Component proposed hotel site due to traffic on Cleveland Avenue and Bay Marina Drive.	PS	**MM-NOI-4: Design and Construct the Proposed Hotel at the City Program – Development Component Site to Achieve an Interior Noise Level of 45 dB CNEL or Less at Noise-Sensitive Occupied Spaces (City Program – Development Component).** During the architectural and engineering design, prior to the issuance of any building permits for the hotel, the project proponent for the City Program – Development Component shall retain an acoustical consultant to ensure that the building design provides adequate noise insulation to achieve the City's interior noise standard of 45 dB CNEL, as specified in the National City General Plan Noise Element, at occupied spaces. If necessary, the consultant shall recommend design features such as, but not limited to, fresh-air supply systems (to allow windows to remain closed), sound-rated windows, or other façade upgrades. The project proponent shall submit a copy of the acoustical consultant's report, along with evidence that all recommended design features have been incorporated into the project design, to the City's Community Development Department for review and approval prior to hotel construction.	LTS
Impact-NOI-3: Exceedance of the City's General Plan Noise Exposure Standards Due to Rail Noise at Proposed Onsite Visitor Accommodations (GB Capital Component, Pasha Rail Improvement Component). Rail noise exposure could exceed 65 dB CNEL at the proposed hotels and RV resort at the GB Capital Component site due to operations at the	PS	**MM-NOI-5: Reduce Rail Noise Levels at the Proposed GB Capital RV Sites to 65 dB CNEL or Less (Pasha Rail Component, GB Capital Component).** The project proponent for the GB Capital Component shall design its dry boat storage so that it is enclosed and made from solid material (versus fabric, chain link fencing or similar pervious/open materials) and shall submit a noise study	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
proposed Pasha Rail Improvement Component and existing NCMT rail operations.		conducted by an acoustical consultant that analyzes the noise from the Pasha Rail Improvement Component with the enclosed dry boat storage as a buffer, demonstrating the noise levels at the proposed RV park location. The noise study shall be submitted to the District's Development Services Department for its review 3 months after issuance of a Coastal Development Permit (CDP) for any phase of the GB Capital Component and prior to the construction of the RV park. The project proponent shall construct the dry boat storage as designed. If the noise study shows that the rail noise exposure at the proposed RV sites is at or below 65 dB CNEL, then no additional steps as specified in this mitigation measure shall be required. If the noise study shows that noise levels are above 65 dB CNEL at the proposed RV sites, then prior to occupancy of the GB Capital RV Resort or operation of the Pasha Rail Improvement Component, whichever occurs last, a sound barrier shall be constructed to reduce the rail noise exposure at the proposed RV sites to 65 dB CNEL or less. The noise barrier shall be the equal (50/50) shared financial responsibility of the project proponents for the Pasha Rail Improvement Component and the GB Capital Component. In the event that both components are not constructed at the same time, the project proponent (Payee) of the component last constructed shall construct and pay for the entire specified noise control and the other project proponent (Reimbursee) shall reimburse the Payee 50% of the actual cost of designing, permitting, and constructing the noise control unless another payment arrangement is agreed upon between the project proponents and approved by the District. Such reimbursement shall be a condition of the CDPs for the Pasha Rail Improvement Component and the RV resort associated with the GB Capital Component. The noise barrier shall be constructed between the south side of	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		the Pasha Rail Improvement Component and the GB Capital RV Resort. The barrier shall fully block the line-of-sight between the RV sites and a standard freight locomotive on the Pasha Rail Improvement Component site, and is anticipated to be a minimum barrier height of 16 feet relative to the finished track elevation. The barrier shall be a continuous structure without gaps or openings and shall extend from the north end of the Pasha Rail Improvement Component to Tidelands Avenue. The barrier shall be constructed of a solid material and, if necessary to meet the noise requirement, the density of 4 pounds per square foot (e.g., concrete block or concrete panels). **MM-NOI-6: Design and Construct the Hotels at the GB Capital Component to Achieve an Interior Noise Level of 45 dB CNEL or Less at Noise-Sensitive Occupied Spaces (GB Capital Component).** During the architectural and engineering design, prior to the issuance of any building permits for the hotels, the project proponent for the GB Capital Component shall retain an acoustical consultant to ensure that the project design provides adequate noise insulation to achieve the City's interior noise standard of 45 dB CNEL, as specified in the National City General Plan Noise Element, at occupied spaces. If necessary, the consultant shall recommend design features such as, but not limited to, fresh-air supply systems (to allow windows to remain closed), sound-rated windows, or other façade upgrades. The project proponent shall submit a copy of the acoustical consultant's report, along with evidence that all recommended design features have been incorporated into the project design, to the District's Development Services Department for review and approval prior to construction of any hotel.	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Impact-NOI-4: Potential Exceedance of the City's Municipal Code Noise Standards at Existing Offsite Sensitive Receptors Due to Onsite Operations (City Program – Development Component). Mechanical equipment noise levels from the City Program – Development Component proposed hotel could exceed the nighttime limits of 45 dBA L_{eq} at nearby homes to the north and 60 dBA L_{eq} at the Best Western Hotel to the south. Mechanical equipment noise would also cause a nighttime ambient noise increase of 5 dB at the Best Western Hotel.	PS	**MM-NOI-7: Design and Install All Onsite Mechanical Equipment at the City Program – Development Component Site to Comply with the City's Noise Ordinance (City Program – Development Component).** During the architectural and engineering design phase, prior to the issuance of any building permits for the City Program – Development Component, the project proponent for the City Program – Development Component shall retain an acoustical consultant to evaluate the design and provide recommendations, as necessary, to ensure that all aspects of this project component, including mechanical equipment and other onsite stationary sources (e.g., trash compactors, loading docks), are designed and will be installed to comply with the City's Noise Ordinance (Municipal Code Chapter 12.06). Such recommendations may include, but are not limited to, changes in equipment locations; sound power limits or specifications; rooftop parapet walls; acoustic absorption materials, louvers, screens, or enclosures; or intake and exhaust silencers. The project proponent shall submit a copy of the acoustical consultant's report, along with evidence that all recommended design features have been incorporated into the project design, to the City's Community Development Department for review and approval prior to hotel construction.	LTS
Impact-NOI-5: Potential Exceedance of the City's Municipal Code Noise Standards at Onsite Sensitive Receptors Due to Onsite Operations (GB Capital Component, Balanced Plan). Noise levels from the dry boat storage facility could exceed both the daytime and nighttime limits of 60 and 65 dBA L_{eq}, respectively, at the Phase 1 and Phase 2 RV resort at the GB Capital Component. Noise levels from events at the proposed Balanced Plan Pepper Park amphitheater could exceed nighttime limits of 60 dBA L_{eq} at GB Capital Component	PS	**MM-NOI-8: Design and Operate the Proposed Dry Boat Storage Facility to Comply with the City's Noise Ordinance at the Adjacent Proposed RV Resort (GB Capital Component).** During the architectural and engineering design phase for the dry boat storage facility, prior to the issuance of any building permits for such, the project proponent for the GB Capital Component shall retain an acoustical consultant to evaluate the design and provide recommendations, as necessary, to ensure that operation of the dry boat storage facility will comply with	SU

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
RV Resort Phase 1, Hotel #1, Hotel #2, and modular cabins. Noise from the amphitheater could also exceed the daytime limits of 65 dBA L_{eq} at the GB Capital Component RV Resort Phase 1, Hotel #1, and modular cabins.		the City's Noise Ordinance (Municipal Code Chapter 12.06.020) at the adjacent RV sites during the sensitive evening and nighttime hours of 7:00 p.m. to 7:00 a.m. (i.e., 65 dBA L_{eq} between 7 p.m. and 10 p.m., and 60 dBA L_{eq} between 10 p.m. and 7 a.m.). Noise control techniques may include, but are not limited to, restricting hours of operation to daytime hours (7:00 a.m. to 7:00 p.m.), selecting quieter equipment (when commercially available), or installing additional noise barriers to screen the facility from the RV resort. The project proponent shall submit a copy of the acoustical consultant's report, along with evidence that all design features have been incorporated into the project design (to ensure that operation of the dry boat storage facility would comply with the City Noise Ordinance at the adjacent RV sites during the sensitive evening and nighttime hours), to the District's Development Services Department for review and approval prior to commencement of construction of the dry boat storage facility. The project proponent shall implement the noise control techniques. **MM-NOI-9: Regulate Organized Events at Pepper Park, Including Use of the Proposed Amphitheater (Balanced Plan).** Organized events at Pepper Park shall be properly regulated for noise control. Per Section 8.02 of the District's Port Code, any event with over 25 attendees shall obtain a permit from the District. As further stipulated by Section 8.02 of the Port Code, each "permit shall be subject to the requirements regarding noise…as contained in the Municipal Code of the particular City in which the park is located." Therefore, any event for which noise generating activities will occur at the amphitheater will be subject to the City's Noise Ordinance. Although the City's Noise Ordinance indicates that daytime and nighttime noise standards would be 65 and 60 dBA L_{eq}(h), respectively, at the GB Capital	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		Component visitor accommodations (RV resort and hotels), the City's Noise Ordinance also includes exceptions for these noise standards; the exceptions are on a case-by-case basis and include temporary noise exceedances for organized events (e.g., parades, concerts). Further, as part of the District's permitting process for organized events that are proposed to have amplified sounds (e.g., concerts), the District shall coordinate with the City, and if the City requires a maximum decibel level limit or hours in which all noise needs to cease, that information shall be added to the District permit for that organized event. In addition, the District shall coordinate notification to adjacent tenants of upcoming organized large events, and the permittee of the organized event shall coordinate with the same tenants within 2 weeks of the organized event.	
Impact-NOI-6: Exceedance of Caltrans Guideline Criteria for Potential Building Damage During Project Construction (GB Capital Component). Vibration levels due to pile driving could exceed 0.5 in/sec at the closest structure (Waterfront Grill at the Pier 32 Marina) during construction of Hotel #3 at the GB Capital Component. This impact would occur if pile driving is conducted within 32 feet of the existing structure.	PS	**MM-NOI-10: Avoid or Reduce Groundborne Vibration from Pile Driving (GB Capital Component).** Where feasible, the project proponent for the GB Capital Component shall require its construction contractor(s) to avoid pile driving within a 32-foot buffer zone of existing buildings at the Pier 32 Marina. If piling cannot be avoided within this distance, the following shall be implemented: • Alternative installation methods shall be used, such as press-in piles or drilled piles (e.g., cast-in-drilled-hole, poured-in-place piles). • The following steps shall be taken to protect buildings within 32 feet of pile-driving locations: ○ The project proponent/contractor shall retain a qualified structural or geotechnical engineer to conduct preconstruction surveys of neighboring structures (including photographing and/or videotaping) to document existing building conditions for future comparison if any vibration-	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		related damage is suspected or results from construction-related activities; and ○ Based on review of the specific buildings involved, the structural/geotechnical engineer may provide updated vibration thresholds and buffer distances for potentially affected buildings; and ○ Monitoring shall be conducted during construction to check for vibration-related damage during pile driving; such monitoring shall include vibration measurements obtained inside or outside of the buildings or other tests and observations deemed necessary; and ○ The person(s) conducting the monitoring shall have the authority to issue a stop work order to the pile-driving contractor if excessive vibration levels are measured or other observations occur that indicate potential building damage may occur; in the event of such an occurrence, the monitor shall notify the project proponent (GB Capital) and the District; and ○ If any damage to existing buildings is determined to occur as a result of pile driving at the GB Capital Component, the project proponent shall be financially responsible for the necessary repairs, structural or cosmetic, to return the damaged building to its pre-existing state.	
Impact-NOI-7: Exceedance of Caltrans Guideline Criteria for Potential Human Annoyance During Project Construction (Bayshore Bikeway Component). Vibration levels due to vibratory rollers (compactors) or heavy earthmoving equipment could exceed 0.04 in/sec at the closest residential structures during construction of the proposed Bayshore Bikeway. This impact would occur if hydraulic breakers are used within approximately 130 feet of	PS	**MM-NOI-11: Avoid or Reduce Groundborne Vibration from Bikeway Construction (Bayshore Bikeway Component).** During all construction activity at the Bayshore Bikeway Component, the project proponent shall require its construction contractor(s) to observe the following buffer zones to reduce groundborne vibration at nearby at nearby residences to 0.04 in/sec or less: • Avoid the use of hydraulic breakers within 130 feet of residential buildings.	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
residences, vibratory rollers are used within approximately 115 feet of residences, or heavy earthmoving equipment is used within approximately 55 feet of residences.		• Avoid vibratory compaction within 115 feet of residential buildings. • Avoid the use of heavy earthmoving equipment within 55 feet of residential buildings. If the listed buffer distances cannot be maintained, impacts can be reduced to less than significant by using alternative equipment that avoids or reduces high vibration levels at the source. Jackhammers (manually held and operated, not mounted to any other construction equipment) may be used in place of other breakers, non-vibratory rollers may be used in place of vibratory roller, and smaller earthmovers (Bobcat, skid steer, etc.) may be used instead of full size heavy earthmoving equipment.	
Impact-C-NOI-1: Exceedance of the City's General Plan Noise Exposure Standards Due to Traffic Noise at Onsite Visitor Accommodations (City Program – Development Component). Traffic noise exposure could exceed 65 dB CNEL at the proposed hotel at the City Program – Development Component site due to traffic on Cleveland Avenue and Bay Marina Drive.	PS	Implement **MM-NOI-4**, as described above.	LTS
Impact-C-NOI-2: Exceedance of the City's General Plan Noise Exposure Standards Due to Rail Noise at Onsite Visitor Accommodations (GB Capital Component, Pasha Rail Improvement Component). Rail noise exposure could exceed 65 dB CNEL at the proposed hotels and RV resort at the GB Capital Component site due to operations at the proposed Pasha Rail Improvement Component and existing NCMT rail operations.	PS	Implement **MM-NOI-5** and **MM-NOI-6**, as described above.	LTS
4.11 Population and Employment			
Implementation of the proposed project would not result in any potentially significant impacts related to population and employment.			

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
4.12 Public Services and Recreation			
Implementation of the proposed project would not result in any potentially significant impacts related to public services and recreation.			
4.13 Transportation, Circulation, and Parking			
Impact-TRA-1: **Generate Vehicle Miles Traveled in Exceedance of Employment-Based Thresholds During Project Operations (Phase 1 and Phase 2 of GB Capital Component, City Program – Development Component).** Employment associated with operation of the proposed project would not reduce VMT to 15% below the 2050 regional average. Therefore, employment uses associated with the proposed project (GB Capital Component, City Program – Development Component) would have a significant VMT impact.	PS	**MM-TRA-1**: **Implement TDM and VMT Reduction Measures (GB Capital Component, City Program – Development Component).** To reduce VMT generated by employee trips, the project proponent (GB Capital and City) shall implement the following TDM and VMT reduction measure from the SANDAG Mobility Management Toolbox, using the VMT Reduction Calculator Tool (SANDAG 2019b), starting the first day of project operations for the GB Capital Component and City Program – Development Component. • Mandatory Employer Commute Program – The employer for the GB Capital Component and City Program – Development Component shall offer and pay for an employer commute-trip reduction program, which may include a carpool program, transit subsidy passes, or a vanpool program. Implementing these measures could result in a 2.6% reduction in the project's employee VMT.	SU
Impact-TRA-2: Induced Travel and Increased Vehicle Miles Traveled from the Closure of Bay Marina Drive to Through Traffic at Marina Way (City Program – Development Component). The proposed closure of Bay Marina Drive (to through traffic at Marina Way) would result in changes to the transportation network and a redistribution of traffic in the study area. The closure of Bay Marina Drive (to through traffic at Marina Way) would require trips to and from the terminal to exit the I-5/Civic Center Drive interchange instead of the I-5/Bay Marina Drive interchange. This would increase the study area's total VMT by 1.7 miles. As such, the VMT impacts associated	PS	**MM-TRA-2**: **Implement TDM Plan (City Program – Development Component [Closure of Bay Marina Drive]).** Prior to the closure of Bay Marina Drive, the City shall create a TDM plan and submit it to the City's Community Development Department for review and approval and then implement the TDM plan, which shall provide incentives for surrounding developments to use alternative modes of transportation instead of individual vehicles.	SU

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
with induced travel from the closure of Bay Marina Drive would result in a significant VMT impact.			
Impact-TRA-3: **Inadequate Emergency Access from Temporary Road Closures During Project Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component).** Lanes and/or entire roadways may be closed during construction for each of the project components because of equipment, material deliveries, or construction activities within the right-of-way. Blocked roadways could prevent access to the project site or surrounding vicinity by emergency vehicles. Impacts would be significant.	PS	**MM-TRA-3: Implement Traffic Control Measures During Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component)**. For any project components that temporarily require partial and/or full roadway closures during construction, the project proponent [requiring the partial or full roadway closure(s)] shall require its contractor to plan, use, place, and maintain traffic control devices while in use at the construction site to ensure that adequate emergency access is provided throughout the duration of the road closure. If construction activities require blocking of a traffic lane(s), the project proponent shall require its contractor to use a flashing arrow board during daytime hours; however, a solar flashing arrow board shall be required for any nighttime construction that requires the closure of any traffic lanes. In certain lane closures, the use of high-level warning flags, along with other devices, is acceptable if installed in accordance with the provisions set forth in the Caltrans *California Manual on Uniform Traffic Control Devices* (Caltrans 2018). The City shall verify the proper use of traffic control devices for the Bayshore Bikeway Component, City Program – Development Component, and potentially the GB Capital Component if the proposed roadway is a City street, while the District shall verify the proper use of traffic control devices for the Balanced Plan, Pasha Rail Improvement Component, Pasha Road Closures Component, and potentially the GB Capital Component if the proposed roadway is a District street. In addition to traffic control measures, the project proponent shall require its contractor to maintain the	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		following traffic lane requirements throughout the duration of the partial or full road closure: 1. For two-way streets (e.g., a four-lane roadway), a minimum of one lane shall be provided in each direction. 2. The minimum width of a traffic lane shall be 10 feet. The lane shall be clear of obstructions, including traffic cones or delineators. Emergency vehicle access may require a traffic lane of up to 14 feet wide. 3. A separate left- or right-turn lane shall be proved if there is an existing left- or right-turn lane. 4. Complete closure of a roadway shall not be permitted without a valid Special Traffic Permit (STP) or a City-approved traffic routing plan. This includes a plan that allows one lane to be used for two directions of traffic (i.e., two-way flag control). An STP is required to use two-way flag control. 5. If work occurs at or within 100 feet of an intersection on a two-way street, an STP is required to prohibit left turns at the intersection. This requirement applies where two lanes are reduced to one and through vehicles cannot physically pass a left-turning vehicle. 6. If needed, room for a traffic lane(s) may be made available by temporarily prohibiting parking. Traffic lanes must be at least 10 feet wide and provide a sufficient transition before the lane begins and after the lane ends. To ensure that the traffic lanes provided are adequate and continuous, only one contractor at a time shall be allowed to work on any one block. If a second contractor is planning to work on a block that has a contractor, or on an adjacent block, then the second contractor shall obtain an STP before starting any work. Moreover, a contractor	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		shall not be allowed to work within a block of a project that is under City contract without receiving approval from the Resident Engineer for the subject contract, obtaining an STP, and notifying the City Fire Department and City Police Department. Flagging personnel shall be required when workers or equipment will temporarily block a traffic lane that is used for access into and out of a construction site. Flagging personnel shall ensure that traffic congestion and permanently blocked roads do not occur. The following shall apply to the flagging personnel required during project construction: 1. Flaggers must be properly equipped with a Type II vest (daytime) or Type III vest (nighttime) and a sign paddle. 2. Flaggers must be certified and have their certification card at all times. 3. A minimum of two flaggers shall be required when one lane is to be used for two directions of traffic (i.e., two-way flag control). 4. Police officers may be hired to provide flag control. A construction TDM plan shall be prepared by the respective project proponent for each project component and implemented during construction activities. The TDM plan shall be submitted by the respective project proponent to the City or District, depending on the jurisdiction where the project component is located, for review and approval prior to construction. The TDM plan shall incorporate various TDM strategies to reduce congestion during construction and may include, but is not limited to, the following: • Implementation of a ride-sharing program to encourage carpooling among workers.	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		• Adjusting work schedules so workers do not access the site during the peak hours. • Providing offsite parking locations for workers outside of the area, with shuttle services to bring them onsite. • Providing subsidized transit passes for construction workers.	
Impact-TRA-4: Removal of Tsunami Evacuation Routes from the Closure of Bay Marina Drive to Through Traffic at Marina Way (City Program – Development Component). The existing tsunami evacuation route on Bay Marina Drive/24th Street, heading east from Tidelands Avenue, could be unavailable if the City closes Bay Marina Drive to through traffic at Marina Way, which is one of the roadway options that is part of the City Program – Development Component. Impacts would be significant.	PS	**MM-TRA-4: Identify Alternate Tsunami Evacuation Routes (City Program – Development Component).** Prior to the closure of Bay Marina Drive to through traffic at Marina Way, the City shall identify an alternate tsunami evacuation route to replace the existing tsunami evacuation route on Bay Marina Drive/24th Street, heading east from Tidelands Avenue. The City shall delineate the new tsunami evacuation route on publicly accessible maps that shall be made available on the City's website. In addition, the City shall install signage at the location of the new tsunami evacuation route that (1) identifies the tsunami danger area and/or hazard zone (e.g., when entering or leaving the hazard area), evacuation routes, and assembly areas and (2) provides tsunami-response education (e.g., instruction to go to higher ground). Signage shall be implemented in accordance with state and local policies and as determined appropriate by local authorities, including the City Police Department (City of National City 2019) and City Fire Department as well as the responsible TsunamiReady® Board. The City shall implement these requirements prior to the closure of Bay Marina Drive.	LTS
Impact-TRA-5: **Inadequate Emergency Access from the Closure of Tidelands Avenue During Operation (Pasha Road Closures Component).** Closure of Tidelands Avenue between Bay Marina Drive, on the north, and West 32nd Street, on the south, and West 28th Street between Tidelands Avenue and Quay	PS	Implement **MM-HAZ-9**, as described above and in Section 4.7, *Hazards and Hazardous Materials.*	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Avenue may result in inadequate emergency access during operation. Impacts would be significant.			
Impact-TRA-6: Inadequate Emergency Access from the Closure of Bay Marina Drive (City Program – Development Component). Closure of Bay Marina (to through traffic at Marina Way) may result in inadequate emergency access during operation. Impacts would be significant.	PS	Implement **MM-HAZ-10**, as described above and in Section 4.7, *Hazards and Hazardous Materials.*	LTS
Impact-TRA-7: Inadequate Emergency Access from Marina Way Realignment (Balanced Plan). The implementation of traffic calming devices along the realigned Marina Way may result in inadequate emergency access during operation. Impacts would be significant.	PS	Implement **MM-HAZ-11**, as described above and in Section 4.7, *Hazards and Hazardous Materials.*	LTS
Impact-TRA-8: Insufficient Parking During Project Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component). Because of the potential overlap of construction for several of the project components and number of daily construction workers and trucks, the potential exists for construction of the proposed project to result in a temporarily insufficient parking supply that would lead to a temporary decrease in public coastal access. This impact would be potentially significant.	PS	**MM-TRA-5: Require Offsite Parking, Shuttle Transportation, and Incentives for Transit Use for Construction Workers and Wayfinding Signage for Visitors (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component).** Prior to the commencement of construction activity, the project proponent for each component shall provide an offsite parking location for construction workers and a shuttle service from the offsite parking location to the project site and back. For project components within the District's jurisdiction, the designated offsite parking location shall be approved by the District's Development Services Department (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, and Pasha Road Closures Component). For project components within the City's jurisdiction, the designated offsite parking location shall be approved by the City. In addition, the project proponent shall provide incentives for construction workers to use public transit. Workers	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		who cannot commute by transit and must use personal vehicles shall be required to park at the offsite parking facility. The parking requirements for the workers shall be detailed in their contract with the project proponent. Moreover, during the construction phase, some public parking shall remain open, to the extent feasible, through the phasing of construction. If onsite public parking is displaced, the project proponent shall provide conspicuous signage to direct visitors to available parking facilities throughout the duration of the construction that displaced the public parking to maintain public coastal access.	
Impact-TRA-9: Insufficient Parking for Terminal Employees During Operations (Pasha Road Closures Component). The proposed closure of roadways would result in a net decrease in the number of spaces available for on-street parking, which is currently used by NCMT employees (i.e., 249 fewer spaces). As a result, the loss of parking would displace existing NCMT employees, who would have to park on adjacent roadways, potentially resulting in a loss of available parking within the project area that could inhibit public coastal access. This impact would be potentially significant.	PS	**MM-TRA-6: Reconfigure Lot Q to Accommodate 590 Striped Parking Spaces (Pasha Road Closures Component).** Prior to implementation of the Pasha Road Closures Component, the project proponent shall restripe Lot Q (located on the southwest corner of Bay Marina Drive and Quay Avenue) to provide additional parking for employees and offset the loss of 249 parking spaces. Upon completion of this restriping, there would be 590 parking spaces in Lot Q; this would accommodate the 574 existing NCMT employees. Once completed, evidence indicating completion of the restriping shall be provided by the project proponent for the Pasha Road Closures Component to the District's Development Services Department. Pasha shall require its employees to use Lot Q and allow other employees at NCMT to use the parking lot.	LTS
Impact-TRA-10: Insufficient Parking for Pepper Park Expansion and Reconfiguration (Balanced Plan). The additional 23 parking spaces required for Pepper Park expansion and reconfiguration could result in an insufficient number of parking spaces within the project area and inhibit public coastal access. This impact would be potentially significant.	PS	**MM-TRA-7: Accommodate 23 Additional Parking Spaces at the Pepper Park Parking Lot (Balanced Plan).** Prior to issuance of the Coastal Development Permit for Pepper Park (Balanced Plan), the District shall accommodate an additional 23 parking spaces, for a total of 116 parking spaces at Pepper Park. The additional 23 spaces shall be designed to be flex spaces that can be used as either parking or an active area of the park,	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		depending on need. Following the completion of the Pepper Park expansion (including the 23 spaces), the District shall prepare a study that determines the actual (i.e., on-the-ground) demand for parking at the newly expanded park. If the results of the study demonstrate that the amount of parking can be reduced, the District will reduce the number of parking spaces to the actual on-the-ground demand identified in the study (but no more than a reduction of 23 spaces).	
Impact-C-TRA-1: Generate Cumulatively Considerable Vehicles Miles Traveled in Exceedance of Employment-Based Thresholds During Project Operations. Employment associated with operation of the proposed project would not achieve a VMT reduction of 15% below the 2050 Regional Average. Therefore, employment uses associated with the proposed project (GB Capital Component, City Program – Development Component) would have a cumulatively considerable VMT impact.	PS	Implement **MM-TRA-1**, as described above.	SU
Impact-C-TRA-2: Generate Cumulatively Considerable Vehicles Miles Traveled due to closure of Bay Marina Drive to Through Traffic at Marina Way. The proposed closure of Bay Marina Drive (to through traffic at Marina Way) would result in changes to the transportation network and the redistribution of traffic. As such, the VMT impacts associated with the Bay Marina Drive closure's induced travel would result in a significant VMT impact. Therefore, the closure of Bay Marina Drive to through traffic at Marina Way (City Program – Development Component) would have a cumulatively considerable VMT impact.	PS	Implement **MM-TRA-2**, as described above.	SU
4.14 Utilities and Service Systems			
Impact-UTIL-1: Insufficient Water Facilities Available to Serve the Proposed Project (Balanced	PS	**MM-UTIL-1: Prepare Utility Infrastructure Study (Balanced Plan, GB Capital Component, and City**	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Plan, GB Capital Component, and City Program – Development Component). Due to the potentially significant increase in water demand associated with the operation of future development as a result of implementation of the proposed project, the relocation or construction of new or expanded water facilities may be required to provide water to the project components. Therefore, potential impacts are considered to be significant.		**Program – Development Component).** Prior to the issuance of the building permits for the Balanced Plan, GB Capital Component, and City Program – Development Component, the respective project proponent shall prepare a utility infrastructure study and submit the study to the District's Development Services Department (Balanced Plan and GB Capital Component only) and the City's Community Development Department (GB Capital Component and City Program – Development Component only) for review and approval. The utility infrastructure study shall identify the capacity of existing utilities, the ability of those utilities to serve the project proponent's project component, any necessary utility improvements that would be needed to serve project proponent's project component, and alternative locations and best management practices (BMPs), if necessary, to meet the standards described as follows: avoidance of sensitive habitat and species, construction BMPs related to ground disturbance such as daily watering in high-dust areas and use of a stabilized construction entrance to reduce offsite tracking, a soil management plan if disturbed areas may be subject to contamination, a soil disposal plan (if applicable), a traffic management plan if roadways will need temporary closures, consistency with the City's Noise Ordinance, and avoidance of historical, archaeological, tribal cultural, and paleontological resources. The project proponent shall implement any and all new utility improvements or upgrades identified in the utility infrastructure study. **MM-UTIL-2: Implement Water Conservation Measures (Balanced Plan, GB Capital Component, and City Program – Development Component).** The project proponent for the respective project component shall incorporate and implement water-efficient design measures into its individual project component. Water-efficient design measures shall at a minimum, include:	

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		• Implement indoor water reduction measures, including high-efficiency toilets, high-efficiency urinals, low-flow faucets, and low-flow showers (as applicable). • Install only drought-tolerant landscaping and perform any landscaping watering through a drip system or low-flow irrigation devices. • Install cisterns above or below ground that shall collect and store runoff from rooftops and other impervious surfaces. • Install water-efficient water coolers and equipment and monitor cooling tower and boiler water chemistry to minimize mineral buildup in the system and maximize the number of times water can be recycled through the system. • Limit the use of turf and, in Pepper Park, limit the use of turf to activity fields. • Educate employees on water conservation measures on an annual basis and post water conservation stickers, signs, and posters in bathrooms, kitchens, cafeterias, conference rooms, and other places where employees congregate.	
Impact-UTIL-2: Insufficient Pipeline Capacity to Meet the Fire Flow Demands Plus Maximum Day Demands (GB Capital Component, and City Program – Development Component). In order to meet the fire-flow demands of the City Program – Development Component and the 81-room hotel to be operated under the GB Capital Component, plus maximum-day demands, existing SWA 12-inch PVC pipelines would need to be upgraded to 16-inch PVC pipelines. In the event that upsizing of the existing 12-inch pipelines does not occur, there would be insufficient capacity to accommodate fire-flow	PS	**MM-UTIL-3: Upsize the Existing Bay Marina Drive Pipeline and Install New Pipeline Along the Proposed Road Realignment to Meet Project Fire Flow Demands (GB Capital Component and City Program – Development Component).** Prior to occupancy and operation of the proposed City Program – Development Component or the four-story 81-room hotel to be operated under Phase 2 of the GB Capital Component, whichever occurs first, the project proponent for that project component (Payee) shall upsize the existing 12-inch PVC pipeline on Bay Marina Drive between the intersection of Harrison Avenue and Cleveland Avenue to a 16-inch PVC pipeline. In addition, the Payee shall install	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
demands of the project. Therefore, potential impacts are considered to be significant.		approximately 1,500 linear feet of 16-inch main pipeline along Marina Way and upsize approximately 1,700 linear feet of the existing 12-inch PVC pipeline with 16-inch pipeline. Design, permitting, and construction of the new pipelines shall be coordinated with the City Fire Marshal and SWA. Prior to occupancy and operation of the project component that is constructed second (i.e., the GB Capital Component if the City Program – Development Component is constructed first, or the City Program – Development Component if the GB Capital Component is constructed first), the project proponent for that project component (Reimbursee) shall reimburse the Payee 50% of the actual cost of designing, permitting, and constructing the new pipelines. Such reimbursement shall be a condition of the Coastal Development Permits for the City Program – Development Component or the four-story 81-room hotel to be operated under Phase 2 of the GB Capital Component.	
Impact-UTIL-3: Insufficient Sewer Facilities to Convey Wastewater Generated by Future Development (Balanced Plan, GB Capital Component, and City Program – Development Component). In the event that wastewater facility improvements are required and do not occur, there would be insufficient capacity to accommodate future project-specific generated wastewater. Therefore, due to the uncertainty of wastewater generation by future development, which would potentially require new sewer lines and wastewater facility improvements, potential impacts are considered to be significant.	PS	Implement **MM-UTIL-1**, as described above. **MM-UTIL-4: Issue Payment for City's Sewer Capacity Fee (Balanced Plan, GB Capital Component, and City Program – Development Component).** Prior to the issuance of the respective building permits for the Balanced Plan, GB Capital Component, and City Program – Development Component, the respective project proponent shall pay the City's established sewer capacity fee.	LTS
Impact-UTIL-4: Insufficient Stormwater Facilities to Convey Stormwater Generated by Future Development (Balanced Plan, GB Capital Component, City Program – Development	PS	Implement **MM-UTIL-1**, as described above.	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Component). In the event that stormwater facility improvements are required and do not occur, there would be insufficient capacity to accommodate future project-specific generated stormwater. Therefore, due to the uncertainty of stormwater generation by future development, which would potentially require stormwater facility improvements to convey project-specific generated stormwater, potential impacts are considered to be significant.			
Impact-UTIL-5: Insufficient Electricity, Natural Gas, and Telecommunications Facilities to Serve the Project Components (Balanced Plan, GB Capital Component, City Program – Development Component). In the event that new or expanded electricity, natural gas, or telecommunications facilities are required to serve the project components, the construction of these facilities could result in physical impacts on the environment. Therefore, potential impacts are considered to be significant.	PS	Implement **MM-UTIL-1**, as described above.	LTS
Impact-UTIL-6: Insufficient Water Supplies Available to Serve the Proposed Project (Balanced Plan, City Program – Development Component, and GB Capital Component). Due to the uncertainty with the pending lawsuit filed by IID, potential cutback in Colorado River water deliveries in accordance with the Lower Basin DCP, and potential for prolonged droughts due to climate change that could last more than the multiple 3-dry-year scenario analyzed in the WSA prepared for the proposed project, SWA cannot guarantee that at some point in the future, supply of imported water would not be diminished. Therefore, given this uncertainty regarding available water supply, which is necessary for operation of the proposed project, potential impacts are considered to be significant.	PS	Implement **MM-UTIL-1** and **MM-UTIL-2**, as described above. **MM-UTIL-5: Confirm Water Supply Availability for Recreational or Ornamental Water Feature (Balanced Plan, City Program – Development Component, and GB Capital Component).** Prior to construction of any recreational or ornamental water feature, if it is determined that there is a low water supply, then the feature shall not be constructed until water supply is secured or there is an alternative design that incorporates low water use. **MM-UTIL-6: Confirm Water Supply Availability for Development Project Components Prior to Issuance of Building Permits (Balanced Plan, City Program – Development Component, and GB Capital**	LTS

Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
		Component). Water availability shall be confirmed by SWA prior to issuance of building permits. The confirmation of water availability shall be provided in written form by SWA. If SWA indicates there is not sufficient water supply to serve the project, the scale of the project shall be reduced to a level that is serviceable by SWA or use recycled water.	

Chapter 1
Introduction

1.1 Project Overview

The San Diego Unified Port District (District), City of National City (City), GB Capital Holdings (GB Capital), and Pasha Automotive Services (Pasha) (collectively, project proponents) are proposing a project with both landside and waterside development components; an amendment to the District's Port Master Plan (PMP); amendments to the City's Local Coastal Program (LCP), General Plan, Harbor District Specific Area Plan (HDSAP), Land Use Code (LUC) (Municipal Code Title 18 Zoning), and Bicycle Master Plan (collectively "project" or "proposed project") on approximately 77 acres, consisting of approximately 58 landside acres and 19 waterside acres (project site).

Specifically, the proposed project includes the following main elements.

- Changes to land and water use designations in the District's PMP (National City Marina District Balanced Land Use Plan [Balanced Plan])
- Construction and operation of up to four hotels, a recreational vehicle (RV) park, modular cabins, dry boat storage, and an expanded marina within the District's jurisdiction (GB Capital Component)
- Construction and operation of a rail connector track and storage track within the District's jurisdiction (Pasha Rail Improvement Component)
- Closure of Tidelands Avenue between Bay Marina Drive and 32nd Street as well as West 28th Street between Tidelands Avenue and Quay Avenue, within the District's and City's jurisdictions, and redesignation of the area to Marine-Related Industrial in the District's PMP (Pasha Road Closures Component)
- Construction and operation of Segment 5 of the Bayshore Bikeway within the District's and City's jurisdictions (Bayshore Bikeway Component)
- Construction and operation of hotel, restaurant, retail, and/or a combination of tourist-/visitor-serving commercial development north of Bay Marina Drive and the potential closure or narrowing of Bay Marina Drive west of Marina Way to through vehicular traffic within the City's jurisdiction (City Program – Development Component)
- PMP Amendment (PMPA) to clarify jurisdictional land use authority, redesignate land uses, and balance commercial and maritime uses (PMPA Component)
- Amendments to the City's LCP, General Plan, HDSAP, LUC, and Bicycle Master Plan that would include changes to jurisdictional boundaries; changes to subarea boundaries; and changes to land use, specific plan, and zone designations (City Program – Plan Amendments Component)

The proposed Balanced Plan includes a PMPA and corresponding LCP amendment (LCPA) to correct jurisdictional land use maps and clarify the land use authority, redesignate land uses, and balance commercial and maritime uses. The Balanced Plan was created in response to a public planning process to identify a reconfiguration of land uses to optimize recreational, maritime, and commercial uses within the National City Marina District, which is the area generally north of

Sweetwater Channel and west of the wildlife refuge. Implementation of the Balanced Plan would clearly delineate maritime land use boundaries from potential recreational and commercial land use boundaries while allowing operational efficiencies to increase at the National City Marine Terminal and maintaining sensitivity to the function and sustainability of the Paradise Marsh, as well as public access and recreation in an expanded Pepper Park. The Balanced Plan proposes to accomplish this through the reconfiguration of roadways, a new rail connection, reconfiguration of commercial recreation and maritime land uses, the expansion of Pepper Park, and preservation of habitat buffers for the adjacent wildlife refuge.

The Balanced Plan, most of the GB Capital Component, the Pasha Rail Improvement Component, most of the Pasha Road Closures Component, and a portion of the Bayshore Bikeway Component are all within the District's jurisdictional boundaries. Consequently, changes proposed by these components would require a PMPA and are referred to collectively as the "Port Master Plan Amendment Component" or "PMPA Component" and include:

- Incorporation of the Balanced Plan, most of the GB Capital Component, the Pasha Rail Improvement Component, and the alignment of the Bayshore Bikeway into the PMP
- Removal of the Street designation for the street closures associated with the Pasha Road Closures Component and redesignation of these areas (with the exception of the area within the City's jurisdiction) as Marine-Related Industrial
- Addition of approximately 12.7 acres of the Balanced Plan, located mostly on the GB Capital site east of the mean high tide line and owned in fee by the District, into the PMP

Most of the proposed Bayshore Bikeway Component and the entire proposed City Program Components are within the City's jurisdiction. Consequently, the City Program – Plan Amendments Component would consist of the following:

- Removal of approximately 12.7 acres of the Balanced Plan, located mostly on the GB Capital site east of the mean high tide line and owned in fee by the District, from the City's General Plan, LCP, HDSAP, and LUC to reflect changes in land use and jurisdictional authority
- Incorporation of seven parcels north of Bay Marina Drive and adjacent rights-of-way (ROWs) into the City's HDSAP
- Amendment to the City's Bicycle Master Plan to reflect the realignment of the Bayshore Bikeway

In addition to the project overview provided above, this chapter briefly discusses (1) the purpose of the California Environmental Quality Act (CEQA) and this Draft Environmental Impact Report (EIR), (2) the intended uses for this Draft EIR, (3) the scope and content of this Draft EIR, and (4) the organization of this Draft EIR.

1.2 Purpose of the California Environmental Quality Act and the Environmental Impact Report

This Draft EIR evaluates the environmental effects of the proposed project and has been prepared in compliance with CEQA (Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.), and the District's *Guidelines for Compliance with the California Environmental Quality Act* (Resolution 97-191) (District 1997).

CEQA was enacted by the California legislature in 1970. As noted under State CEQA Guidelines Section 15002, CEQA has four basic purposes:

1. Inform governmental decision-makers and the public about the potential significant environmental effects of proposed activities.
2. Identify the ways in which environmental damage can be avoided or significantly reduced.
3. Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
4. Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

An EIR is an informational document, the purpose of which is to inform members of the public and agency decision-makers of the significant environmental effects of a proposed project, identify feasible ways to reduce the significant effects of the proposed project, and describe a reasonable range of feasible alternatives to the project that would reduce one or more significant effects and still meet the proposed project's objectives. In instances where significant impacts cannot be avoided or mitigated, the proposed project may nonetheless be carried out or approved if the approving agency finds that economic, legal, social, technological, or other benefits outweigh the unavoidable significant environmental impacts.

1.3 Intended Uses of the Environmental Impact Report

This section discusses the intended uses for this Draft EIR and includes (1) a list of agencies that would be expected to use this Draft EIR for decision-making, (2) a list of required permits and other approvals that would be required to implement the proposed project, and (3) an explanation of the project-level analyses contained within this EIR. Environmental review and consultation requirements under federal, state, or local laws, regulations, or policies that are in addition to CEQA are discussed in the applicable individual resource sections within Chapter 4, *Environmental Analysis*.

1.3.1 Agencies Expected to Use this Environmental Impact Report

The District is the CEQA lead agency, as defined under State CEQA Guidelines Section 15050, because it has principal responsibility for approving the proposed project and the majority of the project site is within the District's land use jurisdiction. As the lead agency, the District also has primary responsibility for complying with CEQA. As such, the District has analyzed the environmental effects of the proposed project; the results of that analysis are presented in this Draft EIR. The Board of Port Commissioners (Board), in its role as the decision-making body of the District, is responsible for certifying the Final EIR and approving the Findings of Fact and Statement of Overriding Considerations (if applicable) pursuant to Sections 15090–15093 of the State CEQA Guidelines prior to project approval. The Board is also responsible for approval of the PMPA and Coastal Development Permits (CDPs) and any real estate agreements for the project components

within the District's jurisdiction. If the Board approves the PMPA, the California Coastal Commission (CCC) will then consider whether to certify the PMPA. The CCC, as a CEQA responsible agency, would use the EIR in making its decision whether to certify the PMPA. If the PMPA is fully certified by the CCC, the Board would consider approval of CDPs and leases for the project components within the District's jurisdiction, allowing the proposed project within the District's jurisdiction to proceed to construction.

The City and CCC are considered responsible agencies. Certification of the Final EIR and adoption of the mitigation monitoring and reporting program for portions with City discretionary authority is required by the City, as a CEQA responsible agency. The City's approval is required for amendments to the City's General Plan, LUC, LCP, and HDSAP and for authorization of issuance of CDP(s) for proposed project components within City jurisdiction. Furthermore, the City's approval is required for the issuance of other discretionary permits (e.g., CDPs, conditional use permit) and ministerial permits (e.g., grading, building, electrical). The CCC must approve the certification of, and final action on, the PMPA as well as amendments to the LCP, General Plan, LUC, and HDSAP. The California Department of Transportation (Caltrans) is also considered a responsible agency because approval from Caltrans would be required in order for GB Capital to use the Caltrans property south of the marina (the portion of the jetty east of the mean high tide line).

The California State Lands Commission (CSLC) is a trustee agency, as defined in State CEQA Guidelines Section 15386. CSLC may have an interest in the proposed project; however, CSLC would not issue approvals or permits that would be required to implement the proposed project.

Table 1-1 provides a summary list of the approvals and permits that would be required.

Table 1-1. List of Required Discretionary Actions

Discretionary Action	Agency
Certification of Final EIR	District, City, Caltrans
Adoption of Mitigation Monitoring and Reporting Program	District, City, Caltrans
Adoption of Findings of Fact	District, City, Caltrans
Adoption of Statement of Overriding Considerations, if applicable	District, City, Caltrans
Approval of amendments to City's General Plan, LUC, LCP, and HDSAP	City
Approval of Street Vacation Permit for portion of Pasha Road Closures Component that is within the City's jurisdiction (i.e., east of the mean high tide line)	City
Approval and adoption of PMPA	District
Certification of, and final action on, PMPA	CCC
Certification of amendments to LCP, General Plan, LUC, and HDSAP	CCC
Authorization for issuance of CDPs for proposed project components in District jurisdiction	District
Authorization of issuance of CDP(s) for proposed projects components within City jurisdiction	City
Approval of various real estate agreements (e.g., new lease, lease amendment, tideland use and occupancy permit, easement)	District

Discretionary Action	Agency
Approval of sublease, lease, or sale for the GB Capital Component on eastern half of the jetty	Caltrans
Concept approval for the project components in District jurisdiction	District
Approval of Bayshore Bikeway Component	Caltrans, City
Funding Mechanism(s) for public improvements	District, City

Review and issuance of permits, real estate agreements, or other approvals may be required for implementation of the specific project components. Approval from the San Diego Association of Governments (SANDAG) may be required for the Bayshore Bikeway Component. Metropolitan Transit System (MTS) approval may be required for construction and utilization of (inactive rail) MTS ROW south of Bay Marina Drive for the Bayshore Bikeway Component. Approval from San Diego Gas & Electric Company (SDG&E) may be needed for the portion of the GB Capital Component on SDG&E property east of the marina. Issuance of Resource Agency Permits may be required from the U.S. Army Corps of Engineers, U.S. Coast Guard, Regional Water Quality Control Board, California Department of Fish and Wildlife (CDFW), and National Marine Fisheries Service.

1.4 Scope and Content of the Draft Environmental Impact Report

As the CEQA lead agency, the District is responsible for determining the scope and content of this Draft EIR, a process referred to as *scoping*. As part of the scoping process, the District considered the environmental resources present on site and in the surrounding area and identified the probable environmental effects of the proposed project. On December 20, 2018, the District posted a Notice of Preparation (NOP) with the County Clerk in accordance with Section 15082 of the State CEQA Guidelines. The public review period for the NOP began on December 20, 2018, and ended on January 31, 2019. The NOP and notices of the NOP availability were mailed to public agencies, organizations, and other interested individuals to solicit their comments on the scope and content of the environmental analysis. The District also held a public scoping meeting on January 31, 2019, at the National City Aquatic Center at 3300 Goesno Place, National City, CA 91950.

Comments received in response to the NOP were used to determine the scope of this Draft EIR. The comments are summarized in Table 1-2 below. Based on the District's preliminary evaluation of the probable effects of the proposed project and a thorough review of the comments on the NOP, the Draft EIR analyzes effects associated with the following resources.

- Aesthetics and Visual Resources
- Air Quality and Health Risk
- Biological Resources
- Cultural Resources, Tribal Cultural Resources, and Paleontological Resources
- Energy
- Greenhouse Gas Emissions and Climate Change

- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise and Vibration
- Population and Employment
- Public Services and Recreation
- Transportation, Circulation, and Parking
- Utilities and Service Systems

Impacts associated with agricultural and forestry resources, geology and soils, mineral resources, and housing were determined to be less than significant in the NOP; therefore, the proposed project would not have an adverse effect on any of these resources. Chapter 6, *Additional Consequences of Project Implementation*, includes a brief analysis as to why impacts on agricultural and forestry resources, geology and soils, mineral resources, and housing would not be significant, as discussed in the NOP, which is included as Appendix A of this Draft EIR.

1.4.1 Comments Received in Response to the Notice of Preparation

Several specific environmental issues were raised in the comments on the NOP. A summary of these comments and the sections where they are addressed in this Draft EIR are provided in Table 1-2. Only comments that pertain to the environmental scope of this Draft EIR are summarized. Copies of all NOP comment letters are provided in Appendix B of this Draft EIR, and the NOP is included as Appendix A.

Table 1-2. Summary of NOP Comments Received

Commenter	Environmental Topic(s)	Location where Addressed in this Draft EIR
State		
State of California, Governor's Office of Planning and Research, State Clearinghouse and Planning Unit, January 2, 2019	Provides SCH# 2018121054 and notes which state agencies received a copy of the NOP.	N/A
State of California Native American Heritage Commission, Katy Sanchez, December 27, 2018	Commenter provides standard recommendations for adequately assessing the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or, barring both, mitigation of project-related impacts on tribal cultural resources.	Section 4.4, *Cultural Resources, Tribal Cultural Resources, and Paleontological Resources*

Commenter	Environmental Topic(s)	Location where Addressed in this Draft EIR
State of California Department of Transportation, District 11, Melina Pereira, Acting Branch Chief, January 31, 2019	The traffic impact study should include ramp intersections along Interstate (I-) 5: • Northbound (NB) and southbound (SB) I-5/Mile of Cars • SB exit and entrance ramp to/from 8th St • NB entrance ramp from 8th St and 7th St • NB exit ramp to W. Plaza Blvd • NB entrance ramp from Civic Center Dr • SB exit ramp to Cleveland Ave • NB exit ramp to Harbor Dr	Section 4.13, *Transportation, Circulation, and Parking*
	Requests the following intersections along State Route (SR-) 54 be included: • Eastbound (EB) entrance ramp from National City Blvd • Westbound (WB) exit ramp to National City Blvd • EB exit/entrance ramp to/from Highland Ave • WB exit/entrance ramp to/from Highland Ave	Section 4.13, *Transportation, Circulation, and Parking*
	Analyze the I-5/SR-54 connector.	Section 4.13, *Transportation, Circulation, and Parking*
	The geographic area examined in the Traffic Impact Study (TIS) should also include, at a minimum, all regionally significant arterial system segments and intersections, including state highway facilities where the project will add over 100 peak hour trips. State highway facilities that are experiencing noticeable delays should be analyzed in the scope of the traffic study for projects that add 50 to 100 peak hour trips.	Section 4.13, *Transportation, Circulation, and Parking*
	A focused analysis may be required for project trips assigned to a state highway facility that is experiencing significant delay, such as where traffic queues exceed ramp storage capacity.	Section 4.13, *Transportation, Circulation, and Parking*
	The TIS could also consider implementing vehicle miles traveled analysis into the modeling projections.	Section 4.13, *Transportation, Circulation, and Parking*
	Any increase in goods movement operations and its impacts on state highway facilities should be addressed in the TIS.	Section 4.13, *Transportation, Circulation, and Parking*
	The data used in the TIS should not be more than 2 years old.	Section 4.13, *Transportation, Circulation, and Parking*
	Provide Synchro Version 10 files.	Section 4.13, *Transportation, Circulation, and Parking*

Commenter	Environmental Topic(s)	Location where Addressed in this Draft EIR
	Caltrans endeavors for any direct and cumulative impacts on the State Highway System be eliminated or reduced to a level of insignificance pursuant to the CEQA and National Environmental Policy Act standards.	Section 4.13, *Transportation, Circulation, and Parking*
	Mitigation measures for state facilities should be included in the TIS.	Section 4.13, *Transportation, Circulation, and Parking*
	Multi-model/Complete Streets – Caltrans views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system.	Section 4.13, *Transportation, Circulation, and Parking*
	Caltrans encourages and supports close collaboration with local agencies to work toward a safe, functional, interconnected, multi-model transportation system integrated through applicable "smart growth" type land use planning and policies.	Section 4.13, *Transportation, Circulation, and Parking*
	Caltrans is implementing Complete Streets and Climate Change policies into State Highway Operations and Protection Program projects to meet multi-modal mobility needs.	Section 4.13, *Transportation, Circulation, and Parking*
	Right-of-Way – Clarify the long-term lease between the District and Caltrans as mentioned on page 8 of the NOP document. Any work performed within Caltrans ROW will require discretionary review and approval by Caltrans and an encroachment permit will be required for any work within Caltrans' ROW prior to construction.	Section 4.13, *Transportation, Circulation, and Parking*
CDFW, Gail Sevrens, Environmental Program Manager, January 23, 2019	CDFW is a Responsible Agency under CEQA and may need to exercise regulatory authority as provided by the Fish and Game Code.	Section 4.3, *Biological Resources*
	San Diego Bay is the third largest protected natural bay on California's coast. It is very important to preserve and protect the remaining shallow or intertidal, soft shorelines and wetlands within the Bay.	Section 4.3, *Biological Resources*
	Project areas associated with the Pier 32 Marina and Sweetwater Channel include eelgrass beds and potential eelgrass habitat identified in 2017.	Section 4.3, *Biological Resources*
	The marina expansion has the potential to result in potentially significant impacts that are in addition to the marina's current operation.	Section 4.3, *Biological Resources*
	CDFW recommends that eelgrass surveys and mitigation meet or exceed minimum requirements and performance standards as per the California	Section 4.3, *Biological Resources*

Commenter	Environmental Topic(s)	Location where Addressed in this Draft EIR
	Eelgrass Mitigation Policy unless otherwise approved in writing by CDFW.	
	CDFW considers adverse impacts on a species listed as fully protected pursuant to Fish and Game Code to be significant.	Section 4.3, *Biological Resources*
	CDFW recommends that the Draft EIR thoroughly analyze the project's potential to affect light-footed Ridgway's rail.	Section 4.3, *Biological Resources*
	Light-footed Ridgway's rail populations were in decline until the 1970s/1980s when management efforts began.	Section 4.3, *Biological Resources*
	Based on the foregoing and the species' presence, project impacts could potentially reduce the number and/or restrict the range of light-footed Ridgway's rail.	Section 4.3, *Biological Resources*
	The California least tern nesting site (e.g., D Street nesting site) is located on and managed by the U.S. Fish and Wildlife Service San Diego Wildlife Refuge unit.	Section 4.3, *Biological Resources*
	CDFW considers adverse impacts on a species protected by the California Endangered Species Act (CESA), for purposes of CEQA, to be significant without mitigation.	Section 4.3, *Biological Resources*
	Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain a CESA permit.	Section 4.3, *Biological Resources*
	CDFW recommends that the Draft EIR thoroughly analyze the project's potential to affect Belding's savannah sparrow and obtain CESA permits as necessary.	Section 4.3, *Biological Resources*
	Belding's savannah sparrow is one of a few avian species that resides year-round in the coastal salt marshes of Southern California between Santa Barbara and the Mexican border.	Section 4.3, *Biological Resources*
	CDFW recommends that the Draft EIR include a full impact analysis of CESA-listed species and their habitats that may exist in the project area.	Section 4.3, *Biological Resources*
	Species of plants and animals need not be officially listed as Endangered (E), Rare (R), or Threatened (T) on any state or federal list to be considered E, R, or T under CEQA.	Section 4.3, *Biological Resources*
	The Draft EIR should provide a complete survey assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying rare, endangered, threatened, sensitive, and locally unique species and sensitive habitats.	Section 4.3, *Biological Resources*

Commenter	Environmental Topic(s)	Location where Addressed in this Draft EIR
	The Draft EIR should update the biological flora and fauna surveys performed in 2016. For species identified with moderate to high potential to occur within the project area, the Draft EIR should utilize biological surveys no older than 1 year from the time of public circulation.	Section 4.3, *Biological Resources*
	The Draft EIR should include focused and comprehensive surveys for eelgrass and for fully protected, sensitive, or locally or regionally rare species such as California least tern, California brown pelican, western snowy plover, and light-footed Ridgway's rail.	Section 4.3, *Biological Resources*
	The Draft EIR should include a detailed comprehensive avoidance, minimization, and compensation plan for sensitive wetland/upland and eelgrass habitat impacts.	Section 4.3, *Biological Resources*
	This Draft EIR, and any other future planning documents should incorporate project designs that account for the sensitivity of Paradise Marsh and the San Diego Bay National Refuge.	Section 4.3, *Biological Resources*
	All land use planning documents and accompanying figures should distinguish between recreational open spaces and lands managed for the benefit of biological resources (e.g., the 100-foot and 200-foot wetland buffers depicted on Figure 2.1 of the NOP).	Section 4.3, *Biological Resources*
	The project should identify the need to balance environmental stewardship with the opportunities and other constraints.	Section 4.3, *Biological Resources*
	Prior to drafting the EIR, close coordination with Caltrans, the U.S. Fish and Wildlife Service, and CCC is encouraged when developing bike path or trail proposals.	Section 4.3, *Biological Resources*
	The Draft EIR should include mitigation measures and monitoring plans proposed to alleviate project impacts on locally rare, sensitive, and protected species including sea turtles, birds, and fish and their habitats used for foraging, spawning, nesting, and roosting habitats.	Section 4.3, *Biological Resources*
	CDFW would like to receive, review, and collaborate on draft/final eelgrass, wetland and species mitigation, monitoring, protection plans, and survey reports.	Section 4.3, *Biological Resources*
	If eelgrass mitigation and translocation is warranted, CDFW would require a permit for eelgrass collection and authorization for translocations.	Section 4.3, *Biological Resources*
	The District should include other project locations and design alternatives evaluated to avoid and minimize overwater structures and general boating	Chapter 7, *Alternatives to the Proposed Project*

Commenter	Environmental Topic(s)	Location where Addressed in this Draft EIR
	and mooring impacts on the Refuge, wetlands, channel, and eelgrass habitats.	
	CDFW recognizes the potential for sound impacts on marine life associated with underwater noise including but not limited to pile driving, dredging, boating and drilling. The agreed upon sound pressure levels are 206 decibels (dB) peak and 187 dB accumulated sound exposure level. CDFW recommends that sound pressure level monitoring be included for proposed in-water work as appropriate.	Section 4.3, *Biological Resources*
	CDFW recommends that measures be taken to avoid impacts on nesting birds.	Section 4.3, *Biological Resources*
	CDFW recommends prohibiting the use of invasive plant species in any landscaped areas.	Section 4.3, *Biological Resources*
	CDFW may require an aquaculture permit, letter of authorization, or scientific collecting permit depending on the type and purpose of aquaculture activities.	Section 4.3, *Biological Resources*
State of California Public Utilities Commission, Matt Cervantes, January 31, 2019	The California Public Utilities Commission has jurisdiction over rail crossings (crossings) in California.	Section 4.13, *Transportation, Circulation, and Parking*
	The segment of Tidelands Avenue between Bay Marina Drive and 32nd Street currently contains the Tidelands Avenue north of 32nd Street crossing of the BNSF Railway tracks.	Section 4.13, *Transportation, Circulation, and Parking*
	The Bayshore Bikeway proposed alternative routes would involve modifications to the approaches of the following crossings: • 19th St crossing • 19th St east of Tidelands Avenue crossing • Tidelands Avenue north of 19th Street crossing • Civic Center Dr In planning the bikeway route, the District should consider safety improvements to railroad crossings along the route such as addition or upgrade of crossing warning devices.	Section 4.13, *Transportation, Circulation, and Parking*
	Construction or modification of public crossings requires authorization from the commission.	Section 4.13, *Transportation, Circulation, and Parking*
Regional		
SANDAG, Seth Litchney, Senior Regional Planner, January 20, 2019	SANDAG comments are submitted from a regional perspective emphasizing the need for better land use and transportation coordination.	Section 4.13, *Transportation, Circulation, and Parking*
	Consider any impacts that the proposed project may have on truck and rail traffic to and from the Port.	Section 4.13, *Transportation, Circulation, and Parking*

Commenter	Environmental Topic(s)	Location where Addressed in this Draft EIR
	Consider avoiding placing incompatible land uses near each other, or consider creating a buffer between these land uses. Similarly, consider any noise impacts from the proposed rail connector track and storage track.	Section 4.13, *Transportation, Circulation, and Parking*
	Consider integrating transportation demand management strategies to help mitigate parking and traffic impacts. The project presents the opportunity to support the SANDAG Regional Mobility Hub Implementation Strategy and reduce drive-alone trips by promoting shared mobility services (e.g., bikeshare, on-demand rideshare, scootershare, carshare) that connect the waterfront to the 24th Street Trolley Station.	Section 4.13, *Transportation, Circulation, and Parking*
	Refer to the Mobility Hub Features Catalog. The Mobility Hub Features Catalog and additional information on the Regional Mobility Hub Implementation Strategy are available at sdforward.com/mobilityhubs.	Section 4.13, *Transportation, Circulation, and Parking*
	The District and City can partner with iCommute to learn more about the mobility hub concept and to promote participation in regional transportation demand management programs and services, including the Regional Vanpool Program; Guaranteed Ride Home service; and transit, biking, and carpool incentive programs.	Section 4.13, *Transportation, Circulation, and Parking*
	In February 2018, SANDAG opened a segment of the Bayshore Bikeway along Harbor Drive from the National City boundary south to Civic Center Drive and Tidelands Avenue. The project also installed interim bike lanes on Tidelands Avenue and 32nd Street while the District plans the permanent bike path connection south of Civic Center Drive. SANDAG understands that the closure of Tidelands Avenue is part of the Balanced Plan and requests that the existing/interim bikeway facility on Tidelands Avenue is part of the Balanced Plan and requests that the existing/interim bikeway facility on Tidelands Avenue not be closed before the permanent alignment of Bayshore Bikeway is constructed and open to the public.	Section 4.13, *Transportation, Circulation, and Parking*
	Add text to describe Figure 17, which shows existing, interim, and ultimate alignments of the Bayshore Bikeway; consider editing the legend to reflect interim alignment and ultimate alignment (as opposed to "potential permanent alignment") of the Bayshore Bikeway. Furthermore, consider adding text to the first paragraph of this section stating that the alignment would connect directly to existing segments to the north and south of the project area.	Chapter 3, *Project Description*, and Section 4.13, *Transportation, Circulation, and Parking*

Commenter	Environmental Topic(s)	Location where Addressed in this Draft EIR
	SANDAG has a number of resources that can be used for additional information or clarification on topics discussed in this letter. Relevant sources are found at SANDAG.org.	N/A
San Diego County Archaeological Society, Environmental Review Committee, James W Royale, Jr., Chairperson, January 27, 2019	Requests a copy of the Draft EIR and the archaeological technical report when they become available for public review.	N/A
Sweetwater Authority, Luis Valdez, P.E., January 31, 2019	Note that this project may be subject to the preparation of a Water Supply Assessment.	Section 4.12, *Public Service and Recreation*
	Sweetwater Authority requests that water facilities in the project area be located within roads and away from planned development areas and environmental buffers.	Section 4.12, *Public Service and Recreation*
The City of San Diego Planning Department, Heidi Vonblum, January 31, 2019	Requests that under the Hydrology and Water Quality section of the Initial Study/Environmental Checklist that the Sweetwater River Channel be evaluated in the Draft EIR. The same comment applies under Utilities and Service Systems.	Section 4.8, *Hydrology and Water Quality,* and Section 4.14, *Utilities and Service Systems*
Organizations		
Save Our Heritage Organization (SOHO), Bruce Coons, January 28, 2019	Recommends that this report include the relocation of Granger Hall to Pepper Park in National City and to avoid any impacts on the Coronado Railroad.	Section 4.4, *Cultural Resources, Tribal Cultural Resources, and Paleontological Resources*
	SOHO wants to take this opportunity to first support relocating the historical and deteriorating Granger Hall to Pepper Park. Avoid any impact on the Coronado Railroad, a resource that SOHO litigated for over 10 years.	Section 4.4, *Cultural Resources, Tribal Cultural Resources, and Paleontological Resources*
Environmental Health Coalition (EHC), Sandy Naranjo and Joy Williams, January 31, 2019	EHC requests a full description of public access to the project area for bikers and walkers east of I-5 in the Project Description.	Chapter 3, *Project Description*
	EHC states that sensitive air quality receptors include children, seniors, and others using Pepper Park. EHC expresses the need to analyze impacts on the nearest homes on Cleveland and McKinley.	Section 4.2, *Air Quality and Health Risk*
	EHC notes that the Initial Study/Environmental Checklist does not state what threshold of significance the District plans to use for air quality.	Section 4.2, *Air Quality and Health Risk*
	EHC states that the District should not let current conditions become worse.	Section 4.2, *Air Quality and Health Risk*
	EHC provided recommended mitigation measures for air quality impacts.	Section 4.2, *Air Quality and Health Risk*

Commenter	Environmental Topic(s)	Location where Addressed in this Draft EIR
	EHC states that the EIR should analyze potential impacts on species of San Diego Bay fish that are caught and eaten by subsistence fishers.	Section 4.3, *Biological Resources*
	EHC suggests that sea level rise must be analyzed in the EIR. Also, the greenhouse gas (GHG) section should examine the project's consistency to reduce GHG emissions by 40% by 2030.	Section 4.6, *Greenhouse Gas Emissions and Climate Change*
	EHC suggests considering the following GHG measures: • Use an automated parking system for Pasha vehicles. • Require initial and continuing energy audits of project building facilities. • Require that new hotels be net-zero in their GHG impact. • Reduce the scale of the project.	Section 4.6, *Greenhouse Gas Emissions and Climate Change*
	The EIR needs a comprehensive transportation analysis that will outline how the District will work with MTS to create intermodal transportation options to the marina. Work on creating a permanent heavy duty truck route with sufficient heavy duty truck parking.	Section 4.13, *Transportation, Circulation, and Parking*
	Analyze traffic and pedestrian safety on the 24th Street intersection east of the I-5 ramp. Analyze impacts of narrowing or closure of Bay Marina Drive will have on 24th Street and the intersection with I-5.	Section 4.13, *Transportation, Circulation, and Parking*
	Closure of Tidelands needs to address emergency vehicles access, safety, or public transportation routes that will enable people to get to Pepper Park.	Section 4.13, *Transportation, Circulation, and Parking*
	The EIR should analyze how the District will work with MTS to increase safe and easy public accessibility to the marina.	Section 4.13, *Transportation, Circulation, and Parking*
	The EIR should conduct an analysis on the efficiency of cargo moving strategies but does not include an analysis on the impacts of truck idling, parking, and lack of a permanent truck route.	Section 4.13, *Transportation, Circulation, and Parking*
	EHC suggests constructing a permanent truck route and designating an area for truck parking and idling.	Section 4.13, *Transportation, Circulation, and Parking*
	EHC suggests constructing a shuttle service route for construction workers to job sites.	Section 4.13, *Transportation, Circulation, and Parking*
	EHC asks about public transit stops	Section 4.13, *Transportation, Circulation, and Parking*

Commenter	Environmental Topic(s)	Location where Addressed in this Draft EIR
	EHC professes the need to address mobility options such as public mass transit. Suggests addressing vehicle miles traveled by construction workers.	Section 4.13, *Transportation, Circulation, and Parking*
	Analyze a segment of Bayshore Bikeway that is away from the heavy-duty traffic. Suggests a bikeway and pedestrian path that connect the marina east of I-5 analyzed.	Section 4.13, *Transportation, Circulation, and Parking*
	Discuss safe pedestrian and bicycle paths east of I-5 and a pedestrian bridge over I-5 to the marina.	Section 4.13, *Transportation, Circulation, and Parking*
	West side community lacks access to Pepper Park and wants the ability to have free and safe access to park and marina.	Section 4.13, *Transportation, Circulation, and Parking*
	West side community looks forward to working with the District on the design of the redeveloped park.	Section 4.12, *Public Services and Recreation*
	Need to address closure of Pepper Park for construction as well as the proposed amenities at the marina.	Section 4.12, *Public Services and Recreation*
	Invest in amenities at Paradise Creek Park community garden and shuttle service as a mitigation measure to offset impacts of the closure of Pepper Park.	Section 4.12, *Public Services and Recreation*
	The amenities in the RV resort should be free to the public.	Section 4.11, *Population and Employment*
	The hotel developments in the marina need to be environmentally sustainable.	Section 4.11, *Population and Employment*
	Opposes relocating Hall to Pepper Park.	Section 4.12, *Public Services and Recreation*
	Opposes the elimination of public participation on Aquatic Center programming based on financial ability/inability to pay.	Section 4.12, *Public Services and Recreation*
	The project provides an opportunity for labor peace and local hire of jobs in both the construction and operations of the projects proposed in the Balanced Plan.	Section 4.11, *Population and Employment*
	EIR should include how an employer's agreement to card check neutrality will ensure equitable disbursement of benefits generated on District Tidelands.	Section 4.11, *Population and Employment*
Individuals		
Marcus Bush, January 24, 2019	To mitigate the cumulative GHG emission and traffic impacts, a pedestrian, bike, transit bridge is needed over I-5 to connect the 24th Street Trolley Station and Westside National City neighborhood with the waterfront.	Section 4.13, *Transportation, Circulation, and Parking*

Commenter	Environmental Topic(s)	Location where Addressed in this Draft EIR
	Consider a rail shuttle or bus connection between the 24th Street Trolley Station to Pepper Park and the marina/future hotels.	Section 4.13, *Transportation, Circulation, and Parking*
Margaret Godshalk, January 31, 2019	Modular cabins on the jetty will obstruct the clear view of the Bay when walking. If modular cabins are constructed, it will eliminate visual access.	Section 4.1, *Aesthetics and Visual Resources*
	Impact on air quality from the vessels serving Pasha; use electric service to the vessels and smokestack bonnet to capture emissions. Study possible increase in vessels that serve Pasha.	Section 4.2, *Air Quality and Health Risk*
Ted Godshalk, January 31, 2019	Study a one-story, dry boat storage building of 20,000 square feet capable of storing 100 boats at a maximum height 30 feet.	Chapter 7, *Alternatives to the Proposed Project*
	Study the location of a new maintenance building of 4,000 square feet and a 7,000-square-foot maintenance yard at the southwest end of the proposed dry boat storage.	Chapter 7, *Alternatives to the Proposed Project*
	Study the construction of a "Central Promenade" of 30 feet in width to accommodate pedestrian only in a north-south orientation from Marina Way through the RV park to the viewpoint pier at the existing marina.	Chapter 7, *Alternatives to the Proposed Project*
	Study the construction of a walking path and a viewport park on the jetty south of the marina with no cabins or other structures.	Chapter 7, *Alternatives to the Proposed Project*
	Study the cumulative sum of the impacts from the five new water-based infrastructure items proposed in Sweetwater Channel and the Marina: moorings, floating docks, docks and gangways, aquaculture, and pier.	Throughout Chapter 4
	Study the significant hazard to the public that would be created by the proposed 500-gallon fuel tanks and their location along the reconfigured Marina Way. Study possible conditions, along with proposed road closures that may interfere with or conflict with emergency response plans and emergency evacuation plans.	Section 4.7, *Hazards and Hazardous Materials*
	The viability of Route 2 of the Bayshore Bikeway through National City is so onerous and objectionable that it is improper to consider it as an alternative route. Route 2 traverses a commercial private property where it would raise major conflicts between hotel property management, hotel parking lot users, and bike riders. The route also moves east and west along a circuitous route that bikers would find difficult and unnecessary.	Section 4.13, *Transportation, Circulation, and Parking*
	A better alternative for this EIR should be analyzed that includes a bike path of either Class I, Class II,	Chapter 7, *Alternatives to the Proposed Project*

Commenter	Environmental Topic(s)	Location where Addressed in this Draft EIR
	Bicycle Boulevard, or Cycle Track types. The unused train tracks (owned by MTS) in the middle of Cleveland Ave should be studied as a potential Brownsfield that could be removed and the street then redesigned for this alternative route.	
	Study the traffic and transportation impacts of making Tidelands Avenue a one-way street from 32nd Street at Pepper Park to Bay Marina Drive and a two-way Bay Marina Drive from Tidelands Avenue to I-5.	Section 4.13, *Transportation, Circulation, and Parking*
	Study the circulation, parking, emergency vehicle access, and evacuation routes needed to provide a high service level for hotels at GB Capital, for increased user numbers at Pepper Park, and for increased truck and train traffic in the District.	Section 4.13, *Transportation, Circulation, and Parking*
	Include in the traffic analysis, a study of the potential impacts on the Caltrans freeway entrances and exits at Bay Marina Drive and I-5.	Section 4.13, *Transportation, Circulation, and Parking*
	Study a mitigation plan where Pasha, BNSF Railway, and the District construct and use a "Smart Park" truck parking information system to manage trucks working through the Port businesses.	Section 4.13, *Transportation, Circulation, and Parking*
	Study previous 5 years throughput and determine projections of the BHSF auto business and determine how this data relates to impacts from Pasha, National City, and GB Capital proposals.	Section 4.13, *Transportation, Circulation, and Parking*
	Study the previous 5 years traffic flows and determine projections at the U.S. Navy's 19th Street gate and feeder streets and determine how this data relates to impacts from Pasha, National City, and GB Capital proposals.	Section 4.13, *Transportation, Circulation, and Parking*
	Study reducing the marine terminal area that is the historic First Point of Rest to allow for 4.5 acres to be added to Pepper Park in the area known as P3.	Chapter 7, *Alternatives to the Proposed Project*
	Study an added park area of approximately 1 acre along the west side of the entrance road D1 and 3.5 acres to be connected to the parcel P2.	Chapter 7, *Alternatives to the Proposed Project*
	Provide a matrix of the environmental checklist components that relate to each project component.	N/A

1.5 Organization of the Draft EIR

The content and format of this Draft EIR are designed to meet the requirements of CEQA and the State CEQA Guidelines Article 9. Table 1-3 summarizes the organization and content of the Draft EIR.

Table 1-3. Document Organization and CEQA Requirements

Draft EIR Chapter	Contents
Summary	Includes a brief summary of the project; identifies each significant effect, including proposed mitigation measures and alternatives to reduce or avoid the effect; identifies the areas of controversy known to the lead agency, including issues raised by agencies and the public; and summarizes the issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects (State CEQA Guidelines Section 15123).
Chapter 1 *Introduction*	Discusses the purpose of CEQA and this Draft EIR, the scope and content of this Draft EIR, the organization of this Draft EIR, and the intended uses for this Draft EIR (State CEQA Guidelines Section 15124(d)).
Chapter 2 *Environmental Setting*	Describes the overall existing physical conditions in the vicinity of the project when the analysis was initiate. Normally, the baseline condition is the physical condition that exists when the NOP is published; however, a different baseline may be used in specific cases where it is deemed appropriate. In addition, the specific existing conditions for each resource area are described in the applicable resource section in Chapter 4, *Environmental Analysis* (State CEQA Guidelines Section 15125).
Chapter 3 *Project Description*	Contains both a map of the precise location and boundaries of the project and its location relative to the region, lists the project's central objectives and underlying purpose, and provides a detailed description of the project's characteristics (State CEQA Guidelines Section 15124(a), (b), and (c)).
Chapter 4 *Environmental Analysis*	Describes the existing physical conditions for each resource area, lists the applicable laws and regulations germane to the specific resource, describes the impact assessment methodology, lists the criteria for determining whether an impact is significant, identifies the direct and indirect significant impacts that would result from implementation of the project, and lists feasible mitigation measures that would eliminate or reduce the identified significant impacts (State CEQA Guidelines Sections 15125–15126.4).
Chapter 5 *Cumulative Impacts*	Defines the cumulative study area for each resource; identifies past, present, and reasonably foreseeable future projects with related impacts within each study area; and evaluates the contribution of the project to a cumulatively significant impact. This chapter also lists feasible mitigation measures that would eliminate or reduce the identified significant cumulative impacts (State CEQA Guidelines Section 15130).
Chapter 6 *Additional Consequences of Project Implementation*	Discusses the way the project could foster economic or population growth, either directly or indirectly, in the surrounding environment; describes the significant irreversible changes associated with the project's implementation; and provides a brief discussion of the environmental resource impacts that were found to be not significant during preparation of this Draft EIR (State CEQA Guidelines Sections 15126.2(c) and (d), 15127, and 15128).
Chapter 7 *Alternatives to the Proposed Project*	Describes a reasonable range of alternatives to the project, including the No-Project Alternative; compares and contrasts the significant environmental impacts of alternatives to the project; and identifies the environmentally superior alternative (State CEQA Guidelines Section 15126.6).

Draft EIR Chapter	Contents
Chapter 8 *List of Preparers and Agencies Consulted*	Lists the individuals and agencies involved in preparing this Draft EIR (State CEQA Guidelines Section 15129).
Chapter 9 *References*	Provides a comprehensive listing by chapter of all references cited in this Draft EIR (State CEQA Guidelines Section 15148).
Acronyms and Abbreviations	A list of acronyms and abbreviations is provided for the reader's reference immediately following the list of tables and figures in the Table of Contents.
Appendices	Present additional background information and technical detail for several of the resource areas.

Chapter 2
Environmental Setting

2.1 Introduction

This section provides a description of the overall physical environmental conditions in the vicinity of the project from both a local and regional perspective, as they existed at the time the Notice of Preparation (NOP) was published (State CEQA Guidelines Section 15125). Resource-specific existing conditions are provided within each individual resource section of Chapter 4, *Environmental Analysis*. Chapter 4 also contains a project consistency analysis with all applicable plans.

2.2 Background Setting

A regional location map of the project site is shown on Figure 2-1. The proposed project consists of the project components, which are under the existing jurisdiction of either the District or the City (see Figure 2-2) or both. The City Program – Development Component, most of the Bayshore Bikeway Component, and small portions of the GB Capital Component (south of the jetty, as well as east of the marina) and Pasha Road Closures Component (between Bay Marina Drive on the north and the mean high tide line on the south) fall within the City's jurisdiction. The Balanced Plan, Pasha Rail Improvement Component, the majority of the GB Capital Component, most of the Pasha Road Closures Component, and a small portion of the Bayshore Bikeway Component are within the District's jurisdiction. Implementation of the proposed project involves two District tenants: Pasha and GB Capital.

2.3 Existing Setting

2.3.1 Location

As shown on Figure 2-2, the project site is in the southwestern portion of the city, partially within the City's existing jurisdiction and partially within the District's existing jurisdiction. The project area is generally bordered by Paradise Marsh (part of the San Diego Bay National Wildlife Refuge/ Sweetwater Marsh Unit) to the east, Sweetwater Channel to the south, National City Marine Terminal (NCMT) and maritime uses to the west, and Civic Center Drive and commercial and industrial uses to the north.

Most of the project site is on land that is within the District's jurisdiction, and the District has regulatory duties and proprietary responsibilities over these portions of the project site. These portions of land include leases since 1990 to Pasha for operation of an automotive import/export business at the marine terminal and leases since 2008 to GB Capital for operation of a recreational boat marina. In addition, Pepper Park and a portion of Sweetwater Channel (west of the mean high tide line) are part of the project site included within the District's jurisdiction, and a portion of Sweetwater Channel (east of the mean high tide line) is part of the project site included within the City's jurisdiction.



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Figure 2-1
Regional Location Map
National City Bayfront Projects & Plan Amendments EIR



Figure 2-2
Existing Jurisdiction Map
National City Bayfront Projects & Plan Amendments EIR

The proposed project consists of the following components, which, while not all contiguous, total approximately 77 acres, and are in the following general locations:

- The Balanced Plan is within the District's jurisdiction and is a land use plan to reconfigure land and water uses within the approximately 60.9-acre area generally north of Sweetwater Channel, south of the National Distribution Center, east of NCMT, and west of Paradise Marsh. The Balanced Plan proposes to reconfigure areas that are designated for Park/Plaza, Commercial Recreation, Marine Terminal, Marine-Related Industrial, Recreational Boat Berthing, and Street land uses in the PMP. The Balanced Plan also includes an expansion to Pepper Park.
- The GB Capital Component includes the Pier 32 Marina and the undeveloped lot to the north of the marina, part of Sweetwater Channel to the south of the marina, and two existing parking lots utilized by Pasha (generally to the north and west of the marina). The GB Capital site is generally bounded by Sweetwater Channel to the south, Paradise Marsh to the east, the National Distribution Center facility to the north, and NCMT to the west. The GB Capital Component is proposed to be located generally on the area identified for a Commercial Recreation land use on the Balanced Plan, but also extends into the City's jurisdiction, and outside the Balanced Plan boundaries, into Sweetwater Channel and the area east of the marina. The landside portions of the GB Capital Component, as well as the existing marina and most of the jetty, are within the District's jurisdiction.
- The Pasha Rail Improvement Component, which is within the District's jurisdiction, would traverse the lot bounded on the north by existing railroad tracks and the National Distribution Center, on the east by Marina Way, on the south by 32nd Street, and on the west by Tidelands Avenue. The Pasha Rail Improvement Component is proposed to be located in the area identified for a Marine Related Industrial land use on the Balanced Plan.
- The Pasha Road Closures Component is on Tidelands Avenue, from south of Bay Marina Drive to 32nd Street, and West 28th Street, between Quay Avenue and Tidelands Avenue. The Pasha Road Closures Component is mostly within District jurisdiction, and a portion (between Bay Marina Drive and the mean high tide line) is within City jurisdiction.
- The Bayshore Bikeway Component is generally located on a combination of existing roadways, including Bay Marina Drive, Marina Way (formerly Harrison Avenue), Cleveland Avenue, McKinley Avenue, West 19th Street, Tidelands Avenue, West 14th Street, and Civic Center Drive. Most of the Bayshore Bikeway Component is within the City's jurisdiction, and the southernmost portion is within District jurisdiction.
- The City Program – Development Component is within the City's jurisdiction, north of Bay Marina Drive, generally bounded by West 23rd Street on the north, the Interstate (I-) 5 southbound off-ramp at Bay Marina Drive to the east, Bay Marina Drive to the south, and the BNSF Railway (BNSF) railroad tracks to the west (west of the intersection of Bay Marina Drive and Marina Way).

2.3.2 Existing Land and Water Use Designations

The project site occupies land and water areas under the jurisdiction of the District or the City. Combined, the sites of the multiple project components total approximately 77 acres, with approximately 53 acres falling within the District's current PMP and approximately 24 acres within the City's LCP.

2.3.2.1 San Diego Unified Port District

The District's PMP governs the uses on District Tidelands and submerged lands that the State Legislature granted to the District, as trustee, and for which the District has land use and regulatory authority and proprietary responsibilities over these Tidelands. "Tidelands" are lands between the lines of mean high tide and mean low tide, whereas "submerged lands" are those seaward of mean low tide and not uncovered in the ordinary ebb and flow of the tide (District 2020). As of the date of the NOP, the PMP has 10 planning districts covering approximately 5,500 acres of District jurisdiction. As shown on Figure 2-3, several of the project components (most of the Balanced Plan, the majority of the GB Capital Component, most of the Pasha Rail Improvement Component, and most of the Pasha Road Closures Component, as well as some of the southernmost part of the Bayshore Bikeway Component) are within the PMP and, more specifically, the Lumber Yards, Sweetwater, Launching Ramp, and Marina subareas of the National City Bayfront Planning District (Planning District 5) (Subareas 55, 57, 58, and 59, respectively). Planning District 5 encompasses approximately 420 acres and contains commercial, industrial, public recreation, and public facility uses. The landside portions of the project site are currently designated in the PMP for commercial recreation, park/plaza, street, and marine-related uses, while the waterside portions of the site are designated for recreational boat berthing and open bay, as shown on Figure 2-3.

2.3.2.2 City of National City

The landside portions of the project site that currently fall within the existing jurisdiction of the City, as shown on Figure 2-2, are currently designated in the City's General Plan for Industrial, Minor Mixed Use, and HDSAP. Approximately 24 acres of the project site (the City Program – Development Component, as well as most of the Bayshore Bikeway Component, and some of the Pasha Road Closures Component and GB Capital Component) fall within the City's LCP. The existing LCP land use designation for most of the City Program – Development Component and the portion of the GB Capital Component east of the mean high tide line is Tourist Commercial/Recreation, which is intended to meet specific recreational market demand and provide an attraction for secondary uses, overnight uses, and boating. A portion of the City Program – Development Component is designated Industrial. The City's General Plan also designates the area south of Bay Marina Drive as part of the HDSAP, which was approved by the City and California Coastal Commission in 1998 to be consistent with and carry out the requirements of the City's certified LCP. The HDSAP is a resource-based environmental implementation plan that establishes site-specific conservation and development standards within the portion of the city's coastal zone south of Bay Marina Drive. Land within the HDSAP is currently designated Tourist Commercial, Medium Manufacturing, Open Space, and Open Space Reserve.

Table 2-1 provides the acreages of existing land uses within the project site. Allowable uses within the existing land use designations are discussed below.

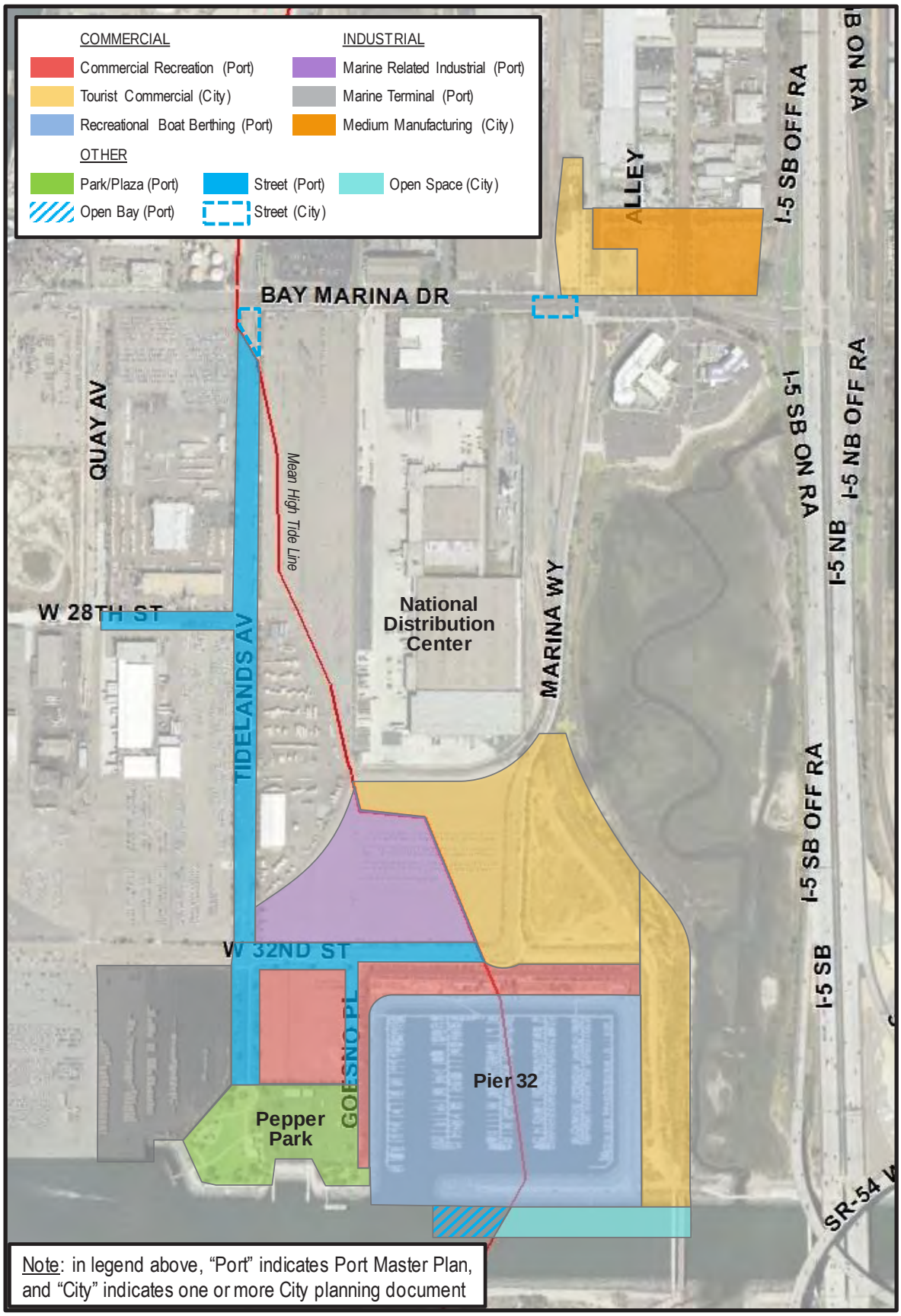

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Figure 2-4
Existing Land Use Designations
National City Bayfront Projects & Plan Amendments EIR

Table 2-1. Existing Land Use Designations within the Project Site

Land/Water Use Designation	PMP (approximate acres)	HDSAP (approximate acres)	Total (approximate acres)
Balanced Plan[1]			
Marine Terminal	7.4	--	7.4
Marine-Related Industrial	6.9	--	6.9
Commercial Recreation	7.4		7.4
Tourist Commercial		12.7	12.7
Recreational Boat Berthing	16.9	--	16.9
Park/Plaza	5.2	--	5.2
Street	2.5	--	2.5
Subtotal	*47.1*	*12.7*	*59.8*
GB Capital Component			
Commercial Recreation	7.4	--	7.4
Tourist Commercial	--	8.7	8.7
Street	2.2	--	2.2
Recreational Boat Berthing	16.9	--	16.9
Open Bay	0.8	--	0.8
Open Space	--	1.3	1.3
Marine Related Industrial	1.9	--	1.9
Subtotal	*29.2*	*10.0*	*39.2*
Pasha Road Closures Component			
Street	5.7	0.3	6.0
Subtotal	*5.7*	*0.3*	*6.0*
Bayshore Bikeway Component[2]			
Route 1[3]	--	2.3	2.3
Route 2	--	2.2	2.2
Route 3	--	2.2	2.2
City Program – Development Component			
Tourist Commercial	--	2.1	2.1
Medium Manufacturing	--	4.1	4.1
Street	--	0.4	0.4
Subtotal	--	*6.6*	*6.6*
Total[4]	**53.5**	**23.1**	**76.6**

[1] The Pasha Rail Improvement Component would be located within a portion of this land use.
[2] Acreage calculations for the Bayshore Bikeway Component assume a 12-foot-wide right-of-way (as stipulated by the San Diego Association of Governments Regional Bike Plan for a Class I bike path) and an approximate length of 8,152.3 feet for Route 1, 7,887.4 feet for Route 2, and 7,929.0 feet for Route 3.
[3] For acreage estimates, the City's total acreage conservatively assumes construction of Route 1, which is the longest bike path.
[4] Because the landside portion of the GB Capital Component is similar to the Commercial Recreation area of the Balanced Plan, the general acreage of the landside GB Capital Component is already in the "Total" project site acreage, and this "Total" project site acreage therefore only includes the Open Bay and Open Space water use designation acreages because they are not part of the Balanced Plan footprint.

2.3.3 Existing Site Conditions

The project site totals approximately 77 acres, consisting of approximately 58 landside acres and 19 waterside acres; the area within which the various project components are located is generally bounded by Civic Center Drive on the north (the farthest extent of the proposed bike paths), Sweetwater Channel on the south, I-5 on the east, and Tidelands Avenue and the NCMT on the west. Please note that additional site-specific details for each project component are provided in each section of Chapter 4, *Environmental Analysis*, where these details are pertinent to the analysis of the specific environmental resource.

2.3.3.1 Balanced Plan

The Balanced Plan project area is generally bounded by the National Distribution Center to the north, Sweetwater Channel to the south, Paradise Marsh to the east, and NCMT to the west. As mentioned previously, the GB Capital Component is proposed to be located generally on the area identified for Commercial Recreation land use in the Balanced Plan, and the Pasha Rail Improvement Component is proposed to be within the area identified for Marine-Related Industrial land use in the Balanced Plan.

Pepper Park, which is included in the Balanced Plan project area, is a publicly accessible park at the southern terminus of Tidelands Avenue, to the west of the marina. Pepper Park provides picnic areas, children's play equipment, a boat launch, walking paths, a fishing pier, and a parking lot. The National City Aquatic Center is also within Pepper Park. The aquatic center provides recreational access to the Bay for activities such as kayaking and rowing, and also provides environmental education courses.

Finally, the westernmost parcel within the Balanced Plan area (west of Pepper Park) includes the first point of rest area for the marine terminal. The first point of rest is an unleased area of the marine terminal. Similar to other parcels within and adjacent to the Balanced Plan area, this parcel is currently used for open storage area associated with marine terminal operations.

GB Capital Component

The waterside portion of the GB Capital Component includes the gangway and docks of the existing Pier 32 Marina, which contains approximately 250 boat slips. A rip-rap shoreline separates the marina from the landside portions of the GB Capital Component, and a narrow jetty (approximately 714 feet long) extends from the southeastern corner of the marina, enclosing most of the marina off from Sweetwater Channel. There is a narrow road leading to the jetty on the strip of land to the east of the marina. In addition, the GB Capital Component would involve improvements within Sweetwater Channel, which is currently an open water channel. West of the GB Capital Component, the north side of Sweetwater Channel includes berthing space adjacent to the NCMT, as well as Pepper Park, which includes a public fishing pier, a boat launch facility, and a dock for recreational water sports associated with the aquatic center. On the southern side of Sweetwater Channel, the channel abuts the natural, undeveloped shoreline of the San Diego Bay National Wildlife Refuge. A line of buoys extends across Sweetwater Channel near the western end of the jetty across to the wildlife refuge, to prevent watercraft from traveling farther east within the channel. In addition, two bridges—one containing railroad tracks, the other for pedestrian/bicycle use—cross the channel just east of the marina. The bridges are of the same height, run parallel to each other a few feet

apart, and are only elevated a few feet above the channel, which allows only small watercraft (kayaks, canoes) to travel beneath.

To the north of the marina, on the landside portion of the marina (south of 32nd Street), several buildings provide marina-related services: administrative offices, boater services (laundry, boat maintenance services, showers/bathrooms, storage, etc.), and a restaurant. These parcels also accommodate outdoor amenities for marina users, including a swimming pool, putting green, and barbecue areas. In addition, a public walking/biking path is south of 32nd Street. Parking lots are south of 32nd Street, and along the western side of the marina, generally north/northeast of the aquatic center. Parcels within the northeastern portion of the Balanced Plan area, east of Marina Way, include undeveloped open space west and upslope of Paradise Marsh. The parcels west of Marina Way and north of 32nd Street provide open storage lots for marine terminal operations (primarily for imported cars that arrive at NCMT before being transported to other destinations), as does the parcel to the southeast of the 32nd Street and Tidelands Avenue intersection.

Pasha Rail Improvement Component

The proposed alignment for the Pasha Rail Improvement Component is contained within the Balanced Plan area and would traverse the lot bounded on the north and northwest by existing railroad tracks (BNSF tracks and the NCMT loop track) and the National Distribution Center, on the east by Marina Way, on the south by 32nd Street, and on the west by Tidelands Avenue. This lot currently contains open storage space for marine terminal operations associated with the NCMT.

Pasha Road Closures Component

The Pasha Road Closures Component would occur on Tidelands Avenue between Bay Marina Drive on the north and 32nd Street on the south, as well as West 28th Street between Quay Avenue and Tidelands Avenue. Tidelands Avenue is an existing vehicular route that is approximately 70 feet wide and includes two vehicle travel lanes (one for each direction of travel), striped bike lanes (one in each direction of travel), on-street parking on both sides of the roadway, and a sidewalk along the eastern side of the roadway. Railroad crossing gates exist approximately 80 feet north of the intersection with 32nd Street where the NCMT balloon/loop track crosses Tidelands Avenue.

West 28th Street is a two-lane vehicular route that is approximately 48 feet wide and includes two travel lanes, one in each direction. On-street parking is available along the roadway, but there are no sidewalks.

2.3.3.2 Bayshore Bikeway Component

The proposed bike routes are proposed primarily along existing roadways, including Marina Way, Bay Marina Drive, Cleveland Avenue, McKinley Avenue, West 19th Street, Tidelands Avenue, West 14th Street, and Civic Center Drive. A portion of Bike Route 3 is proposed generally west of the abandoned rail line west of Paradise Marsh, and a portion of Bike Route 1 is proposed to be located on the abandoned rail line. The bike routes would travel through uses that include light industrial/ warehouses, commercial, and some residential areas as well as some natural, undeveloped land adjacent to Paradise Marsh.

2.3.3.3 City Program – Development Component

The City Program – Development Component project area is roughly bounded on the north by West 23rd Street (with the exception of the northwesternmost area of the City Program – Development Component, which extends approximately 200 feet north of West 23rd Street), Bay Marina Drive to the south, McKinley Avenue to the east, and BNSF railroad tracks to the west. Parcels 1 through 6, as shown on Figure 3-3, comprise undeveloped lots that have been previously developed and show evidence of previous grading and the presence of concrete remnants. Parcel 7 contains the historic National City Santa Fe Depot, which includes the historic train station as well as a yard with several historic rail cars on display. This project component also includes the project area along the existing four-lane roadway, Bay Marina Drive west of Marina Way.

Table 2-2 summarizes the existing landside and waterside conditions on the project site. Existing utilities, including electrical lines, wastewater and water pipes, storm drain facilities, and sewer mains, are discussed in Section 4.14, *Utilities and Service Systems*. Existing storm drains are also discussed in Section 4.8, *Hydrology and Water Quality*.

Table 2-2. Existing Site Conditions

Portion of Project Site	Area	Description of Existing Uses
Landside	57.9 acres	Pier 32 Marina (marina administrative offices, boater amenities, restaurant, pool, putting green, walkways, etc.), vacant paved lots (City Program), open storage areas associated with marine terminal operations (commonly referred to as Pasha's Lots J and K), undeveloped open space, the National City Aquatic Center, the historic first point of rest area for the marine terminal, and Pepper Park.
Waterside	19.0 acres	Marina with 250 boat slips, docks, and a gangway. Buoys are located across Sweetwater Channel, south of the jetty.

2.4 Surrounding Conditions

The project site borders Sweetwater Channel and the NCMT, which is primarily a working waterfront area. As such, the majority of the surrounding uses are industrial. Land use designations in the project vicinity primarily include marine terminal or marine-related industrial. Land within the City's jurisdiction in the vicinity of the project site is zoned Tourist Commercial, Medium Manufacturing, Open Space, and Open Space Reserve (for the Paradise Marsh area).

Land uses generally north of the project site include open storage lots (associated with marine terminal operations), warehouse and cold storage buildings, trucking companies, building material suppliers (such as lumber and metal works), and cement terminals.

A portion of the existing Bayshore Bikeway route is immediately adjacent to the project site to the east, with the Paradise Marsh to the east of the bike route and I-5 just beyond that (approximately 590 feet to the east of the project site). A portion of the existing Bayshore Bikeway route is also north of the marina parking lot, at the southern terminus of Marina Way and the eastern terminus of 32nd Street.

Sweetwater Channel borders the project area to the south, with the natural, undeveloped open space of the San Diego Bay National Wildlife Refuge on the south side of the narrow (approximately 300-foot-wide) channel. Finally, more open storage lots (associated with marine terminal operations) are to the west of the project site, on the NCMT. Commercial land uses to the south of the City Program – Development Component include the Best Western Plus Marina Gateway Hotel and a restaurant (formerly Goodies Bar & Grill).

2.5 Existing Operational Characteristics

2.5.1 Pier 32 Marina

GB Capital Holdings, a District tenant, has managed Pier 32 Marina since its opening in 2008. Coastal Development Permit CDP-2006-02 was approved on April 4, 2006, by the District, and construction of Pier 32 Marina began the same year. The site consists of approximately 21 acres of land and water area, which accommodates the existing marina buildings, parking, a recreational boat marina, a freestanding locker/shower facility, restaurant, and site landscape improvements.

2.5.2 Pepper Park

Pepper Park is an approximately 5.2-acre park off Goesno Place (the existing roadway immediately west of Pier 32 Marina) and Tidelands Avenue, south of 32nd Street. The park provides picnic areas, playground equipment, walking paths, a fishing pier, a boat launch area, a parking lot, and the National City Aquatic Center. As noted above, expansion of Pepper Park is part of the Balanced Plan and would increase public access and recreational opportunities.

2.5.3 Pasha Operations

Pasha's operations involve vehicle throughput and non-vehicle throughput such as containers; general cargo and breakbulk, including forest goods; machinery; manufactured products; metals; recreational trailers; and vessels (e.g., yachts). Although Pasha's operations at NCMT involve both vehicle and non-vehicle throughput, the vast majority of the operations involve vehicle throughput, as shown in Table 2-3 for years 2013 through 2017.

Table 2-3. Pasha Vehicle and Non-Vehicle Throughput from 2013–2017

Year	Vehicles (units)	Containers (metric tons)	Breakbulk (metric tons)
2013	361,372	15,484	37,295
2014	401,180	18,916	20,916
2015	425,890	6,928	78,966
2016	451,612	370	6,265
2017	371,827	105	41,812
Average 2013–2017	402,376	8,361	37,051

Source: Pasha pers. comm.

As shown in Table 2-3, the amount of non-vehicle throughput is a relatively small share of Pasha's overall operations.

As noted in Table 2-3, in the most recent complete year (2017), Pasha processed 371,827 vehicles, whereas the year before that (2016), Pasha processed 451,612 vehicles. Given this fluctuation, District staff concluded that a baseline that accounts for vehicle throughput over a 5-year average provides a more accurate measure of the current/baseline level of vehicle throughput against which to evaluate the project impacts. Therefore, the baseline for this analysis is the average annual vehicle throughput from 2013 to 2017 (i.e., the average of the 5 years of vehicle throughput that occurred prior to issuance of the NOP). Additionally, the total amount of acreage used has varied annually since 2013, with an average of 180 acres used from 2013 to 2017, as shown in Table 2-4.

Table 2-4. Pasha Annual Acreage Used 2013–2017

Year	Acreage Used[1]
2013	158
2014	170
2015	191
2016	191
2017	191
Average 2013–2017	**180**

Source: District Maritime Division, November 2018.
[1] Approximate net acreage available for auto storage. Acreage with buildings or other uses (i.e., maintenance, landscaping) is not included in this total.

Within the project site, Pasha currently handles vehicle throughput on Lot J (south of 32nd Street, north of the Pepper Park parking lot) and Lot K (north of 32nd Street, between Tidelands Avenue and Marina Way), the locations of which are shown on Figure 3-20. Lot J and Lot K are approximately 3.35 acres and 11.37 acres, respectively, and together total approximately 14.72 acres.

Based on the same methodology for calculating "existing per acre annual vehicle throughput" that was used in the EIR for the National City Marine Terminal Tank Farm Paving and Street Closures Project and Port Master Plan Amendment (District 2016), the existing annual throughput is 2,235 vehicles per acre,[1] which equates to a total of approximately 32,899 vehicles per year for Lots J and K collectively, as shown in Table 2-5.

Table 2-5. Existing Vehicle Throughput on Existing Lot J and Lot K

Site	Existing Acreage	Existing Throughput/Existing Baseline (2,235 vehicles/acre/year)
Lot J	3.35	7,487
Lot K	11.37	25,412
Total	14.72	32,899

The criteria used to determine this "existing" per acre per year calculation includes the total number of vehicles processed in a given year and the total acreage used to process that quantity of vehicles.

[1] 402,376 vehicles ÷ 180 acres = 2,235 vehicles/acre; 2,235 vehicles/acre is the "existing per acre baseline"; 14.72 acres x 2,235 vehicles/acre = 32,899 vehicles/year.

Vehicular throughput is a function of land availability, vehicle dwell time, accessibility to empty railcars, and market demand for vehicles (which can also influence the former two factors). Due to those limiting factors, the annual vehicle throughput at the NCMT has varied since 2013, as shown in Table 2-3.

2.5.4 Rail Operations in National City

Existing train activities on and around the NCMT are constrained by the freight train operating windows and limitations on the length of trains. Moreover, the frequent insufficient supply of empty railcars, as well as related storage for the empty railcars, further constrains train operations, as discussed below.

Trains that service the NCMT and surrounding industrial properties in National City are owned and operated by BNSF. Empty railcars are currently stored at the BNSF National City Yard, the Cesar Chavez BNSF Yard, and the on-terminal rail ladder.[2] The BNSF National City Yard, which is owned by BNSF, currently serves several industrial customers in the area, including Pasha. Improvements to the BNSF National City Yard were completed in December 2017, by BNSF, as the applicant, and the Federal Railroad Administration, as the federal agency with jurisdiction, and these improvements to the BNSF National City Yard are a cumulative project in this EIR.

The movement of railcars outside of the NCMT is dictated by rail labor union contracts. For example, movement of railcars north of the switch location near the intersection of Civic Center Drive/Harbor Drive must be done by BNSF. In addition, although BNSF can store empty railcars at the BNSF National City Yard, moving those empty railcars to the on-terminal rail ladder requires a BNSF crew to move the railcar to the switch location first. Once south and west of the switch, Pasha's crew can move the railcars. Other than when a train is being moved on or off the terminal, BNSF rail crews are not available, which creates an operational constraint.

Independent of Pasha, BNSF has a vehicle transport business that uses some space in National City on BNSF-owned properties east of Tidelands Avenue, north and south of Bay Marina Drive. The BNSF operation consists of an inbound/southbound train that uses a mix of bi-level and tri-level railcars, which are loaded with vehicles for BNSF customers, not Pasha customers. Those railcars are unloaded in National City, on BNSF-owned property, and become the empty railcars that Pasha may use for its outbound/northbound rail operations. The BNSF inbound/southbound operation results in approximately 12–15 tri-level railcars per week that are not used by Pasha and, as a result, sit empty on the rail ladder where Pasha builds/loads outbound trains. Approximately once per week, BNSF pulls the empty tri-level railcars out of the area.

Bi-level railcars can fit taller/higher-profile vehicles, such as sport utility vehicles, which cannot fit on the tri-level railcars. A bi-level railcar can fit 10 vehicles. A tri-level railcar can fit 15 vehicles. The use of bi-level railcars versus tri-level railcars is dependent on the type of vehicle that will be placed on the railcar. Based on historical data (between 2013 and 2017), approximately 40% of the vehicles that arrived at the NCMT by vessel were distributed by rail, whereas the remaining 60% were distributed by truck.[3] High-profile (i.e., taller) vehicles, such as sport utility vehicles, are the

[2] A rail ladder is a staging area with sufficient rail capacity to build and spot trains.

[3] The percentage split for transport by rail versus transport by truck is dependent on the type of vehicle/Pasha customer (e.g., Kia or Volkswagen). For example, Kia was a Pasha customer through early 2017, and Kia required that Pasha transport all Kia vehicles on rail. The split can vary from year to year, depending on the customer mix and their respective business requirements.

bulk of Pasha's rail transport; these vehicles require bi-level railcars and do not fit in tri-level railcars.

The operation of the freight rail that serves the NCMT and the District's Tenth Avenue Marine Terminal is limited by the capacity and allowable operating windows in San Diego County. Existing rail operations in the county, including an explanation of the constraints, are summarized below and discussed in more detail in Appendix C.

In the San Diego area, BNSF typically operates 7 days per week, with auto-carrying trains typically operating 6 days per week, Monday through Saturday. BNSF's rail freight operations include auto-carrying trains, which are limited by capacity[4] and the allowable operating windows within San Diego County, as well as the operating windows within the adjacent counties of Los Angeles and Riverside. Specifically, passenger trains (e.g., Coaster, Amtrak, Metrolink) on the San Diego rail network have priority use of the rail lines within certain timeframes each day (i.e., between 5:30 a.m. and 8:30 a.m. and 3:00 p.m. and 7:00 p.m.).[5] Freight rail (e.g., BNSF-operated trains) is not allowed to operate on the rail lines during these timeframes. As such, the effective operating windows for outbound and inbound freight trains in the San Diego area are as follows:

- Outbound (i.e., northbound) trains may depart San Diego between 7:00 p.m. and 2:00 a.m. or between 9:00 a.m. and 11:30 a.m.
- Inbound (i.e., southbound) trains to San Diego may enter the rail corridor at Atwood between 9:00 p.m. and 2:00 a.m. or between 9:00 a.m. and 11:30 a.m.

When the maximum train length is taken into account, the freight rail operating windows permit up to four daily round trips (i.e., eight separate train slots) on the San Diego rail network. However, currently there are only two regularly scheduled round-trip trains (i.e., four separate train trips):

- One round trip of a mixed-freight manifest train (i.e., two separate train trips) that arrives and/or departs between 7:00 p.m. and 2:00 a.m.
- One round trip of a vehicle train (i.e., two separate train trips) that arrives and/or departs between 7:00 p.m. and 2:00 a.m.

The two additional round-trip freight train slots (i.e., four separate train slots) are used infrequently and generally only as a substitute if a freight train was unable to make one of the regularly scheduled slots described previously. These slots are allocated as follows:

- One round-trip train slot (two separate train slots) between 7:00 p.m. and 2:00 a.m.
- One round-trip train slot (two additional train slots) between 9:00 a.m. and 11:30 a.m.

Consequently, four of the eight available train slots are typically used by one round trip of a mixed freight manifest train and one round trip of a vehicle train. For example, there have been instances

[4] As described further in Appendix C, capacity comes in the form of line capacity (the physical number of trains that can fit on a rail corridor per day), train capacity (the physical limitations on train operations due to train length and/or train tonnage), spot capacity (the ultimate number of railcars that a rail facility can accommodate), and space/acreage capacity for unloaded cargo (e.g., terminal, yard, storage). Train length is limited based on current operating conditions on the existing San Diego rail network because much of the corridor is single track, not double track; the latter would allow trains to pass one other instead of being stopped on a rail siding waiting for the other train to pass by on the single-track.

[5] Freight rail within the Los Angeles and Riverside area rail network is prohibited from operating between 4:00 a.m. and 9:00 a.m. and between 5:00 p.m. and 9:00 p.m.

where the regularly scheduled mixed freight or vehicle trains have missed their usual nighttime slot (7:00 p.m. to 2:00 a.m.) and BNSF dispatches that train to depart San Diego within the morning slot (9:00 a.m. and 11:30 a.m.), resulting in delays. Figure 2-4 graphically depicts the time constraints associated with freight rail in the downtown San Diego area.

2.5.5 Bayshore Bikeway

The Bayshore Bikeway is a part of the larger San Diego Association of Governments Regional Bike Plan, which outlines a range of recommendations including bicycle infrastructure improvements, bicycle-related programs, and policy and design guidelines to facilitate regional goals to increase the number of people who bike and the frequency of bicycle trips for all purposes, improving safety for bicyclists, and increasing public awareness and support for bicycling in the San Diego region. The Bayshore Bikeway is a regional bicycle facility planned to extend 24 miles around San Diego Bay, providing scenic bicycle paths intended to connect residents and visitors to tourist destinations and major bayfront employers. The Bayshore Bikeway Plan, adopted in 2006, breaks the Bikeway route down into 10 numbered segments that travel clockwise around San Diego Bay beginning at Broadway Pier and ending at Coronado Landing. The existing Segment 5 of the Bayshore Bikeway, which is mostly an interim segment until the proposed Bayshore Bikeway Component is implemented, begins as the Bikeway turns west onto Civic Center Drive and extends south onto Tidelands Avenue to 32nd Street where it meets an existing Class I segment of the Bikeway (see Figure 3-21). Although the formal Bayshore Bikeway route described in the Bayshore Bikeway Plan follows Tidelands Avenue, many cyclists use Cleveland Avenue, which is parallel to Tidelands Avenue but offers a more direct route between Harbor Drive and the Gordy Shields Bridge path, a 1-mile bridge and bike path at the State Route 54/I-5 interchange that allows bikers to cross the Sweetwater River connecting National City and Chula Vista (SANDAG 2006).

Typical Rail Operations within San Diego Subdivision South of Santa Fe Depot

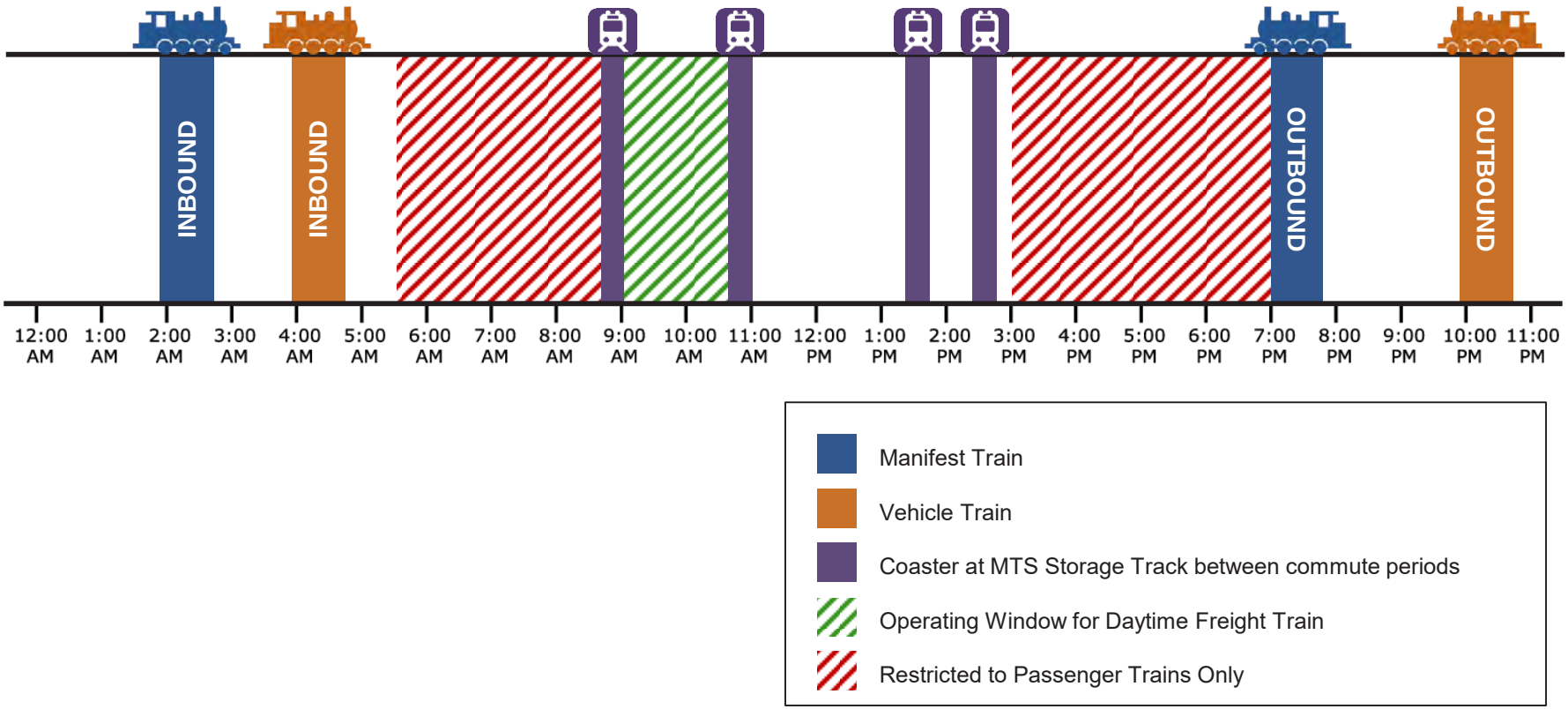

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Figure 2-4
Time Constraints for Freight Rail in San Diego County
National City Bayfront Projects & Plan Amendments EIR

Under the proposed project, the Pasha Road Closures Component (i.e., closure of Tidelands Avenue between Bay Marina Drive and 32nd Street, as well as West 28th Street between Tidelands Avenue and Quay Avenue) would conflict with the planned Segment 5 of the Bayshore Bikeway Plan. Therefore, as part of the proposed project, alternate routes for Segment 5 have been identified.

2.5.6 City Program – Development Component

The City Program – Development Component is on seven City-owned parcels adjacent to and north of Bay Marina Drive, between the I-5 southbound off-ramp to the east and the BNSF railroad tracks to the west. Parcels 1 through 6 make up two large, vacant lots on either side of Cleveland Avenue, north of Bay Marina Drive, and were previously developed with primarily commercial or industrial uses, including a former olive oil works, a flour and cereal warehouse, and a mattress stuffing factory. Historical aerial photographs from the 1950s indicated that these buildings were present into the 1960s (NETR 2017). All improvements were removed by 2009 in preparation for redevelopment of the site. Parcel 7, the westernmost parcel, has contained the National City Santa Fe Depot since its original construction in 1899. The National City Santa Fe Depot was listed on the National Register of Historic Places in 1996 and was the train station and general business office for the railroad. In 1998, the depot underwent a renovation, and now operates as a museum that is open to the public on Saturdays and Sundays (San Diego Electric Railway Association 2021).

Chapter 3
Project Description

3.1 Introduction

The District, City, GB Capital, and Pasha, as co-applicants and project proponents, are each proposing components that constitute the project. The project would include the following main components (see Figure 3-1) as detailed in Section 3.4:

- Changes to land and water use designations in the District's PMP (Balanced Plan)
- Construction and operation of a recreational vehicle (RV) park, modular cabins, dry boat storage, up to four hotels, and an expanded marina primarily within the District's jurisdiction (GB Capital Component)
- Construction and operation of a rail connector track and storage track within the District's jurisdiction (Pasha Rail Improvement Component)
- Closure of Tidelands Avenue between Bay Marina Drive and 32nd Street as well as West 28th Street between Tidelands Avenue and Quay Avenue within the District's and City's jurisdictions and redesignation of the area from Street to Marine-Related Industrial in the District's PMP (Pasha Road Closures Component)
- Construction and operation of Segment 5 of the Bayshore Bikeway within the District's and City's jurisdictions (Bayshore Bikeway Component)
- Construction and operation of hotel, restaurant, retail, and/or a combination of tourist-/visitor-serving commercial development north of Bay Marina Drive and the potential closure or narrowing of Bay Marina Drive west of Marina Way to through vehicular traffic within the City's jurisdiction (City Program – Development Component)
- PMPA to clarify jurisdictional land use authority, redesignate land uses, and balance commercial and maritime uses (PMPA Component)
- Amendments to the City's LCP, General Plan, Harbor District Specific Area Plan (HDSAP), Land Use Code (LUC), and Bicycle Master Plan that would include changes to jurisdictional boundaries; changes to subarea boundaries; and changes to land use, specific plan, and zone designations (City Program – Plan Amendments Component)

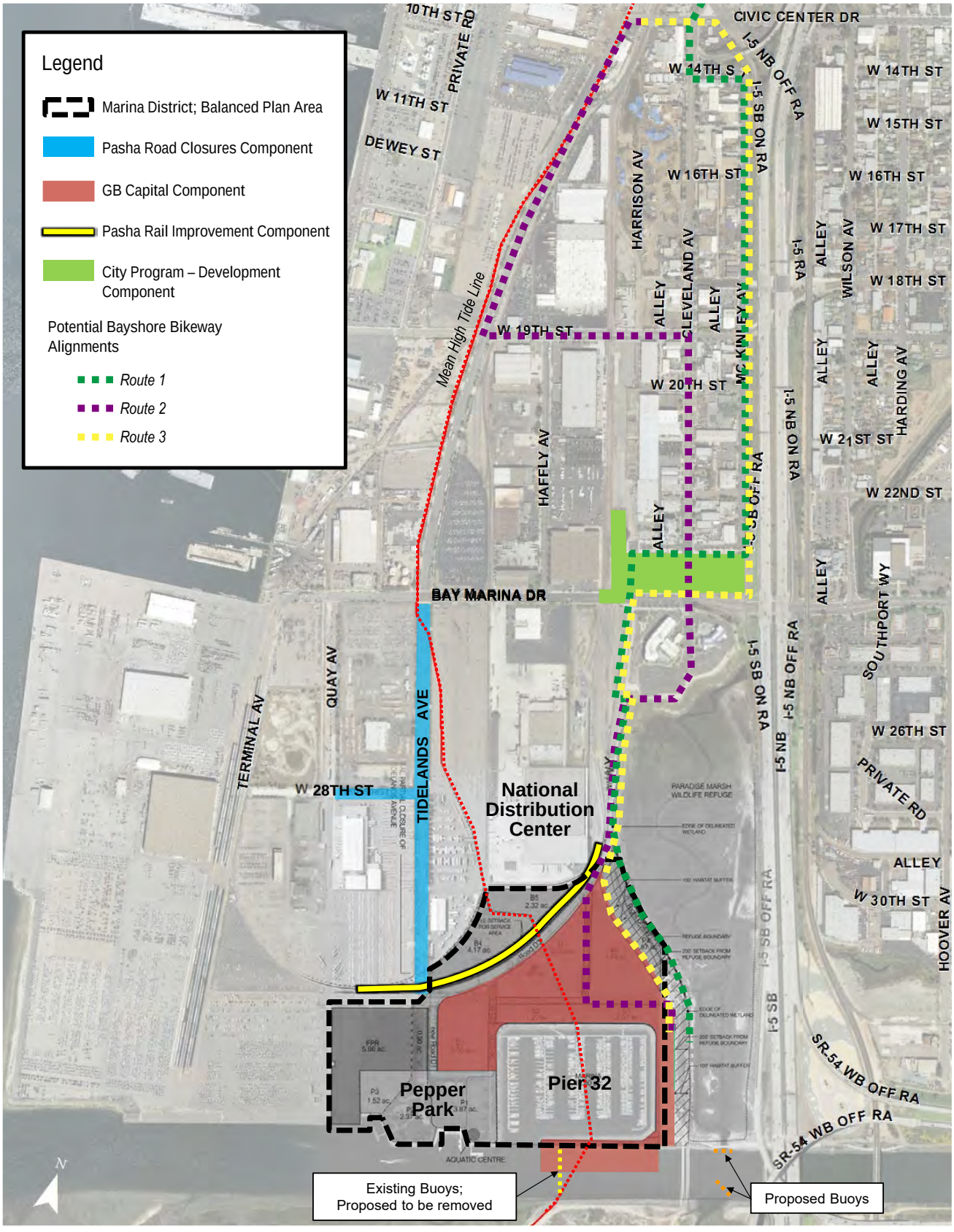

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Figure 3-1
Project Components
National City Bayfront Projects & Plan Amendments EIR

The proposed PMPA and corresponding LCPA to clarify jurisdictional land use authority, redesignate land uses, and balance commercial and maritime uses is herein referred to as the "Balanced Plan." The Balanced Plan was created in response to a robust public planning process to identify a reconfiguration of land uses to optimize recreational, maritime, and commercial uses within the National City Marina District, which is the area generally north of Sweetwater Channel and west of the Sweetwater National Wildlife Refuge (Paradise Marsh). Implementation of the Balanced Plan would clearly delineate maritime land use boundaries from potential recreational and commercial land use boundaries while allowing operational efficiencies to improve at the National City Marine Terminal (NCMT) and maintaining sensitivity to the function and sustainability of the Paradise Marsh. The Balanced Plan proposes to accomplish this through the reconfiguration of roadways, a new rail connection, reconfiguration of commercial recreation and maritime land uses, the expansion of Pepper Park, and preservation of habitat buffers for the adjacent wildlife refuge.

The Balanced Plan, the majority of the GB Capital Component, the Pasha Rail Improvement Component, the majority of the Pasha Road Closures Component, and a portion of the Bayshore Bikeway Component are all within the proposed District's jurisdictional boundaries (see Figure 3-2). Consequently, changes proposed by the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and a portion of the Bayshore Bikeway Component would require an amendment to the PMP, collectively "PMPA Component," as follows:

- Incorporate the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, and the alignment of the Bayshore Bikeway into the PMP.
- Remove the Street designation for the street closures associated with the Pasha Road Closures Component and redesignate these areas (with the exception of the area within the City's jurisdiction) as Marine-Related Industrial.
- Add approximately 12.4 acres of Balanced Plan, located mostly on the GB Capital site east of the mean high tide line and owned in fee by the District (currently identified in the City's HDSAP), to the PMP.

Most of the proposed Bayshore Bikeway Component and the entire proposed City Program – Development Component are within the City's jurisdiction. Consequently, the City Program – Plan Amendments Component would be as follows:

- Remove approximately 12.4 acres of the Balanced Plan, located mostly on the GB Capital site east of the mean high tide line and owned in fee by the District, from the City's General Plan, LCP, HDSAP, and LUC to reflect changes in land use and jurisdictional authority.
- Incorporate seven parcels[1] (see Figure 3-3) north of Bay Marina Drive and adjacent rights-of-way (ROWs) into the HDSAP.
- Amend the Bicycle Master Plan to reflect the realignment of the Bayshore Bikeway.

1 Assessor's Parcel Number/Street Address: 5591170400/801 Bay Marina Drive (City Parcel 1); 5591170500/0 Cleveland Avenue (City Parcel 2); 5591170600/2300 Cleveland Avenue (City Parcel 3); 5591170700/720 W. 23rd Street (City Parcel 4); 5591171200/830 W. 23rd Street (City Parcel 5); 5591180200/900 W. 23rd Street (City Parcel 6); 7602357700/835 W. 24th Street (City Parcel 7). Each of these parcels has been given a label of 1 to 7 to make identification easier; see Figure 3-3 for location of each of the seven parcels.



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Figure 3-2
Proposed Jurisdiction Map
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Figure 3-3
National City Parcel Map
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Future development within the City's jurisdiction may require Coastal Development Permits (CDPs) and other development permits such as planned development permits, conditional use permits, subdivision/parcel maps, street vacations, and other discretionary or ministerial entitlements to implement the project.

Future development within the District's jurisdiction may require CDPs and approval of various real estate agreements (e.g., new lease, lease amendment, tideland use and occupancy permit, easement) to implement the project.

This chapter's contents include the project need and purpose, project objectives, project description, and a list of project approvals. A detailed description of the project site location and existing conditions is provided in Chapter 2, *Environmental Setting*, which includes a location map and the existing land use designations, provided as Figures 2-1 and 2-3, respectively. Figure 2-2 depicts the existing jurisdictions of the District and the City.

3.2 Project Need and Purpose

The project area is generally considered underutilized, particularly when proximity to the waterfront is taken into consideration. Discussions among the District, City, and stakeholders have highlighted a desire to create more recreation and visitor-serving commercial space within the project site in an effort to draw more visitors to the waterfront while maintaining the productivity of the maritime industrial areas at and adjacent to the NCMT.

The proposed PMPA, LCPA, other plan and zoning amendments, and related proposed development in the National City bayfront area are needed to support implementation of the project objectives (Section 3.3). The project's purpose and need were developed in response to the 2016 robust public planning process associated with the formation of the Balanced Plan, and preceding and subsequent discussions at Board of Port Commissioners (Board) meetings and City Council meetings that had the following common goals for the National City bayfront area: (1) clearly delineate maritime (e.g., Marine-Related Industrial or Marine Terminal land use designations) land use boundaries from potential recreational and commercial land use boundaries, (2) increase public access and recreational opportunities, (3) optimize maritime uses and efficiencies, and (4) increase commercial opportunities through reconfiguration of roadways and consolidating land uses. In addition, more specific Board direction for the National City Marina District was to (1) increase Pepper Park by 2–3 acres, (2) reconfigure commercial recreation and maritime land uses, and (3) preserve habitat buffers from the adjacent wildlife refuge. All the goals and Board direction have been incorporated into the Balanced Plan.

3.3 Project Objectives

To achieve the purpose and need of the proposed project, the District has identified the following objectives in coordination with the City.

1. Further activate the project site by modifying the land uses and their configurations to foster the development of high-quality commercial and recreational uses to maximize employment opportunities, maximize recreational opportunities for visitors, maximize economic

development opportunities, and improve cargo and transportation efficiencies of maritime industrial uses associated with operations at NCMT.

2. Reconfigure maritime and commercial uses to balance the anticipated future market demands for those uses, while also increasing public access on the project site.
3. Implement cohesive commercial development that is designed to enhance enjoyment of the National City Marina District and surrounding city area, contribute to the area's economic vitality, and generate economic revenue for the City including through increased Transient Occupancy Tax.
4. Increase park space and recreational opportunities to enhance the waterfront experience for all visitors and maximize opportunities to attract tourism to the city.
5. Reduce unnecessary train movements and reduce the required effort associated with building daily trains by improving near-terminal rail storage capacity and creating a more direct connection between the BNSF Railway National City Yard and the NCMT.
6. Offset the loss of existing land used for maritime operations, as proposed in the Balanced Plan, by closing internal District streets (i.e., Tidelands Avenue and West 28th Street) adjacent to existing maritime operations to create contiguous space for maritime operations and configuring cargo operations at and adjacent to the NCMT to create cargo-handling efficiencies to reduce cargo movements.
7. Incorporate District properties into the PMP that are not currently regulated by the PMP to ensure consistency with the California Coastal Act, Public Trust Doctrine, and Port Act.
8. Be consistent with the City's environmental policies and the District's Climate Action Plan, Clean Air Program, and Jurisdictional Runoff Management Program to ensure that the proposed project does not adversely affect the District's or City's ability to attain their respective long-range environmental and sustainability goals.
9. Expand aquaculture potential on District tidelands.
10. Incorporate a land use pattern for the National City Marina District into the PMP that establishes habitat buffers and implements operational features to avoid land use and operational inconsistencies between commercial, recreational, open space, and maritime uses.
11. Integrate National City art, culture, and history into the development of the proposed project.
12. Increase the connectivity of the project area to the surrounding area and facilitate increased pedestrian activity and enjoyment of San Diego Bay for visitors.

3.4 Proposed Project Description

The project includes both landside and waterside components, as well as amendments to the District's PMP and the City's General Plan, LCP, HDSAP, LUC, and Bicycle Master Plan. Figure 3-1 illustrates the location of the various proposed project components. The following subsections describe the key project components in detail.

3.4.1 National City Marina District Balanced Land Use Plan (Balanced Plan)

The project would include adoption and implementation of the Balanced Plan, which covers a total of approximately 60.9 acres north of Sweetwater Channel in the District's jurisdiction, as shown on Figure 3-4. The Balanced Plan proposes to reconfigure areas within the National City Marina District designated within the PMP as Park/Plaza, Commercial Recreation, Marine Terminal, Marine-Related Industrial, Recreational Boat Berthing, and Street land uses. The Balanced Plan's proposed land use redesignations and associated policies proposed for the amendments to the District's PMP and the City's General Plan, LCP, HDSAP, LUC, and Bicycle Master Plan are necessary to carry out the GB Capital Component, Pasha Rail Improvement Component, and Pasha Road Closures Component, as summarized above and described in detail below. The specific transportation improvements, public access improvements, and land/water use designation changes included in the Balanced Plan and how they relate to the different project components are described below. Moreover, Coastal Act approvals, such as CDPs or Coastal Act exclusions, will need to be approved by the District to implement. Additionally, new real estate agreements or amendments to existing agreements may be needed to implement the Balanced Plan.

3.4.1.1 Transportation Improvements

The Balanced Plan consists of several proposed transportation improvements:

- Realign Marina Way from its existing alignment to form a curve that rounds out to the west when traveling toward the Balanced Plan area and connect to the proposed new park entrance (Proposed Road D1). The realigned Marina Way ROW, which is proposed to be approximately 70 feet wide, is identified as Road D3 (realigned Marina Way) on Figures 3-1 and 3-4. Utilities would be relocated from the existing Marina Way ROW to the realigned Marina Way ROW. The GB Capital Component, discussed below, proposes a configuration of the realigned Marina Way that is slightly varied from the configuration proposed under the Balanced Plan. Hence, both realignments have been analyzed.
- Close 32nd Street east of Tidelands Avenue, allowing for the realignment of Marina Way as proposed above, as shown on Figure 3-5. Potential relocation of utilities is also proposed.
- Add a connector rail track to provide an additional point of connection between the existing rail yard along the west side of Marina Way and the east side of the National Distribution Center, north of the Balanced Plan area, to the existing rail line north of the existing 32nd Street and west of Tidelands Avenue. The location of the connector rail track is shown on Figure 3-1. A storage track may also be provided north of and parallel to the connector rail track. Details regarding this improvement are provided in Section 3.4.3, *Pasha Rail Improvement Component*. The area between the realigned Marina Way/Road D3 and connector rail track would form a buffer area that could accommodate the required rail service area (i.e., 15-foot-wide setback from rail track) on the southern side of the connector rail track. The connector rail track is also part of the Pasha Rail Improvement Component discussed below.
- Close the southern half of the existing Goesno Place south of 32nd Street to vehicular traffic and relocate the northern portion of the road to the east, as shown as "new Road D2" on Figure 3-5, providing access to the GB Capital/Pier 32 Marina site from the proposed realigned Marina Way. Potential relocation of utilities is also proposed.

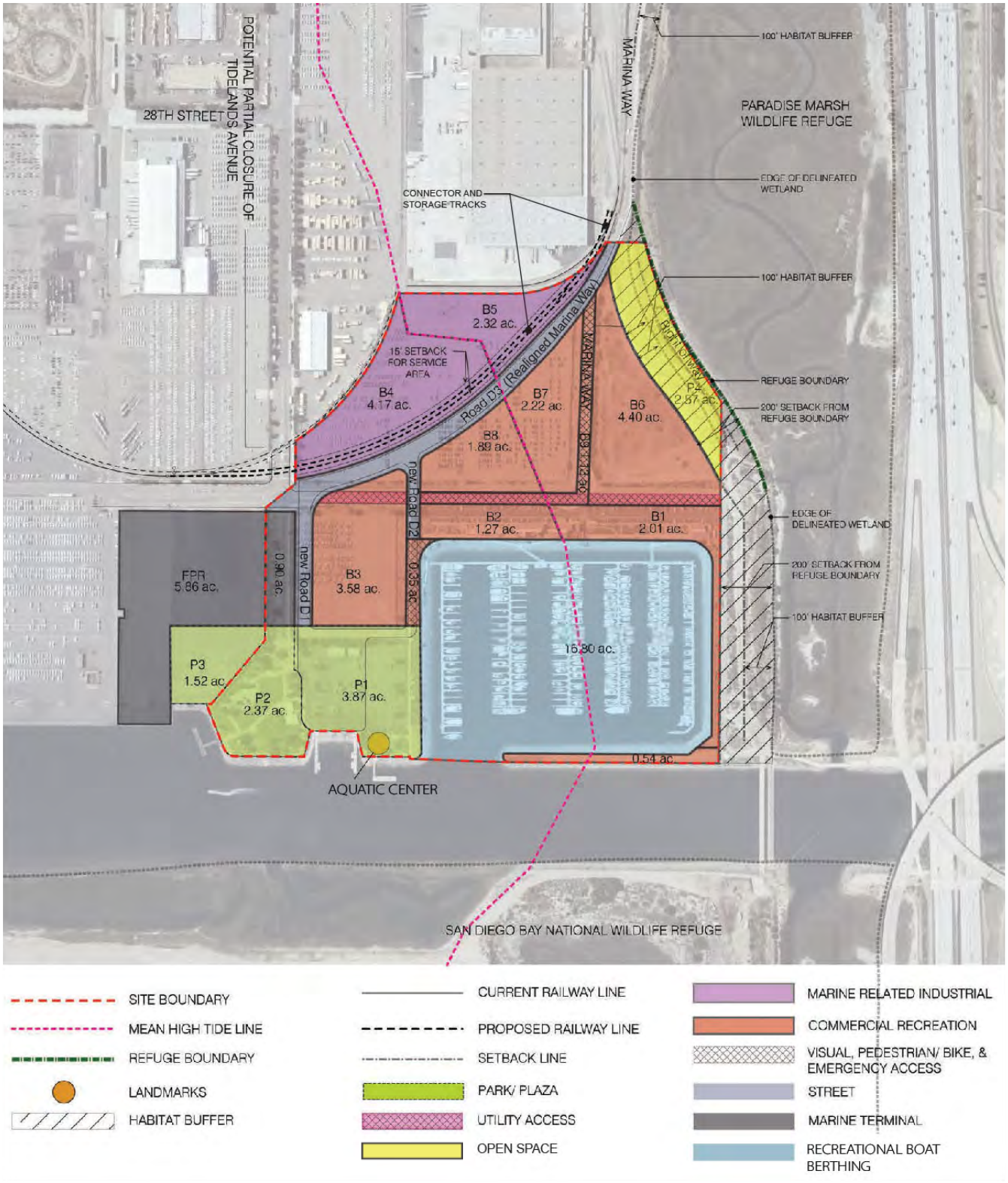

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Figure 3-4
Balanced Plan Land Use Map
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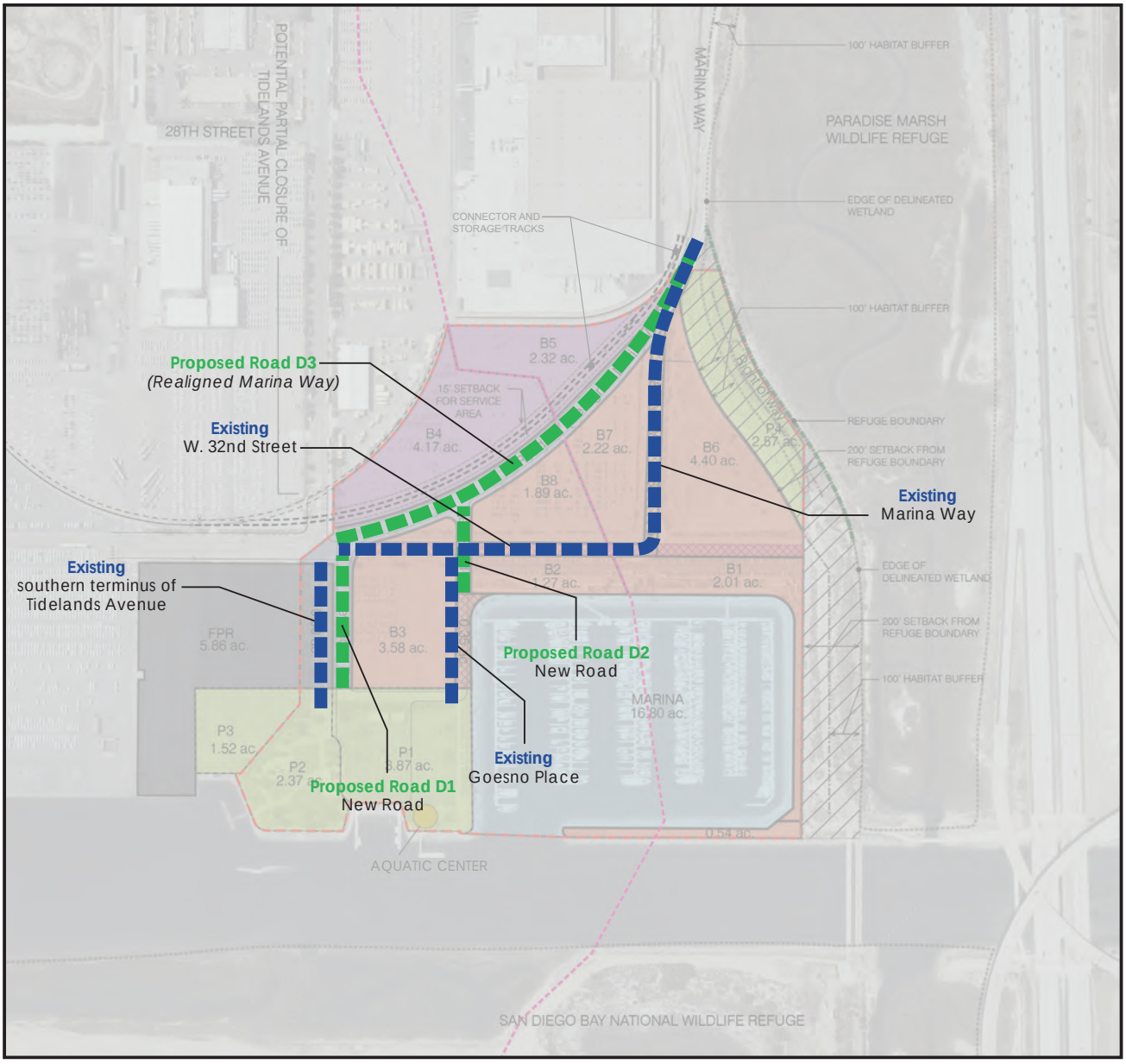

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Figure 3-5
Existing and Proposed Roadways Within Balanced Plan Area
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- Shift the southern terminus of Tidelands Avenue to the east, as shown on Figures 3-1 and 3-5 (identified as Proposed Road D1), to accommodate a reconfigured first point of rest.

The locations of the existing and proposed roadways in the Balanced Plan area are shown on Figure 3-5.

3.4.1.2 Public Access Improvements

The Balanced Plan consists of several public access improvements:

- Increase Pepper Park by approximately 2.5 acres—approximately 1.5 acres to the northwest and approximately 1 acre to the north and east—as shown on Figure 3-4. The Pepper Park expansion, which may also include a reconfiguration of the layout of the existing Pepper Park, has not yet been designed; however, several potential park components and options are being analyzed in this EIR as described below in Section 3.4.1.3, *Proposed Pepper Park Expansion and Reconfiguration*. Once designed, additional environmental review in accordance with CEQA may be required.
- Provide a 100-foot habitat buffer from the delineated wetlands west of the Sweetwater National Wildlife Refuge (Paradise Marsh) and a 200-foot building setback from the western edge of the wildlife refuge, as shown on Figure 3-6. Vehicular parking and low-impact non-motorized uses such as public access trails and bike paths could be located between the habitat buffer and building setback.
- Provide a north–south public access corridor, allowing visual, pedestrian, bicycle, and emergency vehicle access within the existing alignment of Marina Way, as shown on Figure 3-7. The north–south public access corridor would range from 20 to 40 feet wide and be centered on the existing 20-foot-wide view corridor at Pier 32 Marina. The primary use of the north–south public access corridor would be for pedestrians and bicyclists, and no vehicular parking, permanent structures, or other impediments to access would be allowed. The Bayshore Bikeway (see Section 3.4.5) may be routed through this corridor. Modifications to this north–south public access corridor are proposed as part of the GB Capital Component, as discussed below.
- Provide an east–west public access corridor, allowing visual, pedestrian, bicycle, and emergency vehicle access within the existing alignment of 32nd Street, as shown on Figure 3-7. The east–west public access corridor would range from 14 to 40 feet in width. This east–west public access corridor would be for pedestrians and may also include an ancillary bicycle path; however, no vehicular parking, permanent structures, or other impediments to access would be allowed. Modifications to this east–west public access corridor are proposed as part of the GB Capital Component, as discussed below.

3.4.1.3 Proposed Pepper Park Expansion and Reconfiguration

Pepper Park is proposed to be expanded by approximately 2.5 acres, from approximately 5.2 acres to approximately 7.7 acres. Existing amenities include a boat launch ramp, picnic tables, restrooms, fishing pier, floating boat dock, and playground equipment. The park has approximately 71 parking spaces and, consistent with the District's ordinances, is open daily between 6:00 a.m. and 10:00 p.m.

Although the Pepper Park expansion has not yet been designed, the EIR evaluates the following possible components for the park improvements:

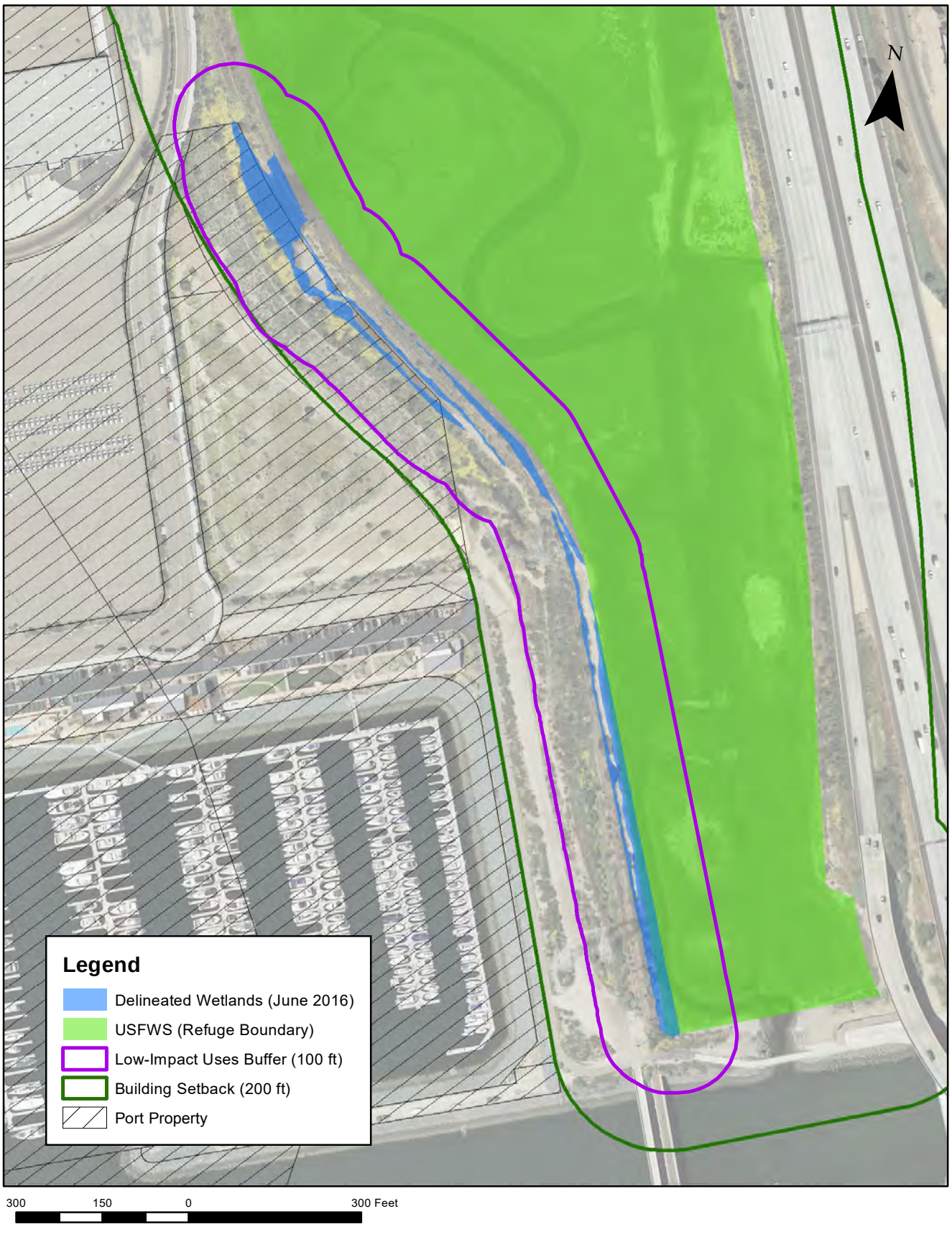

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Figure 3-6
Habitat Buffers with Port Boundaries
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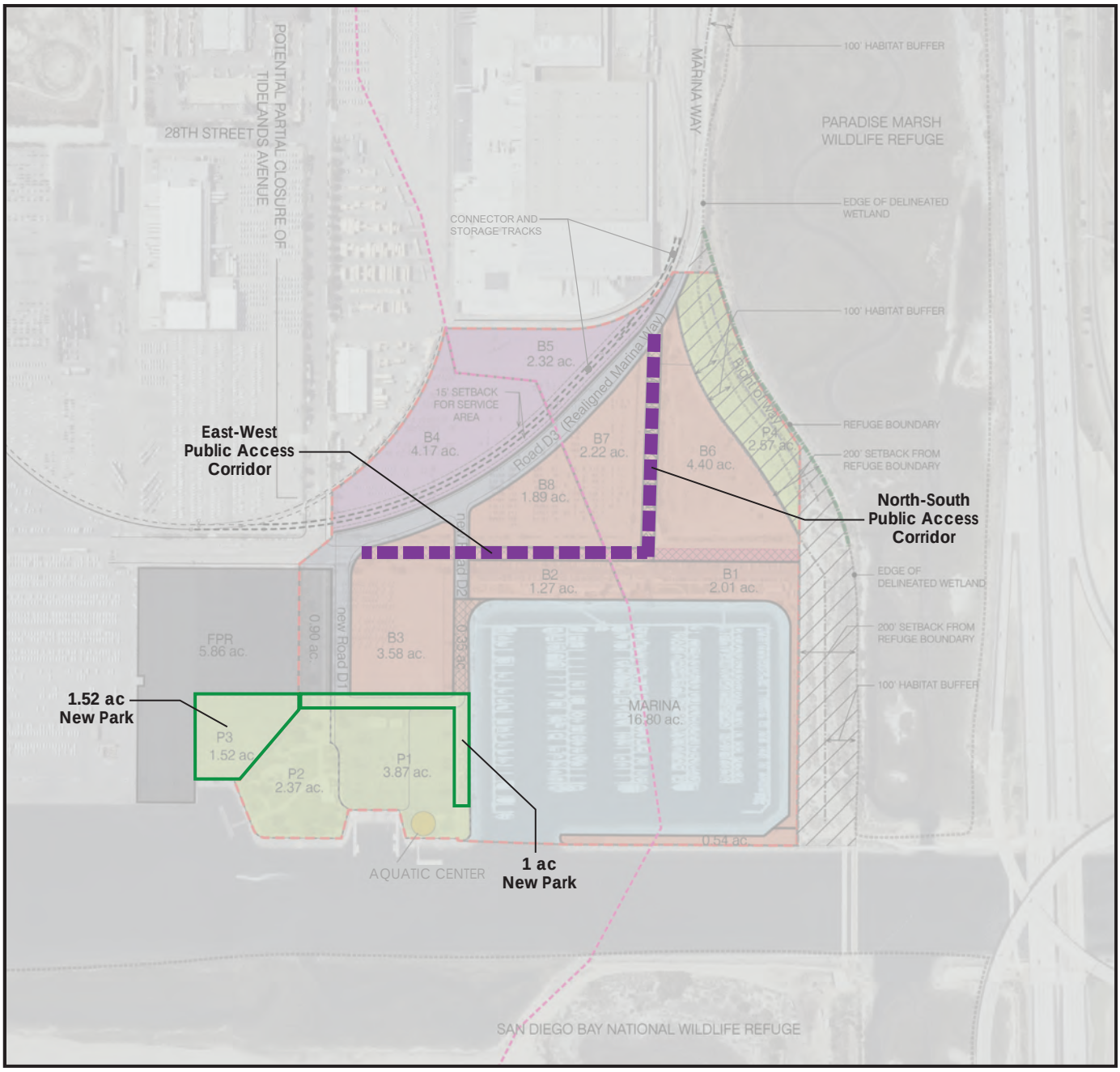

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Figure 3-7
Park and Public Access Corridors
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- Reconfiguration of the existing Pepper Park layout, which may include a mixture of hardscape (e.g., paved plazas, shade structures) and new landscaping (e.g., landscaped berms, open lawn)
- An amphitheater/community stage
- An interactive fountain/splashground

A Pepper Park expansion may include the City-requested relocation of the City-owned historic Granger Hall to Pepper Park, which has also been analyzed in this EIR.

The park expansion/reconfiguration could result in additional opportunities for larger and more frequent organized events. No revisions to the boat launch ramp facility are proposed.

3.4.1.4 Proposed Land and Water Use Designation Changes

The Balanced Plan proposes several changes to existing land and water use designations (see Figure 3-4 for proposed land/water use configuration and roadway locations):

- Decrease the overall designated Commercial Recreation area by approximately 2.7 acres,[2] for a total of 17.4 acres. The land use changes would encompass the area generally southeast of the realigned Marina Way. This net difference includes approximately 0.3 acre of Commercial Recreation that would be redesignated to Park/Plaza to allow for the expansion of Pepper Park (see above). See Section 3.4.2, *GB Capital Component*, for a description of the development proposed for this general area (the footprint of the GB Capital Component is slightly different than the area identified as a Commercial Recreation land use in the Balanced Plan; however, both alignments have been fully analyzed).
- Increase the designated Park/Plaza area by approximately 2.5 acres, for a total of 7.7 acres. The land use change would occur to the north, west, and east of the existing Pepper Park (also see discussion under Section 3.4.1.3) on the parcels identified as P1, P2, and P3 on Figure 3-4.
- Reduce the designated Recreational Boat Berthing area by approximately 0.6 acre, for a total of 16.6 acres within the Balanced Plan area, by redesignating generally the western half of the land area (i.e., jetty) along the southern boundary of the marina that separates the marina from Sweetwater Channel from Recreational Boat Berthing to Commercial Recreation (the area east of the mean high tide line, which is generally the eastern half of the jetty, is within the City's Planning Documents). The approximately 0.2 acre within District jurisdiction is currently designated with a water use designation of Recreational Boat Berthing and is proposed to be revised to the land use designation of Commercial Recreation to better reflect the existing and proposed condition of the area being land and not water. This jetty is also part of the development proposed by GB Capital, as described below in Section 3.4.2.
- Reduce the designated Marine Terminal area that is the historic first point of rest by approximately 0.6 acre. Specifically, Pepper Park would be expanded to the northwest into approximately 1.5 acres of the designated Marine Terminal area; however, the designated Marine Terminal area would be expanded eastward (north of the existing footprint of Pepper Park) by approximately 0.9 acre (due to the entrance into the park area being narrowed and realigned; see "new Road D1" on Figure 3-4), for a total of 6.8 acres.

[2] This is the net increase between areas that are currently either designated Commercial Recreation in the PMP or CT in the City's LCP, and the proposed areas that will be designated Commercial Recreation in the PMP, after all District-owned uplands are added to the PMP.

- Reconfigure and reduce the designated Marine-Related Industrial areas north of the proposed realigned Marina Way by approximately 0.4 acre, for a total of 6.5 acres.
- Reduce the designated Street land use area by 0.8 acre, for a total of 2.0 acres.
- Add approximately 2.6 acres of vacant land, immediately west of the wildlife refuge (identified as Parcel P4 on Figure 3-4), to the PMP and add an Open Space land use designation to the property. That property is proposed to be removed from the City's LCP, where it is designated for Tourist Commercial (CT) land uses.

Table 3-1 summarizes the land and water use changes proposed by the Balanced Plan.

Table 3-1. Balanced Plan Area Existing and Planned Land and Water Use for the Port Master Plan

Land/Water Use	Existing Area (acres)	Proposed Area (acres)	Difference (acres)
Marine Terminal	7.4	6.8	-0.6
Marine-Related Industrial	6.9	6.5	-0.4
Commercial Recreation	7.4	17.39	-2.7
Recreational Boat Berthing	17.2	16.6	-0.6
Park/Plaza	5.2	7.7	+2.5
Street	2.8	2.0	-0.8
Open Bay	0.8	--	--
Open Space	--	2.6	+2.6
Total	59.6	59.6	--

3.4.1.5 Proposed Use Modifications to National City Aquatic Center and Relocation of Buoys

No land use changes are proposed to the aquatic center as part of the project; the aquatic center is in Pepper Park, and the Pepper Park expansion would be designed around the facility. The proposed project includes modifications to existing operational restrictions in the CDP for the facility[3] that limit existing operations and utilization of the facility.[4] Specifically, the project proposes to amend the CDP to eliminate the following restrictions:

- Class sizes are limited to a 1:6 instructor-to-student ratio.
- Water equipment rentals (e.g., kayaks, rowboats) must be docent supervised.
- Participation in aquatic center programming shall not be denied based on the financial ability/ inability to pay.
- Existing buoys in Sweetwater Channel, south of Pier 32 Marina, are in place to prevent encroachment into the adjacent refuge.
- Most aquatic center participants will arrive in groups by bus.

[3] District CDP No. CDP-2011-01, bearing Document No. 57961, dated August 10, 2011.

[4] While these proposed modifications have separate and independent utility, they are being analyzed as part of the proposed project for efficiency.

The project also proposes to expand the allowed uses at the aquatic center to provide for more flexibility and to increase public utilization of the facility, which has been historically low. More specifically, a portion of the facility may be used for educational aquaculture or environmental conservation uses, including small-scale research and development opportunities.

In addition, the project proposes to relocate the buoys located south of Pier 32 Marina in order to allow non-motorized watercraft to access the area farther to the east in Sweetwater Channel. The buoys would be relocated to the east side of the San Diego Gas & Electric Company (SDG&E) property and former railroad bridges, north and south of the channel, as shown on Figure 3-8. The proposed relocation of the buoys would still prevent encroachment into the refuge.

With the operational restrictions reduced and the allowed uses modified, it is anticipated that more people will visit the aquatic center under the proposed project than are currently utilizing the facility. For example, it is also reasonably foreseeable that there will be more public interest in individual water equipment rentals, which are currently prohibited by the CDP.

3.4.2 GB Capital Component

In addition to the land and water use redesignations and transportation improvements needed for the GB Capital Component noted above in the Balanced Plan discussion (see Section 3.4.1), this component would include construction and operation of an RV park, modular cabins, dry boat storage, up to four hotels, and additional moorings and improvements to the marina. In addition, as discussed above, this component would implement a new road realignment for Marina Way, public access/view corridors, and bicycle and pedestrian paths. All of the landside improvements would generally be developed within the Commercial Recreation land use designation that is proposed as part of the Balanced Plan and would require a CDP and lease amendment to implement. The majority of this component would be developed in the first phase, which is anticipated to be operational around 2022. The second phase includes up to four hotels, which would be operational based on market demand, and are anticipated to be developed by or around 2025. Phase 1 and Phase 2 project components are detailed below. Figures 3-9 and 3-10 show the Phase 1 and Phase 2 conceptual site plans, and Figures 3-12 through 3-17 depict renderings of the hotels, dry storage, and proposed 11-story hotel tower.



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Figure 3-8
Proposed Relocation of Buoys
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Figure 3-9
Phase 1 of GB Capital Component
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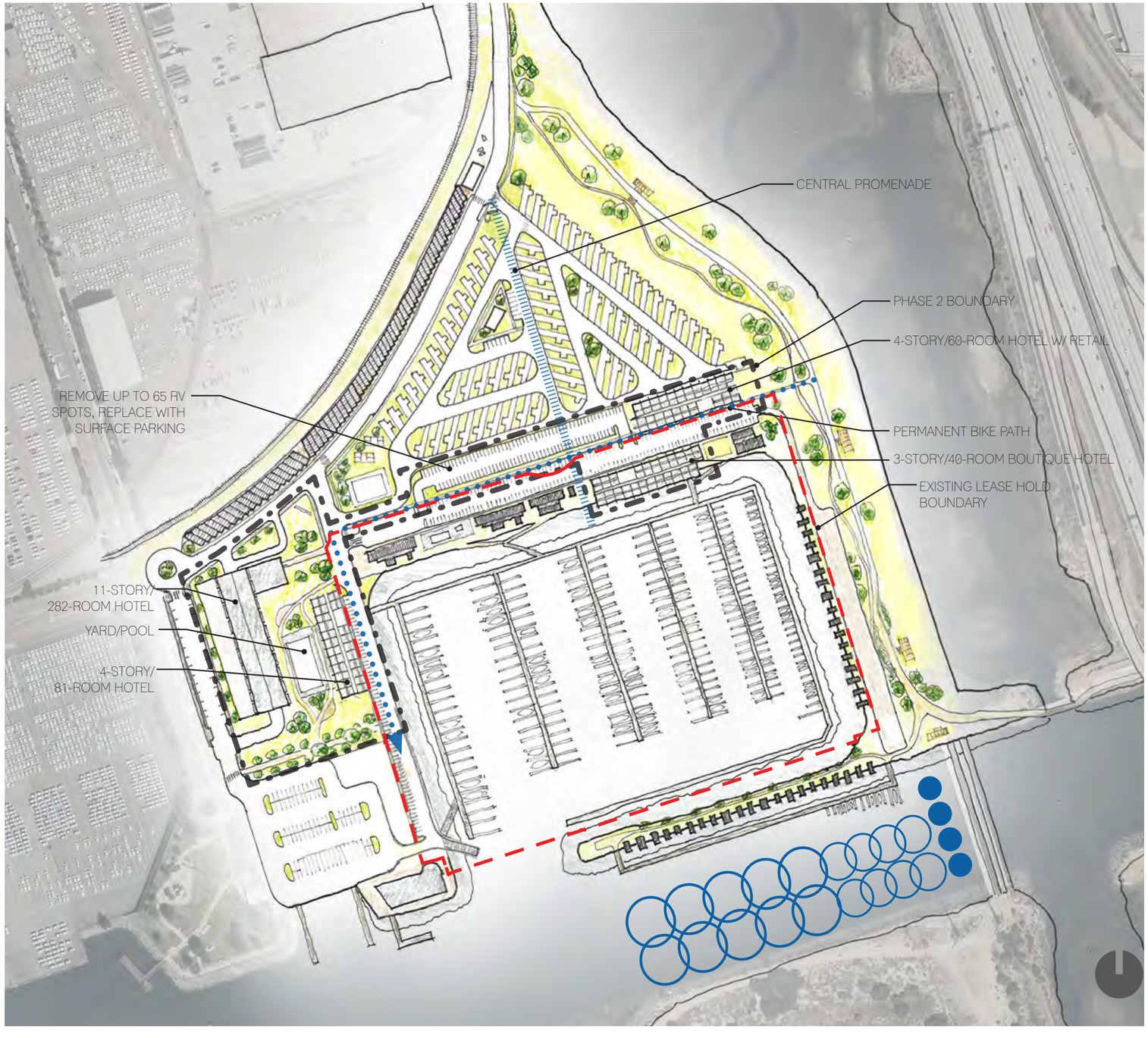

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Figure 3-10
Phase 2 of GB Capital Component
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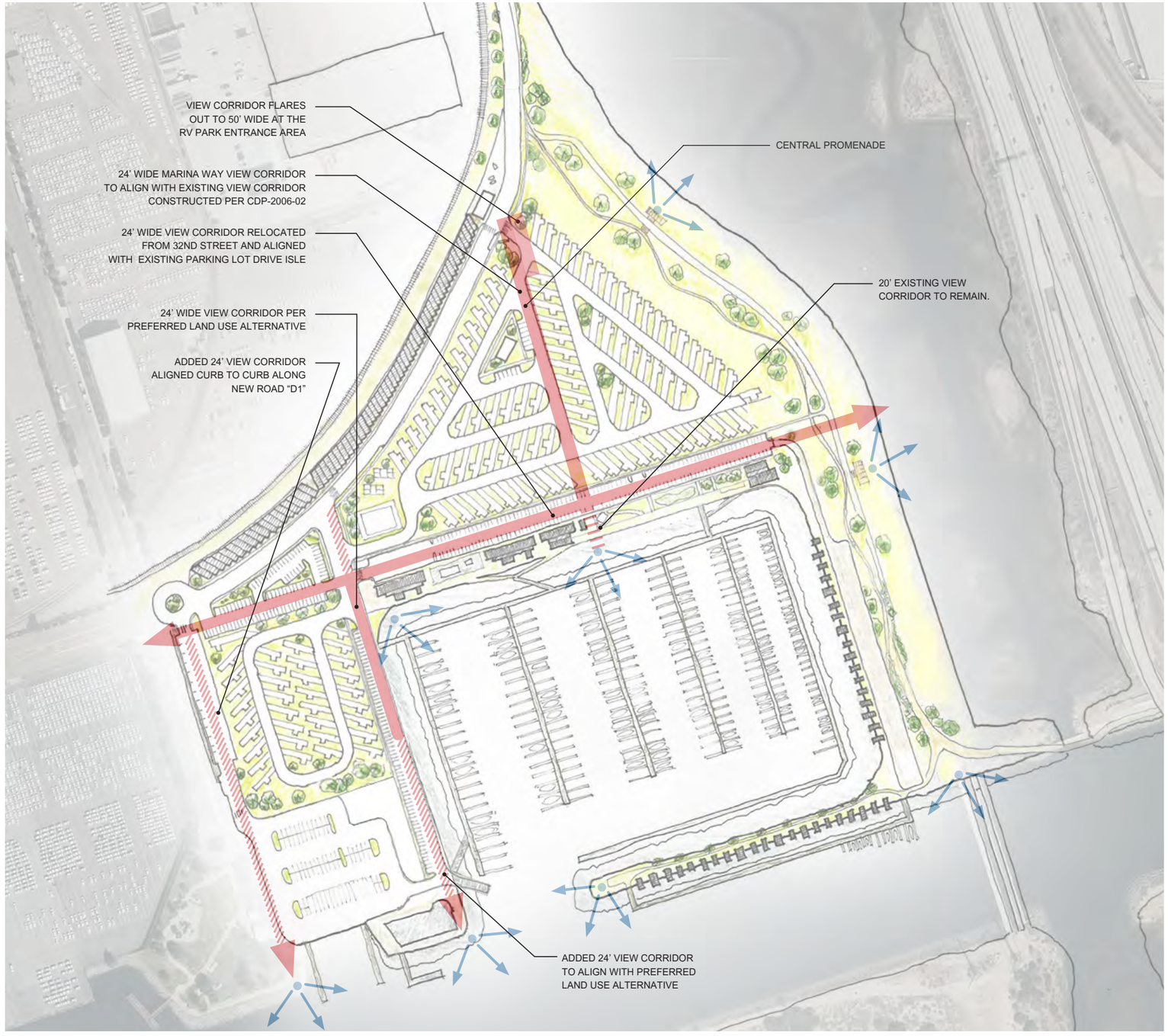

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Figure 3-11
Public Access/View Corridors Proposed by GB Capital
National City Bayfront Projects EIR

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Figure 3-12
Proposed Hotel on Parcel B1
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Figure 3-13
Realigned Marina Way View of Dry Boat Storage
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Figure 3-14
Dry Boat Storage - Closed
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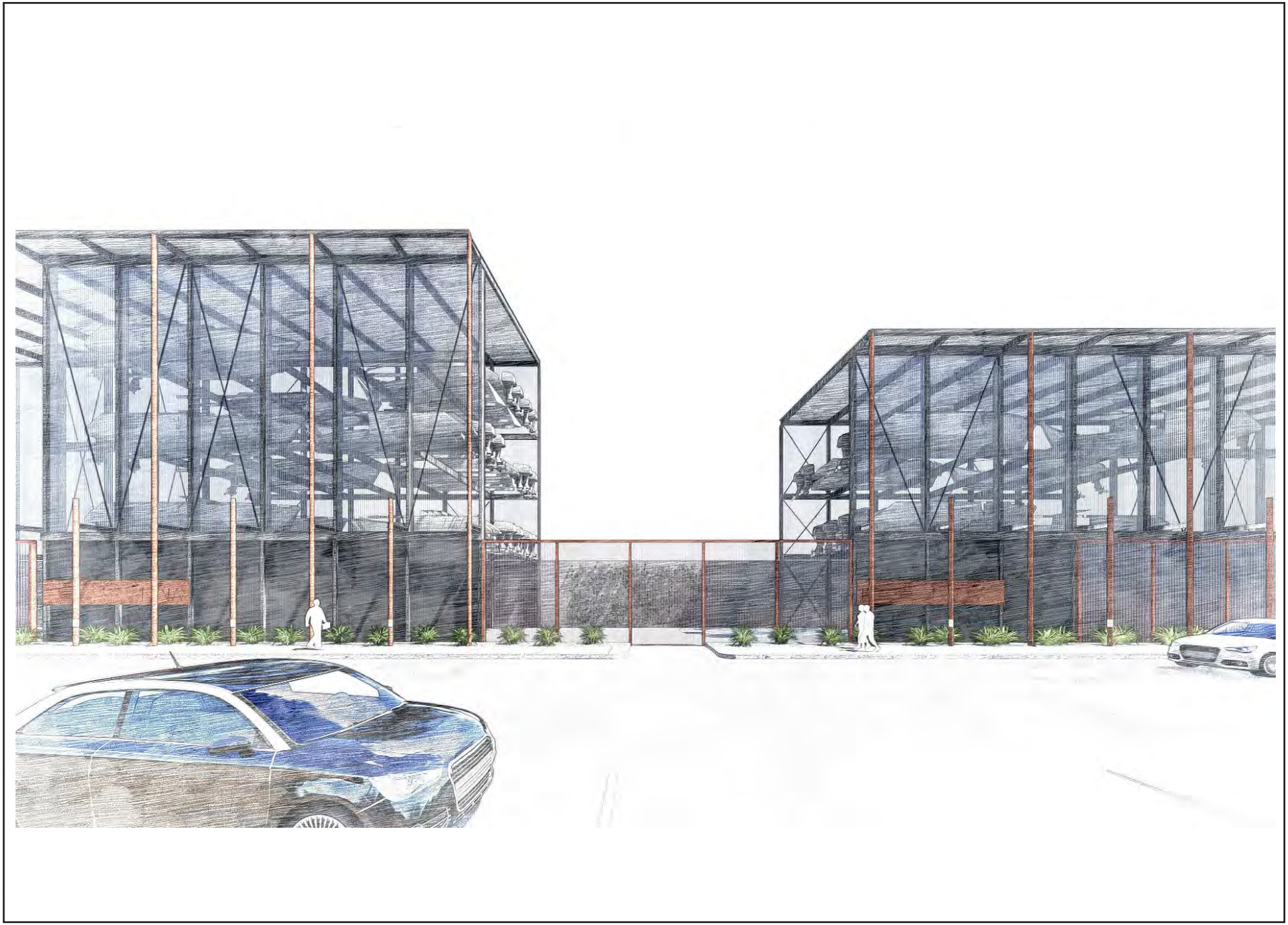

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Figure 3-15
Dry Boat Storage - Open
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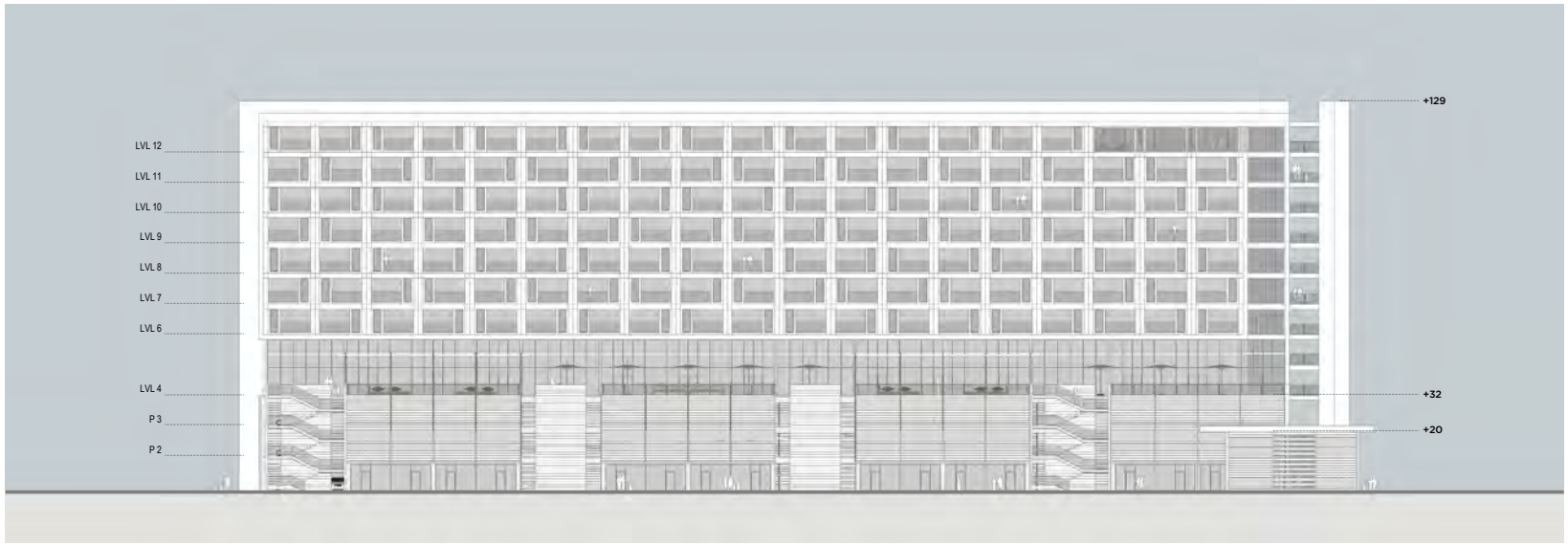

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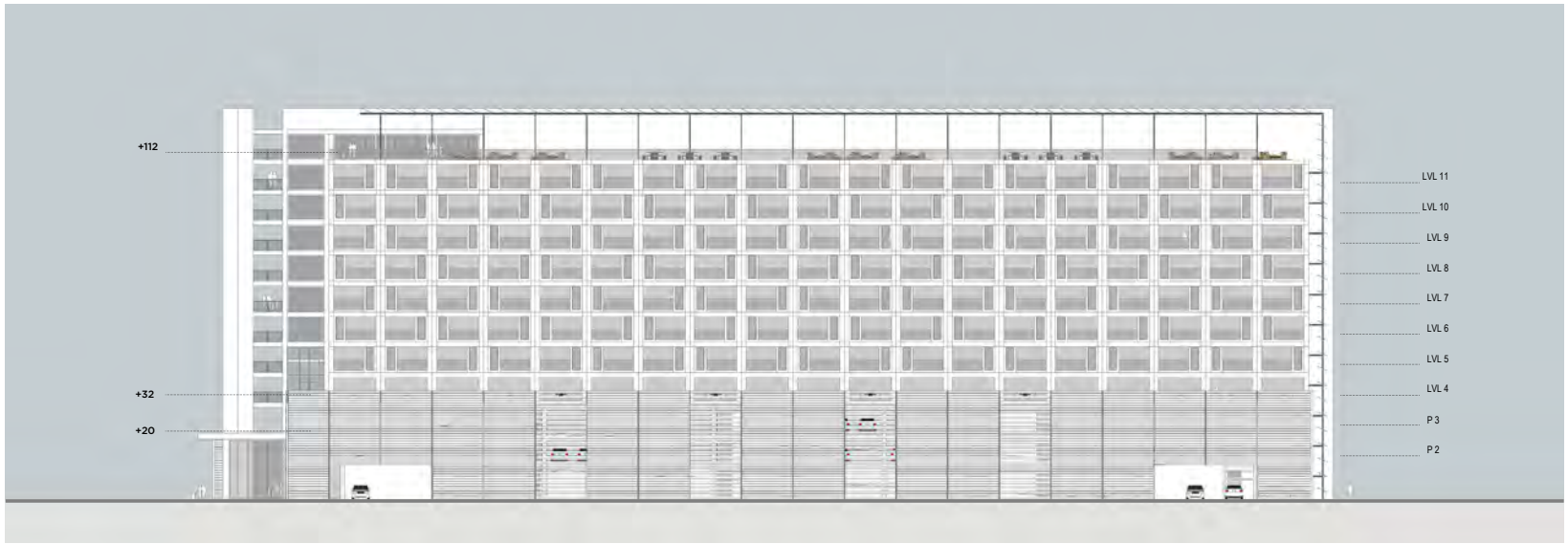

WEST ELEVATION

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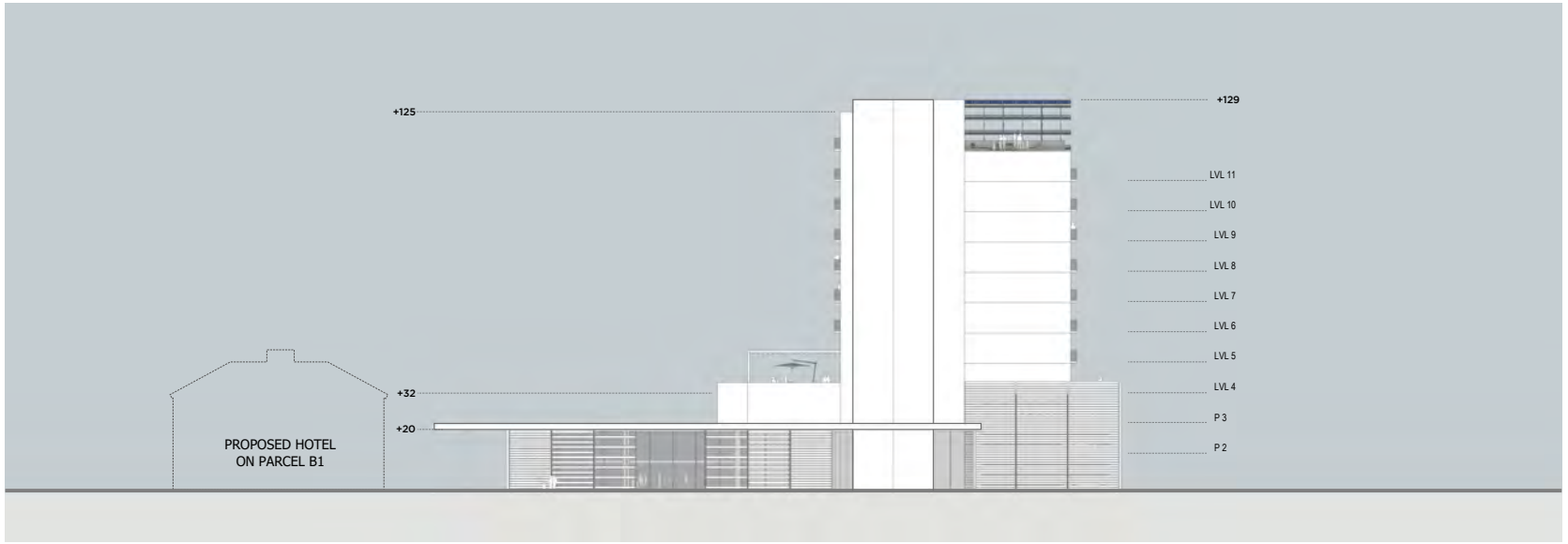
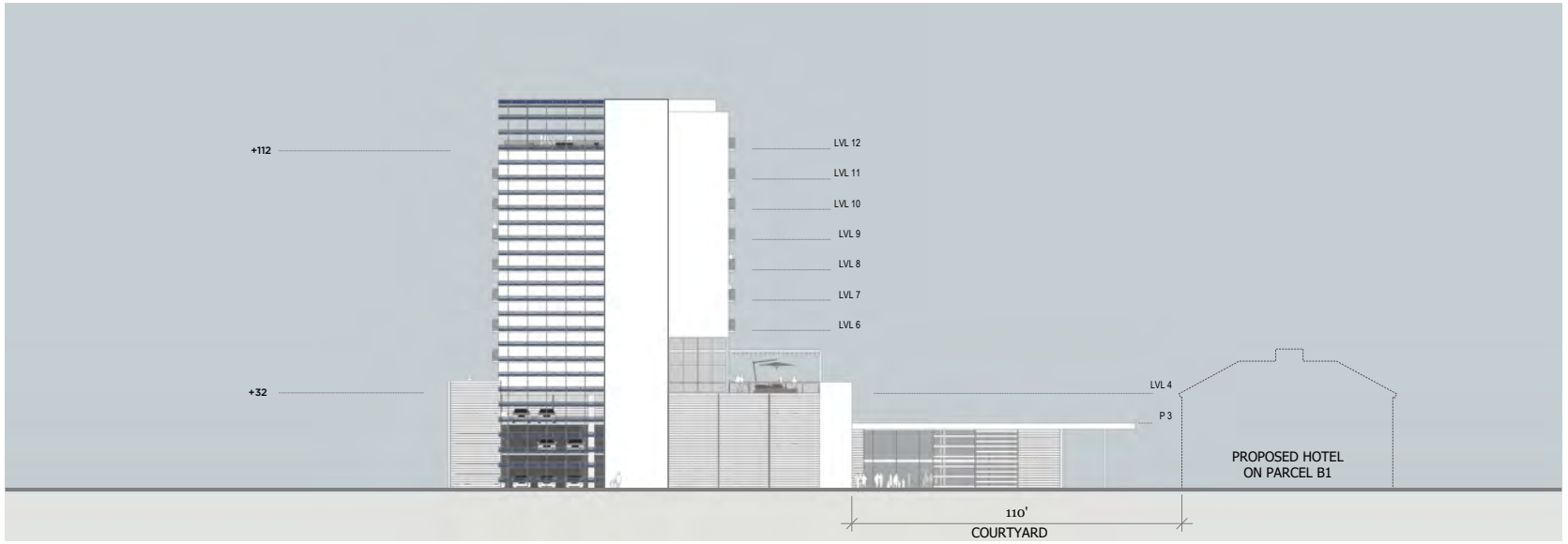
Figure 3-16
GB Capital Phase 2 11-Story Hotel Tower East and West Elevations
National City Bayfront Projects & Plan Amendments EIR



NORTH ELEVATION



SOUTH ELEVATION

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Figure 3-17
GB Capital Phase 2 11-Story Hotel Tower North and South Elevations
National City Bayfront Projects & Plan Amendments EIR

3.4.2.1 Phase 1

Landside Improvements

- Construct and operate up to 135 sites at a proposed RV resort, including ancillary facilities such as a laundry room, swimming pool, and other support facilities. Privacy plantings and/or fencing would be incorporated into the design of the RV park. This would generally be located on Parcels B3, B6, B7, and B8 of the Balanced Plan (see Figure 3-4). The southernmost part of the RV spaces on Parcel B3 overlap onto some of the area proposed for the park expansion area of the Balanced Plan.
- Construct and operate approximately 40,000 square feet of dry boat storage, which would be capable of storing up to 210 boats. The boats would be kept in racks housed within up to five separate structures, each with a maximum height of 65 feet, in the area west of GB Capital's realigned Marina Way. The dry boat storage facilities would be constructed of COR-TEN® steel and perforated metal; the ground surface under the storage racks would be porous gravel or pavers. Two 500-gallon fuel tanks (diesel and gasoline) with containment would be located on the site. Siting dry boat storage in this location (west of the proposed GB Capital alignment of the realigned Marina Way, as shown on Figures 3-1 and 3-4) would require the following modifications to the land use configuration identified in Section 3.4.1, *National City Marina District Balanced Land Use Plan*:
    - The realigned Marina Way/Road D3 would be narrowed and shifted to the southeast from the alignment identified in the Balanced Plan.
    - After narrowing and shifting of the realigned Marina Way/Road D3, a portion of the area between the connector rail track (see Section 3.4.3, *Pasha Rail Improvement Component*) and realigned roadway would be changed to a Commercial Recreation land use to allow for dry boat storage[5] instead of the wider realigned Marina Way/Road D3 that is in the Balanced Plan. This road narrowing and shifting from a width of approximately 70 feet under the Balanced Plan to a width of approximately 50 feet under the GB Capital Component would accommodate approximately 1.3 acres of Commercial Recreation space northwest of the realigned Marina Way/Road D3; GB Capital proposes to construct and operate dry boat storage in this location.
    - Overall, the GB Capital Component would have approximately 0.6 acre more Commercial Recreation space than the Commercial Recreation space in the Balanced Plan. This is due to the shifting/narrowing of the realigned Marina Way/Road D3 (as discussed above), which would not only accommodate Commercial Recreation space for dry boat storage northwest of the realigned roadway, but the southeastward shift would also reduce the size of the Commercial Recreation parcels immediately southeast of the realigned roadway.
- Construct and operate up to 60 modular cabins, which would serve as independent accommodations with kitchenettes, bathrooms, and sleeping quarters, generally on Parcels B1 and B11[6] of the Balanced Plan. The jetty area east of the mean high tide line is currently owned by the California Department of Transportation (Caltrans) but is currently leased to the District under a long-term lease agreement. A small open space/park area is proposed on the jetty.

[5] Dry boat storage is an allowed use under the Commercial Recreation land use, but not in the Marine-Related Industrial land use.
[6] Parcel B11 is the jetty south of the Pier 32 Marina water area.

- Construct a new, approximately 10,000-square-foot, two-story administration/recreation building adjacent to the existing marina buildings on Parcel B2. The new structure would be constructed of wood and glass materials.
- Construct a new, approximately 4,000-square-foot, two-story building with restrooms, laundry facilities, and staff support services in the vicinity of the existing marina buildings. The building would be constructed of wood and glass materials, and would be located on Parcel B2.
- Construct a new, approximately 4,000-square-foot maintenance building and associated approximately 8,200-square-foot maintenance yard northeast of the proposed dry boat storage described above. The existing maintenance space on Pier 32 Marina would be relocated into this new maintenance area. As with the existing space, the new maintenance area would be used to store maintenance items such as parts, tools, paint, and supplies such as those for cleaning and landscaping. The new maintenance area is also proposed to be used by boat owners (or authorized personnel) to perform light boat maintenance such as cleaning, waxing, touch-up painting, and minor repair activities for boat electronics and engines. Heavy repairs or painting boat bottoms would not be performed on site. This maintenance space would also have a separate wash down area for the boats.
- Construct and maintain an approximately 24-foot-wide public access corridor generally down the existing alignment (north–south orientation) of Marina Way, in the general area identified in the Balanced Plan. This corridor, identified as the "Central Promenade" on the GB Capital plans (see Figure 3-11), would accommodate mainly pedestrians and bicycles but would also serve as a driveway for the occasional car or RV. The northernmost part of the Central Promenade would be 50 feet wide.
- Construct and maintain a minimum 24-foot-wide, east–west view corridor with a parking area, drive aisle, and an approximately 6-foot-wide sidewalk through the existing Pier 32 Marina parking lot, in the general area identified in the Balanced Plan. This east–west corridor is shown on Figure 3-11.
- Construct and maintain a minimum 24-foot-wide, north–south view corridor with a roadway and sidewalk through the proposed Road D1. This north–south corridor is shown on Figure 3-11.
- Construct and maintain a minimum 24-foot-wide north–south view corridor with a roadway and sidewalk through the proposed Road D2. This north–south corridor is shown on Figure 3-11.
- Construct and maintain a Class I bicycle path approximately 30 feet east of Parcel B6 and west of the wildlife refuge/Paradise Marsh, within the western part of the "low-impact uses buffer" identified on Figure 3-6. This location is between the potential Routes 1 and 3 of the Bayshore Bikeway in this area (see Section 3.4.5, *Bayshore Bikeway Component).*
- Construct and maintain a pedestrian path and other approved recreational amenities generally east of Parcel B6 of the Balanced Plan area and west of the wildlife refuge/Paradise Marsh, within the western part of the "low-impact uses buffer" identified on Figure 3-6, with public access connecting to the existing marina, consistent with the Balanced Plan.

Waterside Improvements

- Construct and maintain up to 20 moorings in Sweetwater Channel, south of the jetty, the majority of which (13 moorings) would be east of the mean high tide line and would fall within

the City's jurisdiction (with the remaining seven falling within the District's jurisdiction). The moorings would accommodate 20 vessels and would allow overnight stays. The moorings would involve buoys that are 30 inches in diameter and would be secured to a 25-square-foot block that sits on the bottom of the channel. The moorings would accommodate a total of 20 boats.

- Construct an approximately 620-foot-long and 8-foot-wide floating dock that includes up to 30 fingers, which accommodate up to 50 boats. This dock would extend into Sweetwater Channel south of the proposed modular cabins along the jetty within the City's jurisdiction. The dock would be secured by 21 concrete piles measuring 18 inches in diameter with a length of 50 feet, which may necessitate removal of rip-rap. Piles would be jetted into place (a process of pumping water through the hollow pile and jetting out the bottom, which removes soil and creates a hole for the pile). Gangways that are approximately 80 feet long and 5 feet wide are proposed to be located on the eastern and western ends of the floating dock to attach it to the jetty. The floating dock and gangways would total approximately 7,000 square feet. The floating dock would allow overnight use and would be open to the public during operational hours at the marina.
- Construct an approximately 580-foot-long and 8-foot-wide dock with two 80-foot-long and 5-foot-wide gangways, which together total approximately 5,000 square feet, within the existing marina basin north of the jetty. This dock would be secured by 16 concrete piles measuring 18 inches in diameter and 50 feet in length. The dock would accommodate up to 25 smaller boats to be side-tied to the dock, most of which would come from dry boat storage or are day-use boats.
- Allocate an area for future development of infrastructure to support aquaculture in Sweetwater Channel east of the proposed moorings, the majority of which would be east of the mean high-tide line and outside District jurisdiction.
- Construct and maintain an approximately 4,400-square-foot pier platform at an angled southwesterly orientation, of which approximately 1,200 square feet would be over water (with an angled width of approximately 70 feet—one side having a length of approximately 100 feet, and the other side having a length of approximately 50 feet), with floating docks (approximately 120 feet long and 6 feet wide), and two gangways (approximately 80 feet long and 5 feet wide) immediately northeast of the National City Aquatic Center. The platform would be supported by a total of 42 concrete piles measuring 24 inches in diameter and 40 inches in length, with 29 piles on the landside of the platform and 13 on the waterside. When not in use (i.e., placing boats from dry boat storage into the water or removing them from the water), the pier platform and gangway would be open to the public. The pier platform, floating docks, and gangways, which would be within part of the park expansion area of the Balanced Plan (northeast of the aquatic center), would serve the dry boat storage area proposed as part of the GB Capital Component, as well as the general public as a viewing platform.

3.4.2.2 Phase 2

Phase 2 would involve only landside components, including the construction and operation of up to four hotels, as shown on Figures 3-12 through 3-17, of varying sizes and room counts:

- Construct and operate an up to three-story hotel with up to 40 rooms generally on Parcel B1 of the Balanced Plan.
- Construct and operate an up to four-story building, the first floor of which would include approximately 16,500 square feet of retail space. The upper three stories would house a hotel with up to 60 rooms. All would be constructed generally on Parcel B6 of the Balanced Plan.

- Construct and operate an up to 11-story hotel with up to 282 rooms generally on Parcel B3 of the Balanced Plan.
- Construct and operate an up to four-story hotel with up to 81 rooms, also generally on Parcel B3 of the Balanced Plan.

3.4.2.3 Parking and Landscaping

In order to accommodate the hotels on Parcels B3 and B6, it may be necessary to remove up to 65 RV spaces. Sufficient parking for Phase 1 and Phase 2 of the GB Capital Component would be available on site.

Phase 1, as described above, would include up to 406 vehicle parking spaces, including one vehicle parking space within each RV site. For Phase 2, which includes the construction of hotels on parcels B3 and B6, RV spaces may need to be removed. This will allow for a total of 820 vehicle parking spaces, including one vehicle parking space within each RV site. Finally, pending permission from SDG&E, approximately 60 additional parking spaces would be constructed on a parcel east of the existing marina within the 200-foot building setback buffer.

In addition, the GB Capital Component would incorporate native plantings, non-invasive ornamental plants, and drought-tolerant, low-maintenance plants that are well adapted to bayfront conditions throughout the project area. Hardscape materials, consistent with the character of the existing marina, would include permeable paving (porous asphalt, concrete pavers, and decomposed granite). The development would include view corridors and trails that would be connected to the adjacent marina and Pepper Park. Low-level lighting that is sensitive to the adjacent refuge and wetlands is proposed.

3.4.3 Pasha Rail Improvement Component

As discussed in Section 2.5.4 of Chapter 2, *Environmental Setting*, existing train activities on and around NCMT are constrained by the freight train operating windows and limitations on the length of trains. Moreover, the frequent insufficient supply of empty railcars, as well as related storage, further constrains train operations.

3.4.3.1 Proposed Rail Improvements on Lot K

The Pasha Rail Improvement Component would include construction and operation of a connector track and a storage track west of the realigned Marina Way/Road D3 roadway identified in the Balanced Plan. This project component would allow Pasha to load trains more efficiently, as discussed below. The alignments of the connector track and storage track are shown on Figure 3-18, and are also identified on Parcels B4 and B5 of the proposed Balanced Plan (see Figure 3-4).

The connector track would connect the existing rail and loop track on the NCMT, west of the National Distribution Center, to additional railcar storage at the existing BNSF National City Yard, just east of the National Distribution Center. The storage track would provide additional railcar storage by adding a second track parallel to and north of the connector track. Figure 3-18 identifies the locations of the existing National Distribution Center, the existing BNSF National City Yard, the proposed connector track, and the proposed storage track. The project does not propose to remove any existing rail track.

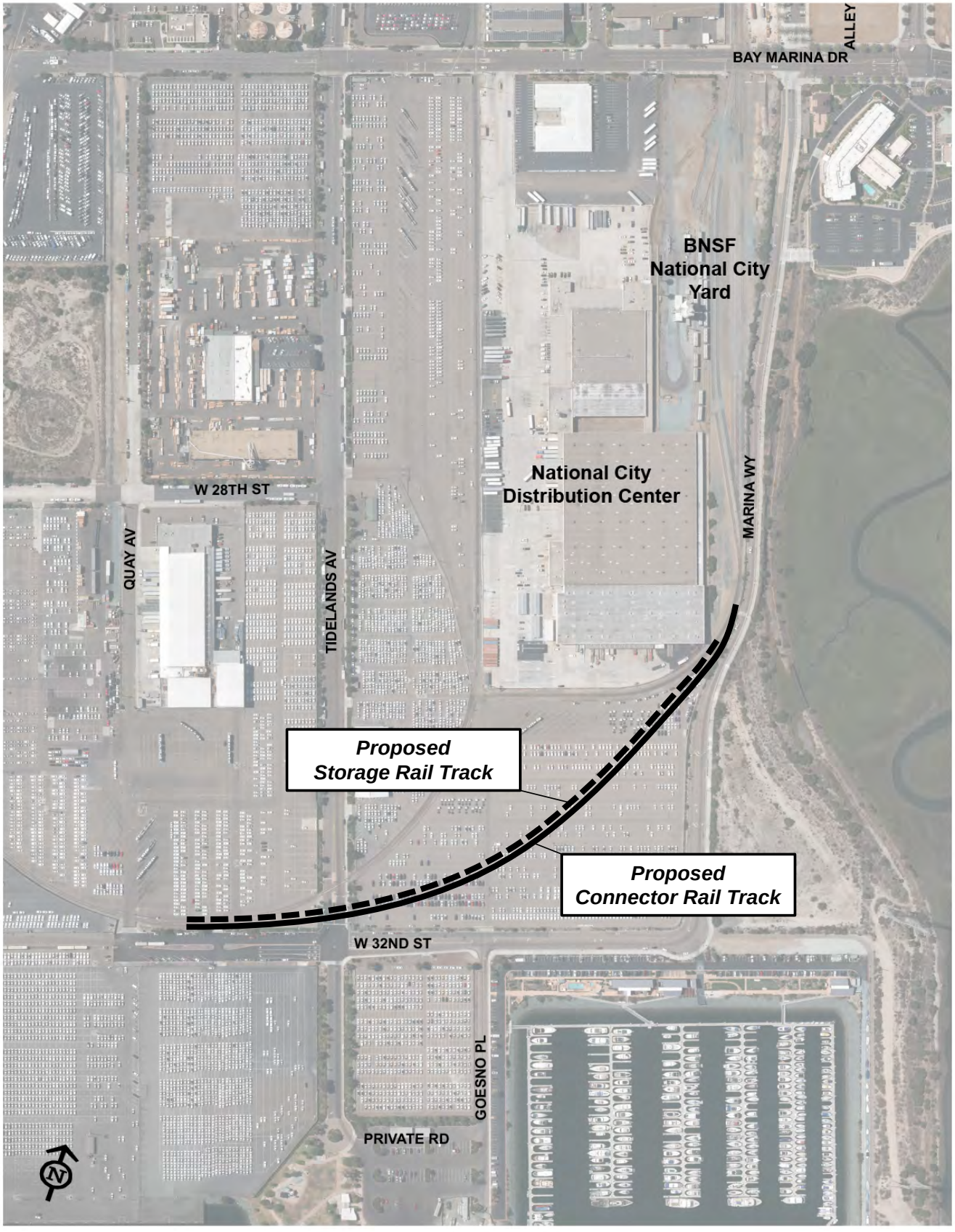

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Figure 3-18
Proposed Rail Tracks
National City Bayfront Projects & Plan Amendments EIR

3.4.3.2 Connector Track

The BNSF National City Yard has eight tracks, has switches, and can hold approximately 50 rail cars. BNSF can use the rail yard either for multi-level auto rail cars or for storage for manifest train rail cars, giving them more flexibility for operations. As discussed above, the connector track portion of the Pasha Rail Improvement Component would improve efficiencies for Pasha's operations at the NCMT. The improved efficiencies are due to Pasha no longer requiring BNSF to pull empty railcars north of the NCMT to the switch near Civic Center Drive and Harbor Drive and then having to send them back to the NCMT on the loop track, which can take a considerable amount of time because it requires dependence on BNSF rail crews. Instead, empty railcars could be pulled on the connector track directly from BNSF's National City Yard to the loop track on the NCMT, resulting in reduced maneuvering and quicker train build times. The reduced maneuvering and quicker train builds would result from (1) the shorter distance required to pull the railcars (from the BNSF National City Yard instead of up to the switch near Civic Center Drive/Harbor Drive) and (2) the ability to avoid relying on BNSF crew availability to pull the railcars through the switch location by using Pasha employees using a small railcar mover. A comparison of the existing and proposed train movements is shown on Figure 3-19.

Notably, although the connector track would reduce the number of maneuvers and the time associated with these actions, it would not significantly increase throughput compared to existing conditions.[7] The connector track, however, could better assist Pasha in accommodating the additional vehicle throughput analyzed in the NCMT Tank Farm EIR (District 2016). The NCMT Tank Farm EIR analyzed a projected annual increase in throughput of 210,818 vehicles. That EIR assumed that existing trains run 6 days per week (Monday through Saturday), for a total of 300 days per year, and that the project would thus require additional annual railcar space for up to 94,868 vehicles, which could be accommodated by adding a Sunday train to the weekly train schedule.

[7] Throughput is a function of land availability, vehicle dwell time, and accessibility to empty railcars. In terms of land availability, the connector track would not increase available land, but under the Balanced Plan there would be a net loss of land available for Pasha (as discussed below and summarized in Table 3-8). Regarding vehicle dwell time, the connector track would not necessarily decrease dwell time because dwell time is largely dependent on the vehicle manufacturer and the dealer (i.e., when the dealer is able to take possession of the vehicle). In terms of accessibility to empty rail cars, the connector track could theoretically increase the accessibility of empty railcars by providing a more direct link to the BNSF National City Yard; however, the availability of the empty railcars would still be dependent on whether BNSF has empty railcars and provides them to Pasha.



Existing Rail Route



Proposed Rail Route

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Figure 3-19
National City Marine Terminal Rail Route National City Bayfront Projects & Plan Amendments EIR

3.4.3.3 Storage Track

The proposed storage track would add approximately 2,000 feet of train storage, which would accommodate the storage of approximately 18–20 railcars. The storage track would allow the approximately 12–15 empty tri-level railcars that Pasha cannot use on a weekly basis to be stored off the on-terminal rail ladder. However, providing an additional railcar storage area would not significantly increase vehicle throughput, particularly if only tri-level cars are available, because they are unable to accommodate larger vehicles such as sport utility vehicles, which is the bulk of Pasha's rail transport needs. The consumer demand for sport utility vehicles and other high-profile vehicles such as trucks is market driven and heavily dependent on gasoline prices. This new car market trend for sport utility vehicles and trucks versus traditional sedans (i.e., low-profile vehicles) is anticipated to continue for the foreseeable future; therefore, bi-level railcars are anticipated to continue to be in high demand at the NCMT. While these tri-level railcars are waiting to be removed from the NCMT rail ladder by BNSF, the railcars affect Pasha's regular rail activities, causing inefficiencies for Pasha to build a train. The storage track, therefore, would provide a place for these empty tri-level railcars to be stored, off the main on-terminal rail ladder. Having these empty railcars off the on-terminal rail ladder would allow regularly scheduled inbound/southbound trains to improve efficiency upon arrival. A less congested rail ladder on terminal creates a smoother, more routine flow of railcars, which supports more efficient operations for Pasha.[8]

3.4.3.4 Proposed Pasha Operations in Balanced Plan Area – Lots J and K

As discussed in Section 2.5.3 and shown in Table 2-3, the amount of Pasha's non-vehicle throughput is a relatively small share of Pasha's overall operations. Therefore, the project assumptions provided below consider the reasonably foreseeable worst-case scenario for the project, based on the maximum theoretical vehicle throughput.

Implementation of the project would result in all of Lot J, as well as a portion of Lot K, being transferred from use by Pasha to use by GB Capital as part of the proposed GB Capital Project Component. This would decrease the land available within the Balanced Plan area for Pasha's operations by approximately 8.23 acres (from the existing 14.72 acres to approximately 6.49 acres).

In the NCMT Tank Farm EIR (District 2016), the methodology used to calculate the proposed vehicle throughput, or maximum theoretical throughput, consisted of a conservative analysis that factored in a dwell time[9] of 10.9 days and a maximum of 154 vehicles per acre. The proposed vehicle throughput is the maximum theoretical capacity of each acre of terminal land. This methodology identified that up to 5,157 vehicles per year could be handled on each acre at the NCMT.[10] The difference between the proposed vehicle throughput per acre (5,157 vehicles) and the "existing throughput" per acre was what was evaluated in the NCMT Tank Farm EIR as the potential throughput increase associated with the NCMT Tank Farm project.

[8] Having railcars available at the NCMT in a more consistent fashion allows Pasha to use employees more efficiently because there is more certainty that the necessary railcars will be available for operations and reduces the need to rely on BNSF.

[9] Dwell time is the time between when a vehicle enters the NCMT and when it leaves the NCMT by either truck or rail. The average dwell time from 2014 to 2017 was over 20 days; 10.9 days provides for a more conservative analysis.

[10] [(154 vehicles/day/acre) x (365 days/year)] ÷ 10.9 day dwell time = 5,157 vehicles/acre/year.

The same methodology that was used in the NCMT Tank Farm EIR to determine the potential throughput increase can be used to determine the change in throughput potential associated with the proposed project. A maximum theoretical throughput of 5,157 vehicles per acre per year is still applicable because the factors included in that calculation are still valid, including the maximum number of vehicles that can fit on 1 acre at one time (154 vehicles), and the use of a 10.9-day dwell time, which provides for a more conservative analysis than if the current average dwell time of over 20 days was used to determine maximum theoretical throughput.

As discussed above, under the proposed project, Pasha's operations within the Balanced Plan area would be decreased by approximately 8.23 acres (from the existing 14.72 acres to approximately 6.49 acres). As shown in Table 3-2, this lower acreage (6.49 acres) still has the potential to result in an additional 570 vehicles per year.

Table 3-2. Existing and Proposed Vehicle Throughput for Lot J and Lot K

Site	Existing Acreage	Existing Throughput/ Existing Baseline (2,235 vehicles/ acre/year)	Proposed Acreage	Proposed Throughput (5,157 vehicles/ acre/year)	Net Change (Proposed – Existing
Lot J	3.35	7,487	0	0	-7,487
Lot K	11.37	25,412	6.49	33,469	8,057
Total	14.72	32,899	6.49	33,469	570

3.4.4 Pasha Road Closures Component

Pasha also proposes the Pasha Road Closures Component, which includes closure of Tidelands Avenue between Bay Marina Drive on the north and 32nd Street on the south, as well as West 28th Street between Quay Avenue and Tidelands Avenue. Tidelands Avenue between Bay Marina Drive and 32nd Street is an access road to the back gate of the NCMT; it also serves as an access road to the main entrance of Pepper Park. The existing roadways bifurcate marine terminal operations. Closure of the roads would increase operating efficiencies by eliminating certain internal fences and drive aisles and consolidating the two truck-away locations down to one, a reduction in the truck-away footprint of approximately 0.5 acre.[11] The road closures total approximately 6.07 acres, of which approximately 5.76 acres are within the District's jurisdiction and the remaining approximately 0.31 acre is within the City's jurisdiction. The area of the road closures within the District's jurisdiction would require changing land use designations from Street to Marine-Related Industrial. This land use change would require a PMPA, as further described in Section 3.4.7, *Port Master Plan Amendment Component*. Table 3-3 summarizes the land and water use changes proposed for the Balanced Plan area and the Pasha Road Closures Component within the District's jurisdiction.

[11] The truck-away footprint is an off-terminal location where trucks are loaded. Off-terminal in this case is where security credentials (e.g., a Transportation Worker Identification Credential) are not required. Currently, because of the non-contiguous lots used for Pasha operations, there are two truck-away locations. If the Pasha Road Closures Component is implemented, there would be more contiguous space for Pasha's operations, with less fencing, and the ability to reduce two truck-away locations down to one. Having fewer barriers within Pasha's operational footprint reduces the amount of required travel and the number of movements and allows trucks to load more efficiently at one location versus two locations.

Table 3-3. Balanced Plan and Pasha Road Closures Component – Existing and Planned Land and Water Uses Areas within the District's Jurisdiction

Land/Water Use	Balanced Plan – Existing Area (acres)[1]	Balanced Plan – Proposed Area (acres)[1]	Pasha Road Closures – Existing Area (acres)[2]	Pasha Road Closures – Proposed Area (acres)[2]	Proposed Totals
Marine Terminal	7.4	6.76	0.00	0.00	6.76
Marine-Related Industrial	6.9	6.49	0.00	5.76	12.25
Commercial Recreation	7.4	17.39	0.00	0.00	17.39
Recreational Boat Berthing	16.9	16.80	0.00	0.00	16.80
Park/Plaza	5.2	10.33	0.00	0.00	10.33
Street	2.5	3.14	5.7	0.00	3.14
Open Bay	0.8				
Total	47.1	60.91	5.7	5.76	66.67

Note: The Pasha Road Closures Component is not part of the Balanced Plan.
[1] Within the Balanced Plan area.
[2] Within the Pasha Road Closures area.

The approximately 0.3 acre of the Pasha Road Closures Component (the portion between the mean high-tide line north to Bay Marina Drive) within the City's jurisdiction would require an amendment to the City's General Plan Circulation Element, Roadway Classifications, as described under Section 3.4.8, *City Program – Plan Amendments Component*.

The road closures are proposed to occur in two phases: (1) Tidelands Avenue between West 28th Street and 32nd Street, and (2) Tidelands Avenue between West 28th Street and Bay Marina Drive, and West 28th Street between Tidelands Avenue and Quay Avenue.

As noted previously, vehicle throughput is a function of land availability, vehicle dwell time, accessibility to empty railcars, and market conditions. The road closures would have no effect on vehicle dwell time, accessibility to empty railcars, or market conditions, and are proposed to be used for truck-away activities and not explicitly for vehicle storage/processing. However, to provide a more conservative analysis, this EIR analyzes the 6.07 acres being used for Pasha's vehicle throughput operations. Maximum theoretical throughput on 6.07 acres of land could be up to 31,303 vehicles per year,[12] as shown in Table 3-4.

Table 3-4. Existing and Proposed Vehicle Throughput for Pasha Road Closures Component

Site	Acreage under Proposed Project	Existing Throughput	Proposed Throughput (5,157 vehicles/acre/year)	Difference (Potential minus Existing)
Pasha Road Closures	6.07	0	31,303	31,303

[12] Existing Throughput = 0 vehicles; Potential Throughput = 5,157 vehicles/acre/year (see Footnote 10); 6.07 acres x 5,157 vehicles/acre/year = 31,303 vehicles/year.

3.4.4.1 Summary of Existing and Proposed Pasha Operations on Lot J, Lot K, and Pasha Road Closures Site

Pasha currently operates on Lots J and K, as shown on Figure 3-20. The project would eliminate Pasha's use of Lot J but would include Pasha's continued operations on a modified footprint on Lot K, as well as Pasha's proposed use of the Pasha Road Closures site. Overall, with the elimination of Lot J and modification to Lot K, the project would decrease the land available for Pasha operations. The changes in proposed land availability for Pasha within the Balanced Plan area and the Pasha Road Closures site are summarized in Table 3-5.

Table 3-5. Summary of Land Availability for Pasha within Balanced Plan and Pasha Road Closures Components Areas (acres)

Location	Existing	Proposed	Difference
Balanced Plan Area			
Lot K	11.37	6.49	-4.88
Lot J	3.35	0.00	-3.35
Pasha Road Closures Area	0.00	6.07	+6.07
Total	14.72	12.56	-2.16

The existing vehicle throughput on Lot J, Lot K, and the Pasha Road Closures site; the potential maximum theoretical throughput on the proposed Lot J, Lot K, and the Pasha Road Closures site; and the difference between each is provided in Table 3-6.

Table 3-6. Comparison of Existing Vehicle Throughput and Maximum Theoretical Vehicle Throughput for the Proposed Project

Site	Existing Acreage	Existing Throughput, Existing Baseline (2,235 vehicles/ acre/year)	Proposed Acreage	Maximum Theoretical Throughput (5,157 vehicles/acre/year)	Net Change
Lot J	3.35	7,487	0	0	-7,487
Lot K	11.37	25,412	6.49	33,469	+8,057
Pasha Road Closures	6.07	0	6.07	31,303	+31,303
Total	14.72	32,899	12.56	64,772	+31,873

The NCMT Tank Farm EIR analyzed, among other things, a potential increase in throughput on the existing Lot J and Lot K; therefore, a part of the potential increase in vehicle throughput associated with the proposed project site has already been analyzed in the NCMT Tank Farm EIR.

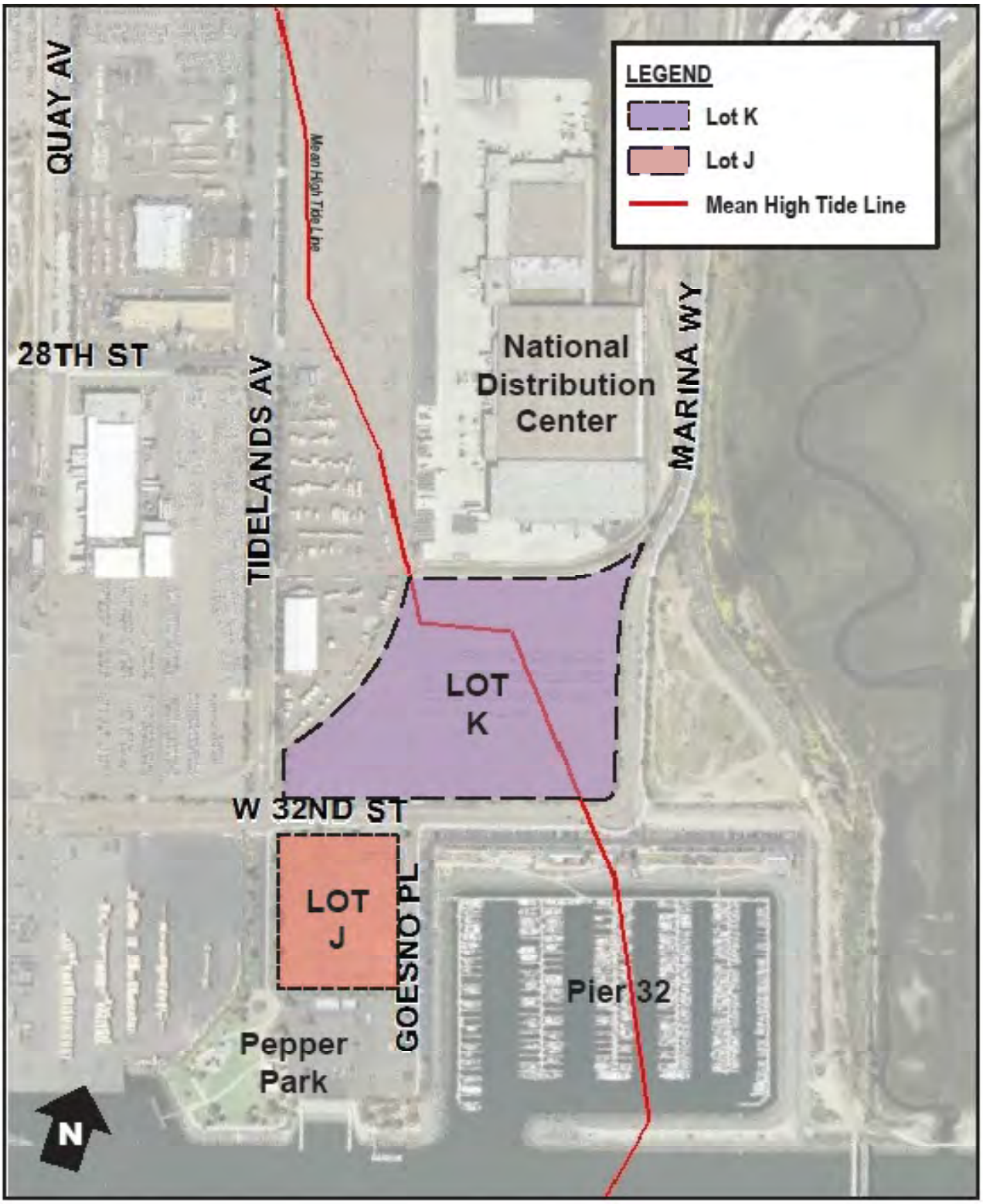

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Figure 3-20
Location of Lot J and Lot K
National City Bayfront Projects & Plan Amendments EIR

To determine the difference between what was analyzed as the potential throughput increase on (the existing) Lot J and Lot K in the NCMT Tank Farm EIR and the potential throughput increase associated with the proposed project (see Table 3-6), the per-acre calculations based on the "existing throughput" from the NCMT Tank Farm EIR needs to be calculated for the existing acreage of Lot J and Lot K. This calculation is shown in Table 3-7.

Table 3-7. Comparison of Existing and Proposed Vehicle Throughput for Existing Lot J and Lot K, per NCMT Tank Farm EIR

Site	Existing Acreage	Existing Throughput (2,287 vehicles/ acre/year)	Maximum Theoretical Throughput (5,157 vehicles/acre/year)	Net Change
Lot J	3.35	7,661	17,276	+9,615
Lot K	11.37	26,003	58,635	+32,632
Total	14.72	33,664	75,911	+42,247

As shown in Table 3-6, the project has the potential to increase vehicle throughput by approximately 31,873 vehicles per year over existing conditions. Comparing the project's potential increase in annual vehicle throughput of 31,873 vehicles to the annual vehicle throughput that was analyzed in the NCMT Tank Farm EIR for Lot J and Lot K (42,247 vehicles, per Table 3-7), the project would decrease the throughput potential by 10,374 vehicles per year.[13] This is a comparison of what was analyzed in the NCMT Tank Farm EIR for the existing Lot J (3.35 acres) and the existing Lot K (11.37 acres), and the difference between the maximum theoretical throughput/capacity and the existing throughput (i.e., "Maximum Theoretical Throughput" minus "Existing Throughput, Existing Baseline") for the project site, which includes Pasha operations on a modified Lot K (6.49 acres) and the Pasha Road Closures (6.07 acres).

3.4.5 Bayshore Bikeway Component

An alignment of the Bayshore Bikeway Component would extend generally from Civic Center Drive on the north to 32nd Street on the south, via McKinley Avenue and Marina Way. The Bayshore Bikeway Component would construct a Class I bike path that traverses the City's LCP and some areas of the District's proposed PMP. The Bayshore Bikeway Component would have a 12-foot width, as stipulated in the San Diego Association of Governments (SANDAG) Regional Bike Plan for Class I bike paths, and would replace an existing interim bike path in the project area that includes Class II and III segments and was constructed in 2018 (see Figure 3-21). The project proposes that the existing interim bike path would not be removed until the Bayshore Bikeway Component is constructed. The proposed Bayshore Bikeway Component, which is proposed to be implemented by the City, would be located away from active marine terminal and maritime-related industrial areas. Figure 3-21 shows each of the three optional alignments that are analyzed under CEQA, though only one alignment would be selected for implementation. As of the writing of this EIR, the preferred route of the City is Route 3. The southern portion of this route is consistent with the Bayshore Bikeway location identified in the PMP and the City's HDSAP. The route details for each of the three possible alignments are provided below.

[13] 42,247 vehicles per year – 31,813 vehicles per year = 10,434 vehicles per year.

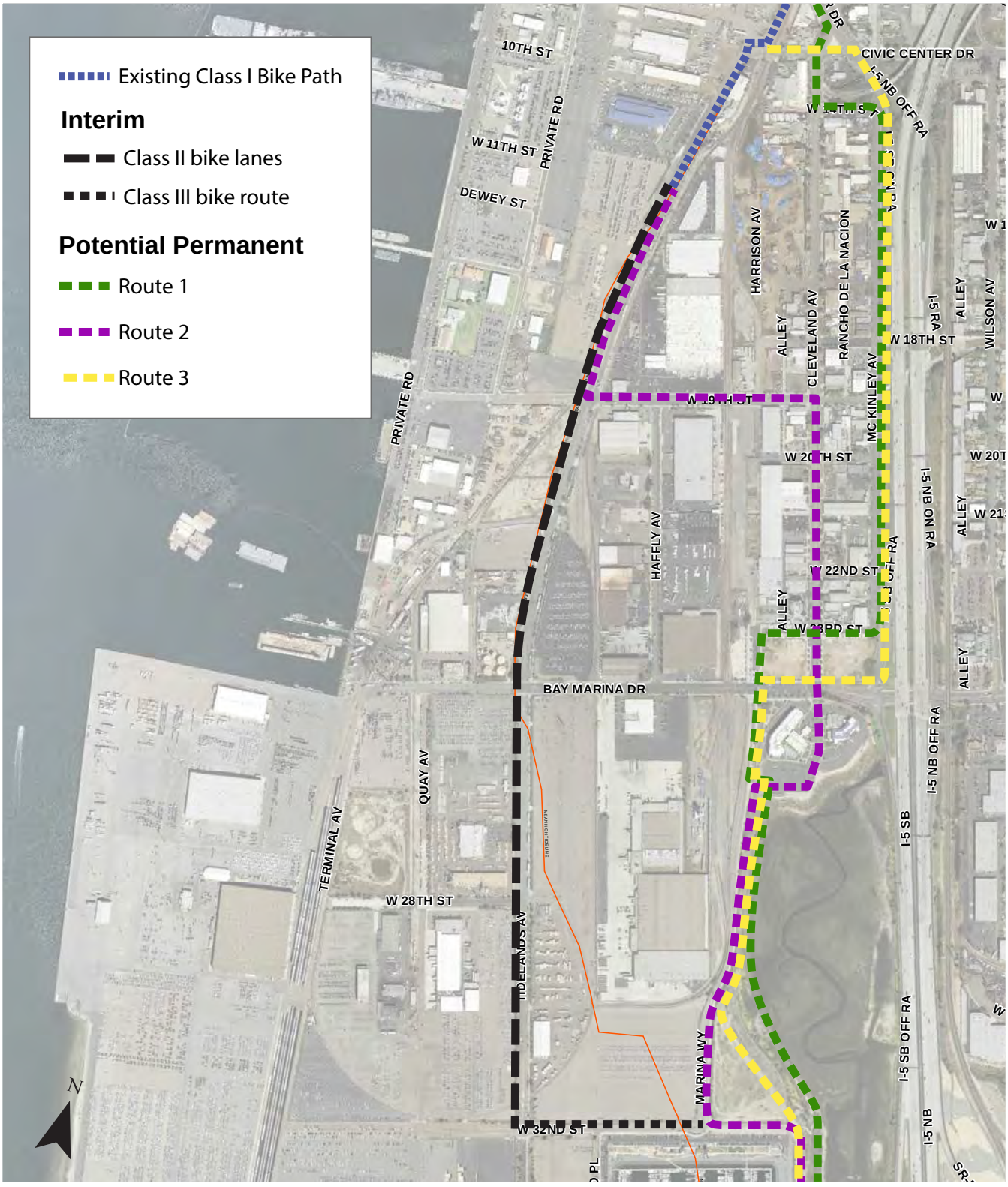

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Figure 3-21
Existing Interim and Potential Permanent Alignments of SANDAG Bayshore Bikeway in National City
National City Bayfront Projects & Plan Amendments EIR

3.4.5.1 Route 1

Route 1 is approximately 8,152 feet long and would travel along the former railroad ROW to the southern end of the Best Western Marina Gateway hotel, where it would turn west to travel along the western side of Marina Way. This route would then turn east on West 23rd Street and north onto McKinley Avenue.

3.4.5.2 Route 2

With an approximate length of 7,887 feet, Route 2 would travel along the existing alignment for Marina Way from 32nd Street to the southern end of the Best Western Marina Gateway hotel, where it would turn east into the hotel parking lot, turn north between the two buildings on the hotel property, cross Bay Marina Drive, and travel north along Cleveland Avenue to West 19th Street. The route would turn west at West 19th Street, then north on Tidelands Avenue.

3.4.5.3 Route 3

Route 3, which is approximately 7,929 feet long, would travel between the former railroad ROW and existing Marina Way on the southern end and along McKinley Avenue on the northern end. This route would travel along Bay Marina Drive, between Marina Way and McKinley Avenue, then turn north on McKinley Avenue. Fencing is proposed along the edge of the bikeway in the area proposed to be downslope/east of Marina Way and west of Paradise Marsh. The southern portion of this route is consistent with the Bayshore Bikeway location identified in the PMP and the City's HDSAP. The roadway closures and conversions would cause McKinley Avenue to be converted to a one-way southbound roadway. These roadway closures and conversions would cause a shift in existing travel patterns on the project site as well as modifications to the East Harbor Drive/Civic Center Drive intersection.

3.4.6 City Program – Development Component

The City Program – Development Component proposes amendments to the City's General Plan, LCP, HDSAP, and LUC for seven parcels north of Bay Marina Drive, all of which are discussed in Section 3.4.8, *City Program – Plan Amendments Component*. Six of the parcels (totaling approximately 2.9 acres) are owned by the City and compose two complete blocks between Bay Marina Drive to the south, West 23rd Street to the north, Marina Way (formerly Harrison Avenue) to the west, and I-5 to the east. The remaining parcel (approximately 1.2 acres), owned by the City and leased to the San Diego Railway Association, is at the northwest corner of Bay Marina Drive and Marina Way (formerly Harrison Avenue); the historic Santa Fe Rail Depot is on this parcel, and no new development is proposed on this parcel.

The two City-owned, non-leased blocks are currently vacant. The City proposes to rezone the parcels to CT, which could allow these parcels to be developed with hotel, restaurant, retail, and/or some combination of tourist-/visitor-serving commercial uses. The CT zone allows a floor area ratio (FAR) of up to 1.0, with no height limit; however, as part of the City Program – Plan Amendments Component (see Section 3.4.8), the City proposes to increase the FAR to 2.0 in the CT zone. The maximum allowable development with a FAR of 2.0 would be approximately 254,782 square feet of floor area. The proposed 2.0 FAR would allow for the development of desired land uses that require substantial floor areas such as hotels. The parking requirement would be based on the specific uses permitted in the CT zone.

For purposes of the analysis, an example of a potential development scenario associated with the City Program – Development Component would be a hotel with up to five stories and 150 rooms, along with 15,500 square feet of restaurant space and 12,000 square feet of retail space.

The City Program – Development Component would also include the potential closure, or narrowing, of Bay Marina Drive (west of Marina Way) to through vehicular traffic. Changes to Bay Marina Drive may include keeping the road in its present condition with four lanes (two each way), reducing the four lanes to two lanes (one each way), and closing the road to through traffic.

An alignment of the Bayshore Bikeway, consistent with Routes 1, 2, and 3 as described above, would traverse the City Program – Development Component site, which would be in City jurisdiction and outside District jurisdiction. Development on the City Program – Development Component site would not be subject to the Public Trust, but it would be within the California Coastal Zone and the City's LCP area. As discussed under Section 3.4.8, the City Program – Plan Amendments Component would require amendments to the City's General Plan, LUC, LCP, and HDSAP.

3.4.7 Port Master Plan Amendment Component

The project components that are under the District's existing planning jurisdiction are within the National City Bayfront, Planning District 5, of the PMP. This planning district is an established developed area with designated Marine-Related Industrial, Marine Terminal, Commercial Recreation, Recreational Boat Berthing, Park/Plaza, Promenade, Street, and other land and water uses. "Marina District" is the term for the area generally north and west of Pier 32 Marina and including Pier 32 Marina. There are multiple actions related to the PMPA. The proposed PMPA, which would incorporate the Balanced Plan, Pasha Road Closures Component, GB Capital Component, Pasha Rail Improvement Component, and a portion of the Bayshore Bikeway Component, would change the associated PMP maps, text, and tables to include the above land/water use changes associated with the project components. It would generally include the following more-specific features:

- Change Tidelands Avenue between Bay Marina Drive and 32nd Street, as well as West 28th Street between Quay Avenue and Tidelands Avenue, from Street to Marine-Related Industrial.
- Change the PMP maps and tables to reflect the revised land and water use designations associated with the Balanced Plan.
- Revise the Circulation/Navigation Element of the PMP to identify proposed Segment 5 of the Bayshore Bikeway within District jurisdiction.
- Modify and add public access corridor locations and widths for north–south and east–west public access corridors.

As discussed in Section 3.4.2, the GB Capital Component would result in a land use configuration that would vary slightly from that identified in the Balanced Plan; therefore, this EIR includes two versions of the PMPA—one that reflects the land use configuration associated with the Balanced Plan (see Appendix D to this EIR) and one that reflects the land use configuration associated with the GB Capital Component (see Appendix E to this EIR).

After certification of the PMPA, the project components within the District's planning jurisdiction would require CDPs from the District, issued pursuant to the then-certified PMP.

3.4.8 City Program – Plan Amendments Component

Implementation of the City Program – Development Component and most of the Bayshore Bikeway Component would require amendments to the City's General Plan, LCP, HDSAP, LUC, and Bicycle Master Plan. In addition, with the exception of the property owned by Caltrans, the area of the GB Capital Component east of the mean high tide line and not currently within the PMP would be amended in the City Planning Documents to reflect that this area would be added to the PMP through the project's PMPA and the amendment to the City's LCP and HDSAP.

In 2011, the City adopted a General Plan Update and an LUC Update, which created new land use designations and zoning classifications for the City's entire planning area. However, the new land use designations and zoning classifications do not apply to areas within the City's LCP, pending an LCPA to incorporate these changes. Consequently, land uses within the City's LCP (generally, areas west of I-5) are regulated under the City's 1996 General Plan (as amended) and the previous LUC that preceded the 2011 update. Prior to the 2011 updates, land uses and zoning were identified in the 1996 Combined General Plan/Zoning Map, as amended.

The City Program – Plan Amendments Component would amend the City's General Plan Land Use Map and the LUC Official Zoning Map to change the 1996 Combined General Plan/Zoning Map designations for five parcels (1–3, 5, and 6 as shown on Figure 3-3) that are designated Medium Manufacturing (MM) and two parcels (4 and 7 as shown on Figure 3-3) that are designated CT to Specific Plan in the General Plan Land Use Map and HDSAP in the LUC Official Zoning Map. The HDSAP would be amended to incorporate the seven parcels and rezone five of the parcels from MM to CT. In addition, the FAR for the CT zone is proposed to be increased from 1.0 to 2.0. The proposed 2.0 FAR would allow for the development of desired land uses that require substantial floor areas such as hotels. The City's Bicycle Master Plan would also be amended to reflect the realignment of the Bayshore Bikeway. The LCP would be amended to reflect these changes to land use, zoning, and Specific Plan designations.

The City Planning Documents would also be amended to reflect the GB Capital Component of the project. For the portions of the GB Capital Component within District jurisdiction, the General Plan Land Use Map and the LUC Official Zoning Map would be amended to change the 1996 Combined General Plan/Zoning Map designation of CT to San Diego Unified Port District in the General Plan Land Use Map and Port Master Plan in the LUC Official Zoning Map. The HDSAP would be amended to remove the District's jurisdictional areas of the GB Capital Component from the Specific Plan. The LCP would be amended to reflect these changes. In addition, all of the road closures would need to be removed from the Circulation Element Roadway Classifications of the City's General Plan.

The GB Capital Component would extend onto a portion of the SDG&E utility corridor, east of the existing marina. This area is designated for CT uses in City Planning Documents. The GB Capital Component improvements would be consistent with that use.

3.4.9 Summary of Project Components and Associated Planning Document Amendments

In summary, the proposed project includes the following main components:

- Balanced Plan
- GB Capital Component

- Pasha Rail Improvement Component
- Pasha Road Closures Component
- Bayshore Bikeway Component
- City Program – Development Component
- PMPA Component
- City Program – Plan Amendments Component

The proposed planning document amendments (i.e., the PMPA Component and City Program – Plan Amendments Component) are summarized in Table 3-8 for the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and City Program – Development Component.

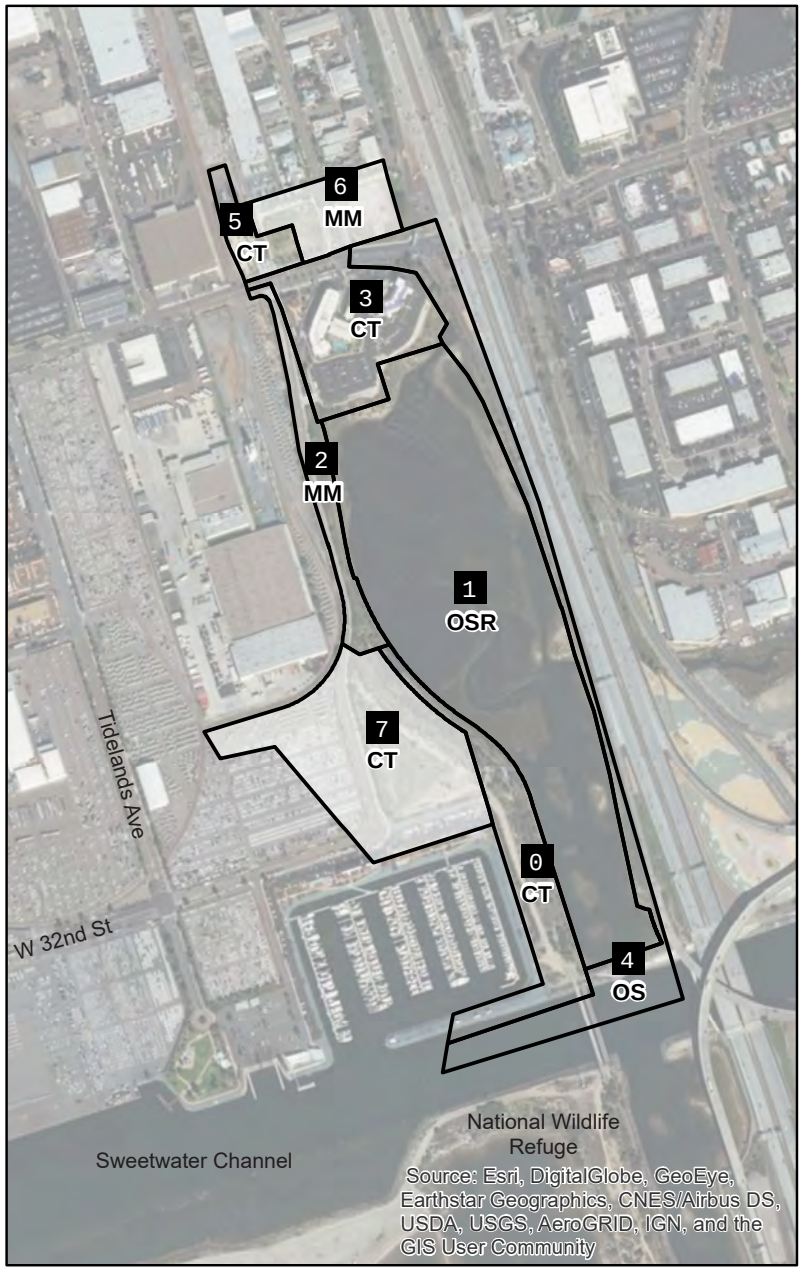
Table 3-8. Summary of Planning Document Amendments

	Existing		Proposed	
Project Component	Planning Document(s)	Land Use(s)	Planning Document	Land Use(s)
Balanced Plan	PMP; City General Plan, LCP, HDSAP, LUC, Bicycle Master Plan	*PMP*: Park/Plaza, Street, Commercial Recreation, Recreational Boat Berthing, Marine Terminal, Marine-Related Industrial, Promenade *City*: CT	PMP	*PMP*: Park/Plaza, Street, Commercial Recreation, Recreational Boat Berthing, Marine Terminal, Marine-Related Industrial, Open Space. Promenade
GB Capital Component[1]	PMP; City General Plan, LCP, HDSAP, LUC, Bicycle Master Plan	*PMP:* Commercial Recreation, Street, Marine-Related Industrial, Recreational Boat Berthing, Promenade *City*: CT	PMP	*PMP*: Commercial Recreation, Recreational Boat Berthing, Open Space, Promenade *City*: General Plan/ Zoning Map: San Diego Unified Port District; City LUC Official Zoning Map: PMP; HDSAP and LCP: Remove portions that are in District's jurisdiction
Pasha Rail Improvement Component	PMP; City General Plan, LCP, HDSAP, LUC	*PMP*: Marine-Related Industrial *City*: CT	PMP	*PMP*: Marine-Related Industrial
Pasha Road Closures Component	PMP	Street	PMP	Marine-Related Industrial

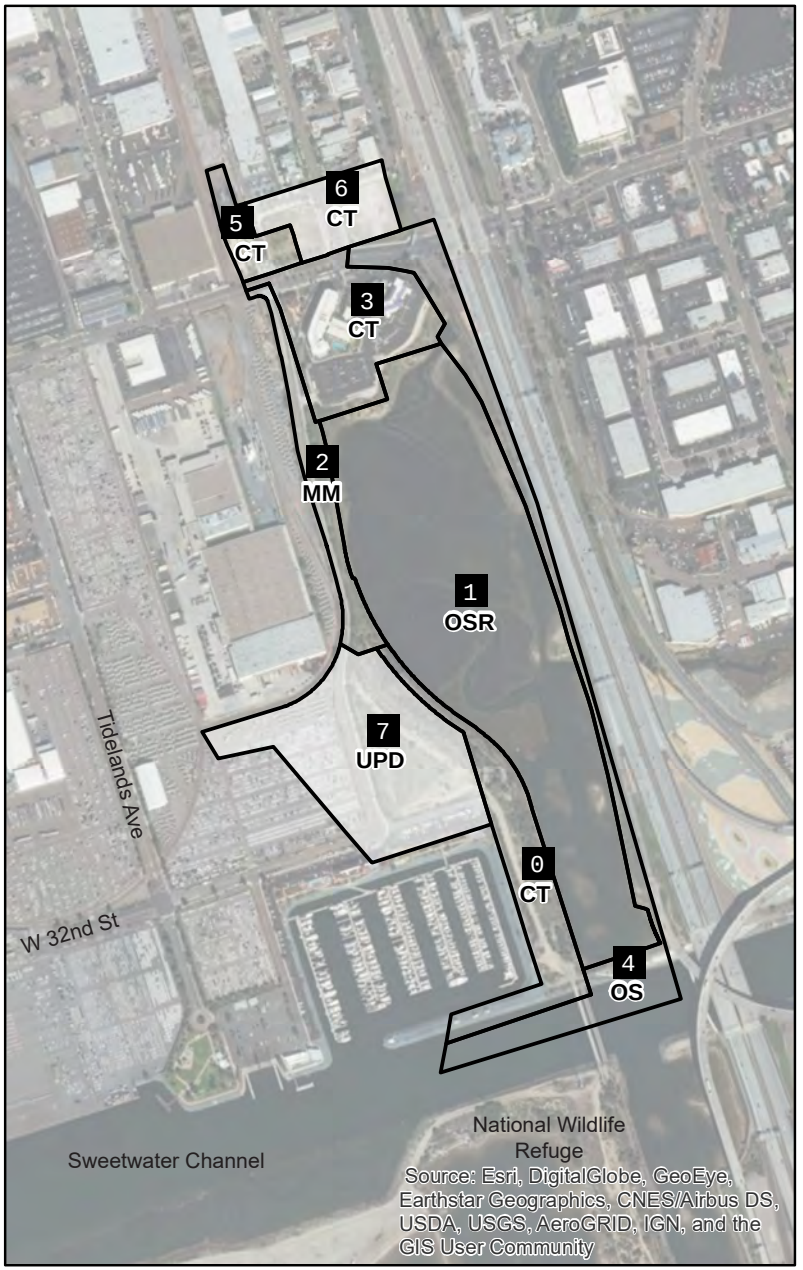
Project Component	Existing		Proposed	
	Planning Document(s)	Land Use(s)	Planning Document	Land Use(s)
City Program – Development Component	City General Plan, LCP, HDSAP, LUC	MM, CT	City General Plan, LCP, HDSAP, LUC	General Plan Land Use Map: Specific Plan; LUC Official Zoning Map: HDSAP; HDSAP: CT

[1] The GB Capital site is mostly within the Balanced Plan area.

A high-level summary of the proposed City Program – Plan Amendments Component is given in Table 3-9, and the existing and proposed use designations are identified in Table 3-10. The existing and proposed City zonings are shown on Figure 3-22, and the existing and proposed boundaries of the HDSAP are shown on Figure 3-23.



National City Existing Zones



National City Proposed Zones

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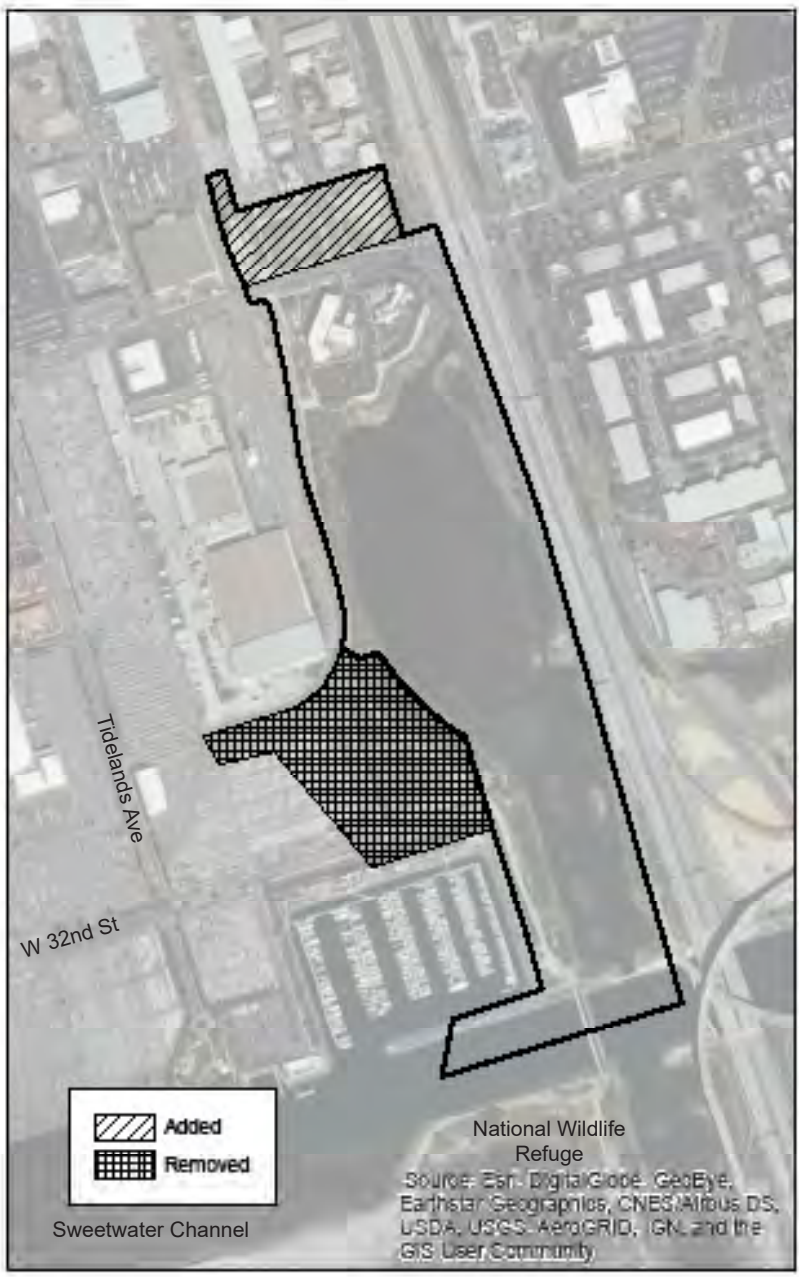
Figure 3-22
Existing and Proposed City Zoning
National City Bayfront Projects & Plan Amendments EIR



HDSAP Boundary Existing



HDSAP Boundary Proposed

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Figure 3-23
Existing and Proposed Boundaries of Harbor District Specific Area Plan
National City Bayfront Projects & Plan Amendments EIR

Table 3-9. Summary of City Program – Plan Amendments Component

ID[1]	Acres	Existing City Zoning	Proposed City Zoning	Currently in HDSAP?	Proposed in HDSAP?	Currently in PMP?	Proposed in PMP?
0	7.32	CT	CT	Y	Y	N	N
1[2]	37.48	OSR	OSR	Y	Y	N	N
2	3.65	MM	MM	Y	Y	N	N
3	8.47	CT	CT	Y	Y	N	N
4	10.65	OS	OS	Y	Y	N	N
5	2.02	CT	CT	N	Y	N	N
6	4.14	MM	CT	N	Y	N	N
7	13.98	CT	UPD	Y	N	N	Y
Total	87.71	--	--	--	--	--	--

[1] See Figure 3-21 for ID locations.
[2] This area is the Paradise Marsh, which falls within the HDSAP and LCP boundaries. This area is the Paradise Marsh unit of the Sweetwater National Wildlife Refuge and is not under the City's Coastal Development Permit Authority, and the proposed project does not involve any changes to this area.
OSR = Open Space Reserve; OS = Open Space; UPD = San Diego Unified Port District; Y = Yes; N = No

Table 3-10. Acreage Summary of City Program – Plan Amendments Component, per Designation

	OSR	OS	UPD	MM	CT
Existing	37.48	10.65	0.00	7.78	31.79
Proposed	37.48	10.65	13.98	3.65	21.94
Total	0.00	0.00	+13.98	-4.14	-9.85

OSR = Open Space Reserve; OS = Open Space; UPD = San Diego Unified Port District

3.5 Project Construction

The project components would be constructed in different phases, with many potentially overlapping. All construction activities would occur between 7 a.m. and 7 p.m., in compliance with City building codes and regulations. Construction staging would occur within the project site or on adjacent areas. Some demolition associated with the Balanced Plan would occur; however, no facilities would be demolished.

Standard construction equipment would be used, such as earthmoving equipment and pile drivers. Dewatering pumps, cranes, forklifts, concrete trucks, bulldozers, bobcats, excavators, backhoes, and concrete pump-towers would also be used. Several construction cranes may be set in place during construction to support steel beam placement and concrete pouring. The foundations for all major structures would be pile supported, similar to other bayside multi-story structures.

The types of construction materials and systems anticipated to be used for the project would include structural steel and concrete; electrical and mechanical systems; interior and finish materials; landscaping and security systems; and interior furnishings, fixtures, and equipment. Material deliveries would occur daily throughout the construction period.

Construction is anticipated to occur over two phases. The first phase would include all of the Balanced Plan improvements, all of the Phase 1 activities of the GB Capital Component, all of the Pasha Rail Improvement Component and Pasha Road Closures Component, and all of the Bayshore

Bikeway Component. This first phase is anticipated to be completed around 2022. The second phase would include Phase 2 of the GB Capital Component and the City Program – Development Component. For purposes of the environmental analysis, Phase 2 is anticipated to be completed around 2025 even though actual buildout of Phase 2 would be entirely dependent upon future market conditions.

Detailed construction information is included in Appendix F.

3.6 Project Review and Approvals

The District is the lead agency because it is the public agency with the greatest responsibility for supervising or approving the project as a whole. The District is responsible for permitting and carrying out the portions of the project within the District's jurisdiction. The City and California Coastal Commission are considered responsible agencies. Caltrans is also considered a responsible agency because approval from Caltrans would be required in order for GB Capital to use the Caltrans property south of the marina.

The following permits and approvals would be required to implement the proposed project.

3.6.1 San Diego Unified Port District

- Certification of the final EIR
- Adoption of the mitigation monitoring and reporting program
- Adoption of the Findings of Fact
- Adoption of the Statement of Overriding Considerations, if applicable
- Approval and adoption of a PMPA
- Concept approval of the proposed project components within District jurisdiction
- Authorization of issuance of CDPs for proposed project components within District jurisdiction
- Approval of various real estate agreements (e.g., new lease, lease amendment, tideland use and occupancy permit, easement) associated with implementing project components

3.6.2 City of National City

- Certification of the Final EIR for portions with City discretionary authority
- Adoption of the mitigation monitoring and reporting program for portions with City discretionary authority
- Adoption of the Findings of Fact for portions with City discretionary authority
- Adoption of the Statement of Overriding Considerations, if applicable, for portions with City discretionary authority
- Approval of amendments to the City's General Plan, LUC, LCP, and HDSAP
- Authorization of issuance of CDP(s) for proposed project components within City jurisdiction

- Issuance of other discretionary permits (e.g., conditional use permit, street vacation) and ministerial permits (e.g., grading, building, electrical)

3.6.3 California Coastal Commission

- Certification of, and final action on, the PMPA
- Certification of amendments to LCP, General Plan, LUC, and HDSAP

3.6.4 Caltrans

- Certification of the Final EIR for portions with Caltrans discretionary authority
- Adoption of the mitigation monitoring and reporting program for portions with Caltrans discretionary authority
- Adoption of the Findings of Fact for portions with Caltrans discretionary authority
- Adoption of the Statement of Overriding Considerations, if applicable, for portions with Caltrans discretionary authority
- Approval of sublease, lease, or sale to the District for the GB Capital Component located on the Caltrans property on the eastern half of jetty

3.6.5 Resource Agencies

A review and issuance of permits from the following resource agencies may be required for implementation of the proposed project:

- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Fish and Wildlife Service
- California Department of Fish and Wildlife
- San Diego Regional Water Quality Control Board
- National Marine Fisheries Service

3.6.6 Other Agency Involvement

A review and issuance of permits, leases, or other approvals from the following entities may be required for implementation of the specific project components:

- Federal Aviation Administration for the Balanced Plan, GB Capital Component, Bayshore Bikeway Component, Pasha Rail Improvement Component, and City Program – Development Component
- SANDAG for Bayshore Bikeway Component
- SDG&E for the portion of GB Capital Component on SDG&E property east of the marina
- Metropolitan Transit System (MTS) approval of construction and utilization of (inactive rail) MTS ROW south of Bay Marina Drive for Bayshore Bikeway

Chapter 4
Environmental Analysis

Introduction

Sections 4.1 through 4.14 discuss the potential significant environmental effects resulting from implementation of the proposed project. Each section provides a description of existing site conditions relevant to the resource area, the criteria for determining significance of potential environmental impacts, analyses of the type and magnitude of environmental impacts, and feasible mitigation measures that would reduce or avoid significant environmental impacts.

Potential Environmental Impacts

This chapter provides an analysis of the following potential environmental impacts of the proposed project.

- 4.1, Aesthetics and Visual Resources
- 4.2, Air Quality and Health Risk
- 4.3, Biological Resources
- 4.4, Cultural Resources, Tribal Cultural Resources and Paleontological Resources
- 4.5, Energy
- 4.6, Greenhouse Gas Emissions and Climate Change
- 4.7, Hazards and Hazardous Materials
- 4.8, Hydrology and Water Quality
- 4.9, Land Use and Planning
- 4.10, Noise and Vibration
- 4.11 Population and Employment
- 4.12, Public Services and Recreation
- 4.13, Transportation, Circulation, and Parking
- 4.14, Utilities and Service Systems

It was determined in the NOP (Appendix A) that the proposed project would have no impact associated with the following topics: Agriculture and Forestry Resources; Geology and Soils; Mineral Resources; Housing; and Wildfire. These topics are described in Section 6.4, *Effects Not Found to Be Significant,* of this Draft EIR.

Format of the Environmental Analysis

Each of the 14 environmental topic sections of this chapter includes the following subsections.

Overview

This introductory section briefly describes the criteria considered in the particular resource section, identifies the resources used to compile the information presented for the environmental analysis, and summarizes the environmental effects of the proposed project and any feasible mitigation measures.

Existing Conditions

According to Section 15125 of the State CEQA Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of a project to provide the "baseline condition" against which project-related impacts are compared. Normally, the baseline condition is the physical condition that exists when the NOP is published; however, a different baseline may be used in specific cases where it is deemed appropriate. Unless otherwise indicated, the environmental setting described in each of the following sections will be that which existed on the date the NOP was published.

Applicable Laws and Regulations

This subsection provides a summary of regulations, plans, policies, and laws at the federal, state, and local levels that are relevant to proposed project as they relate to the particular environmental resource area in discussion. To the extent applicable laws and regulations impose a mandatory obligation, compliance is assumed in the *Project Impact Analysis* because it is required by law and specified in a tenant lease, and mitigation would generally not be required when an existing law or regulation would ensure that a significant impact would not occur.

Project Impact Analysis

This subsection describes the methodology used for the analysis of the potential environmental impacts of the proposed project; identifies the criteria for determining the significance of potential impacts; and states a conclusion as to whether the environmental impacts would be considered significant and unavoidable, less than significant with mitigation incorporated, or less than significant (see definitions below). Each topic analyzed is divided into specific issues, based on potential impacts, and is separated by construction and operation impacts wherever relevant. The discussion of potential impacts is based on the applicable threshold of significance (see below) for each issue. Where potential impacts are significant, mitigation measures are identified, as feasible, to minimize, rectify, reduce, eliminate, or compensate for the significant impacts with the goal of reaching a less-than-significant impact determination.

Methodology

Each methodology subsection describes the means used to analyze potential impacts on a particular resource, discussing the steps followed and listing any studies relied on for arriving at conclusions as to significance.

Thresholds of Significance

Thresholds of significance are criteria used to assess whether potential environmental effects are significant. The significance criteria used in this analysis are primarily based on the recommendations provided in Appendix G of the State CEQA Guidelines. The thresholds of significance define the type, amount, and/or extent of impact that would be considered a significant adverse change in the environment. The thresholds of significance for some environmental topics, such as air quality and noise, are quantitative, while those for other topics, such as visual quality, are qualitative. The thresholds of significance are intended to assist the reader in understanding how an impact is determined to be significant.

Project Impacts and Mitigation

The analysis of environmental impacts considers both the construction and operation of the proposed project. As required by Section 15126.2(a) of the State CEQA Guidelines, direct, indirect, short-term, long-term, onsite, and/or offsite impacts are addressed, as appropriate, for the environmental issue being analyzed. This EIR utilizes the following terms to describe the level of significance of impacts identified during the course of the environmental analysis.

No Impact: This term is used when the project's construction and/or operation would have no adverse effect on a resource.

Less than Significant: This term is used to refer to impacts resulting from implementation of the proposed project that are not likely to exceed the defined thresholds of significance, and potentially significant impacts that are reduced to a level that does not exceed the defined thresholds of significance after implementation of mitigation measures. In the latter case, the determination may also be stated as "less than significant with mitigation incorporated."

Significant: This term is often used to refer to impacts resulting from implementation of the proposed project that exceed the defined thresholds of significance and can be applied before identification of any mitigation measures. A *significant effect* is defined by Section 15382 of the State CEQA Guidelines as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment [but] may be considered in determining whether the physical change is significant." For impacts that exceed a threshold of significance, feasible mitigation measures that avoid or reduce the potential impact are identified, which may cause the impact to be reclassified as less than significant if it is sufficiently reduced, or the impact may remain significant, in which case it is referred to as a significant and unavoidable impact (or unavoidable significant impact).

Significant and Unavoidable: This term is used to refer to significant impacts resulting from implementation of the proposed project that cannot be eliminated or reduced to below standards of significance through implementation of feasible mitigation measures.

Mitigation Measures. Section 15126.4 of the State CEQA Guidelines requires an EIR to "describe feasible measures which could minimize significant adverse impacts." Mitigation includes avoiding an impact altogether, minimizing impacts, rectifying impacts, reducing or eliminating impacts over time, or compensating for impacts by replacing or providing substitute resources. The State CEQA Guidelines define feasibility as "capable of being accomplished in a successful manner within a

reasonable period of time taking into account economic, legal, social, technological, or other considerations." This subsection lists the mitigation measures that could reduce the severity of impacts identified in the *Project Impact Analysis* subsection. Mitigation measures are the specific environmental requirements for construction or operation of the proposed project that will be included in the Mitigation Monitoring and Reporting Program and adopted as conditions of approval of the proposed project.

4.1.1 Overview

This section describes the existing aesthetic and visual conditions that the proposed project could affect adversely, discusses the applicable laws and regulations related to aesthetics and visual quality, and analyzes the proposed project's effect on (1) designated scenic views, (2) scenic resources from a designated highway, (3) the existing visual character of the site and its surroundings, and (4) day and nighttime views affected by introducing light or glare.

Visual concepts and terminology are presented below. For an explanation of viewer sensitivity and the process used to select the Key Observation Points (KOPs) for the impact analysis, please see Section 4.1.4.1, *Methodology*. As discussed in Section 4.1.4, *Project Impact Analysis*, construction and operation of the proposed project would result in a significant and unavoidable impact related to the existing visual quality of the site and its surroundings.

Table 4.1-1 summarizes the significant impacts and mitigation measures discussed in Section 4.1.4.3, *Project Impacts and Mitigation*.

Table 4.1-1. Summary of Significant Aesthetics and Visual Resources Impacts and Mitigation Measures

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-AES-1: Obstructed Views Within a Scenic Vista During Project Construction (GB Capital Component)	**MM-AES-1:** Install Construction Screening and Fencing (GB Capital Component) **MM-AES-2:** Install Wayfinding and Public Access Signage (GB Capital Component)	Less than Significant	**MM-AES-1** would reduce impacts on existing views associated with construction activities, and **MM-AES-2** would provide other available, replacement views.
Impact-AES-2: Inaccessibility of a Vista Area During Project Construction (GB Capital Component)	**MM-AES-3:** Establish a Temporary Scenic Vista (GB Capital Component)	Less than Significant	**MM-AES-3** would establish a temporary scenic vista accessible to the public throughout the entirety of the proposed project's construction phase.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-AES-3: Reduction in Availability of Existing Views (GB Capital Component)	**MM-AES-4**: Install Permanent Wayfinding Signage for Open Space Area on Jetty (GB Capital Component) **MM-AES-5:** Extend the Existing Clear Zone Across Jetty (GB Capital Component)	Less than Significant	**MM-AES-4** would reduce potential impacts on KOP 2 by providing wayfinding signage to a similar vista. **MM-AES-5** would require a minimum 20-foot-wide clear zone along the existing Pier 32 overlook southward across the jetty to protect the view corridor.
Impact-AES-4: Detrimental Change to Pepper Park from the Relocation of Granger Hall (Pepper Park Expansion of Balanced Plan)	**MM-AES-6:** Site Granger Hall to Reduce Impacts (Pepper Park Expansion of Balanced Plan)	Less than Significant	**MM-AES-6** would reduce impacts on the visual quality of the potential Granger Hall relocation to Pepper Park because the mitigation measure requires Granger Hall (if the District chooses to relocate Granger Hall to Pepper Park) to be located away from the waterfront and not within any existing or proposed view corridors or public-access corridors.
Impact-AES-5: Development of the GB Capital Component Would Potentially Affect Visual Character Within the Pier 32 Marina (GB Capital Component)	**MM-AES-7:** Design the GB Capital Component to Provide Continuity (GB Capital Component)	Less than Significant	**MM-AES-7** would ensure that the GB Capital Component design would use a similar architectural style and materials as the existing Pier 32 Marina to provide a natural continuity with the existing marina complex.
Impact-AES-6: Reduction in Nighttime Views Due to Additional Lighting (GB Capital Component)	**MM-AES-8:** Limit Lighting (GB Capital Component) **MM-AES-9:** Shield Security and Safety Lighting (GB Capital Component)	Less than Significant	**MM-AES-8** and **MM-AES-9** would require the incorporation of lighting features that would reduce light spillage to adjacent land uses, thus reducing the potential impact on nighttime views to less than significant.

4.1.1.1 Concepts and Terminology

This section defines the key concepts and terminology used to describe existing aesthetic and visual resource conditions or the change in existing conditions after project implementation. Although there may be more than one definition for any of the terms below, these common definitions are used for analytical consistency.

Views refer to visual access and obstruction or whether it is possible to see a focal point or panoramic scene from an area. Views may be discussed in terms of foreground, middleground, and

background. *Foreground* views are those immediately presented to the viewer and include objects at close range that may tend to dominate the view. *Middleground* views occupy the center of the viewshed and tend to include objects that are the center of attention if they are sufficiently large or visibly different from adjacent visual features. *Background* views include distant objects and other objects that make up the horizon. Objects in the background eventually fade to obscurity with increasing distance. In the context of background, the skyline or the ocean can be an important visual feature because objects above this point are highlighted against the background of the sky or water. These *skylined* elements are typically more evident to the viewer because of their inherent contrast.

Visual quality is evaluated based on the relative degree of vividness, intactness, and unity within a landscape, as modified by viewer preference and sensitivity. *Vividness* is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns. *Intactness* is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements; this factor can be present in well-kept urban and rural landscapes and in natural settings. *Unity* is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the landscape. *High-quality* views are highly vivid and relatively intact and exhibit a high degree of visual unity. *Low-quality* views lack vividness, are not visually intact, and possess a low degree of visual unity (FHWA 1981).

The following additional definitions pertain to terminology used in visual analysis.

- *Aesthetics* generally refers to the identification of visual resources and the quality of what can be seen or the overall visual perception of the environment.
- *Key Observation Point* (KOP) is a viewing area selected by evaluating an area's scenic quality, visual sensitivity, and viewer response. Project visual simulations are often created from these points. The KOPs selected for the proposed project are described in Section 4.1.4.1, *Methodology*.
- *Viewer sensitivity*, or viewer concern about noticeable changes to views, is based on the visibility of a scenic resource, proximity of viewers to the resource, relative elevation of viewers to the resource, frequency and duration of views, number of viewers, and types and expectations of the viewers. This term is defined in greater detail in Section 4.1.4.1.
- *Viewshed* comprises all of the surface area visible from a particular location or sequence of locations (e.g., roadway or trail).

In addition to these standard terminologies and definitions, the PMP includes another term, *Vista Areas*, which are "points of natural visual beauty, photo vantage points, and other panoramas" (District 2012).

4.1.2 Existing Conditions

4.1.2.1 Existing Visual Character

The project area is located in National City and on District tidelands; certain components are within the District's jurisdiction, whereas others are within the City's jurisdiction (see Figure 2-3 in Chapter 2, *Environmental Setting*). Several different land uses and improvements currently occupy

the project area, including recreational facilities, surface parking, a marina, roadways, and vacant lots. Most project components are adjacent to the maritime industrial uses of the National City Bayfront. As a working waterfront, the National City Bayfront is characterized by wide-open storage areas sporadically interrupted by warehouses, railroad tracks, and the street network. Large cargo ships are frequently visible berthed along the waterfront, as are large trucks used for the transport of unloaded goods. The project components are concentrated in two disconnected locations: the northern portion and the southern portion. The *southern portion* of the project site is where the Balanced Plan, GB Capital Component, Pepper Park expansion, Pasha Rail Improvement Component, and Pasha Road Closure Component are located; the *northern portion* is where the City Program – Development Component is located. The proposed Bayshore Bikeway Component, which is sited along public roads, begins north of the northern portion and terminates at the southern portion.

The southern portion of the project site is north of and adjacent to Sweetwater Channel and includes Pier 32 Marina, Pepper Park, Pasha facilities, a vacant lot, and public road right-of-way (ROW).

The Pier 32 Marina site currently consists of the waterside marina with docks and 250 boat slips and associated landside facilities, including parking and boat storage, a restaurant, club house, pool deck, and landscaped areas. The marina primarily houses personal recreational vessels, including cabin cruisers, speed boats, fishing boats, sailboats, and yachts. Pier 32 Marina is characterized visually by modern architecture and landscaping and views of docked boats and open water. The landside development of Pier 32 Marina is situated within a long and narrow parcel, oriented along an eastern–western access, with the ingress/egress access and parking fronting Marina Way/32nd Street, and the marina building and amenities (e.g., putting green, viewing deck, pool) abutting the marina. The marina building is a three-story building displaying modern design that makes extensive use of wood siding, corrugated metal (for the roof), and a roof shed with clerestory windows. The building features several deck and patio areas and utilizes large windows and doorways to connect the indoor and outdoor areas. Landscaping consists mostly of small, green lawns, pockets of drought-tolerant vegetation, small ornamental trees, and palm trees.

Pepper Park consists of a paved parking lot, a pier platforming facility, a fishing pier, and a grass-covered park area. The park area features several visitor-serving amenities, including public restrooms, picnic tables, benches, and a playground. Pepper Park is characterized by views of open space, ornamental trees, and Sweetwater Channel. The National City Aquatic Center is located within Pepper Park and adjacent to the Pier 32 Marina. The waterside portion of the project would occur in Sweetwater Channel, which is a narrow, open waterway that connects to San Diego Bay and flows inland for approximately 2 miles. The banks of Sweetwater Channel are lined with riprap and low vegetation.

The visual character of the Pasha facilities is defined by the industrial uses that occupy the site, consistent with the surrounding National City Marine Terminal (NCMT). The Pasha facilities include surface parking lots utilized for marine terminal operations—which, in the case of the Pasha operations, means that the lots are often filled with vehicles that serve as storage areas for imported vehicles—and a railroad track connecting the Pasha property to the BNSF National City Yard. The parking lots are surrounded by chain-link fencing and sparse landscaping and have down-shaded outdoor lighting throughout. There are no structures (e.g., parking attendant booths) in these parking lots.

Marina Way abuts the Pasha facilities to the east and generally traverses north–south through the southern project area until it meets the Pier 32 Marina, where it turns to the west and becomes

32nd Street, and then continues toward its terminus at Terminal Avenue. Marina Way has one lane in each direction and allows parallel street parking on the southernmost quarter of the street. The general level of use for both pedestrians and vehicles is considered low. Marina Way is bordered by curbs, landscaping, and stylized lampposts on both sides, followed by a cement sidewalk to the east. The roadway is hemmed in by chain-link fences on both project sites. Dense vegetation and glimpses of Paradise Marsh Wildlife Refuge are visible through the chain-link fence to the east, and a surface parking lot is visible through the chain-link fence to the west. The east end of 32nd Street is characterized by the Pier 32 Marina development to the south and Pasha's storage parking lots to the north. Stylized lampposts line the street, along with a pedestrian sidewalk to the south. Limited landscaping is present along both sides of the street. The west end of 32nd Street is bordered by Pasha parking lots on both sides, standard street lighting, and sparse vegetation. Parcel B6, currently vacant, consists of vegetated and disturbed land, with an electric transmission line traversing the southern portion of the parcel.

The northern portion of the project site consists of seven parcels north of Bay Marina Drive, disconnected from the southern portion of the project site. Parcels 1 through 6 currently comprise two vacant lots between Bay Marina Drive and West 23rd Street, with Cleveland Avenue dividing the two lots. Parcel 7 contains the historic National City Santa Fe Depot, presently operated as the National City Depot Museum. The railroad depot building is a two-story, Italianate-style rectangular building with a low-pitched roof and shiplap cladding. The parcel consists of the depot building, several historic railcars, and a staging area for vehicles and equipment. The streets within the northern portion of the project site are well maintained, landscaped with palm trees, and lined with stylized lampposts. The visual character is generally defined by the vacant land and historic land uses.

The remainder of the project site comprises three potential alignments for the Bayshore Bikeway. All three alignments begin just south of Civic Center Drive. Bayshore Bikeway Routes 1 and 3 would travel along McKinley Avenue, which is characterized by commercial development and interspersed small single- and multi-family residential lots to the west, and Interstate (I-)5 to the east. Bayshore Bikeway Route 2 would follow along Tidelands Avenue until West 19th Street, where it would turn to the east, and continue until Cleveland Avenue, where it would turn south. This portion of Route 2 is characterized by maritime industrial-related land uses, including warehouses, parking lots, staging areas, and single-story office buildings. The three routes would then traverse the northern portion of the project site, and then travel along Marina Way to the southern portion of the project site. Near its intersection with Bay Marina Drive, Marina Way is characterized by commercial (e.g., hotel, restaurant) uses, the industrial uses of Pasha's National Distribution Center to the west, and natural vegetation associated with Paradise Marsh Wildlife Refuge, to the east. The visual character of each roadway along the proposed routes is described in more detail below.

- Bayshore Bikeway Route 1 Roadways
    - *Cleveland Avenue* has one lane for each direction with a center turn lane. There are sidewalks on both sides, parallel street parking on the western side of the street, and an exit ramp from I-5 on the eastern side. Bordering the avenue are one-story commercial buildings for recycling and manufacturing. This street is not heavily trafficked by vehicles or pedestrians.
    - *West 14th Street* and *McKinley Avenue* have one lane for each direction of traffic. West 14th Street has parallel parking on both sides, and McKinley Avenue allows pull-in parking on the east side of the street and parallel parking on the west side. Sidewalks border both sides.

Between the neighborhood streets and I-5, a grass-covered median borders the north and east sides of the street, separated from the sidewalk by chain-link fencing and containing some landscaping trees. Mature trees, also present within the narrow median between the street and the sidewalks on both sides, provide shade for the street. The adjacent buildings on the west side of the street are primarily commercial/industrial one-story buildings and warehouses (e.g., metal manufacturer, ship repair business), interrupted sporadically by single-family homes and multi-family residential buildings (e.g., a two-story apartment complex). Parking is generally full, but vehicle and pedestrian traffic is light.

- *West 23rd Street* has one lane each way and parallel parking on both sides of the street. The street is bordered by mature palm trees and wide sidewalks on each side. Adjacently north, the properties consist of commercial buildings and surface parking lots, and adjacently south are two vacant lots with overgrown vegetation. The street is not trafficked heavily by vehicles or pedestrians.
- *Harrison Avenue (now Marina Way)* is a two-way, dead-end street with pull-in parking on both sides of the street that serves as access to the National City Depot Museum. There are sidewalks on both sides, with streetlamps, and a concrete plaza at the dead-end, with two rows of mature palm trees. There are also ornamental trees between parking spots along both sides of the street. Adjacently west of Harrison Avenue (now Marina Way) is the National City Depot Museum and associated historic train displays. Adjacently east is a vacant lot with overgrown vegetation. Vehicle and pedestrian traffic is low.
- *Marina Way* has one lane each way and is bordered by a landscaped median and a wide sidewalk to the east and non-landscaped vegetation and fencing to the west. Street lighting lines the street on both sides until it meets Pier 32 Marina at the southern terminus. Adjacently west of Marina Way is a railyard and goods-distribution facilities associated with NCMT. Adjacently east is visitor-serving commercial development (e.g., hotel, restaurant) and surface parking in the northern portion and Paradise Marsh along the central portion. Paradise Marsh is not visible from Marina Way because of tall, intervening vegetation. Route 1 of the Proposed Bayshore Bikeway would follow the former railroad tracks within the boundaries of Paradise Marsh until it met the existing Bayshore Bikeway segment at the southern end of Paradise Marsh. A vacant lot populated with sparse vegetation is adjacently east of the southern portion of Marina Way, between Marina Way and Paradise Marsh. This portion of the proposed Route 1 is not currently highly trafficked by vehicles or pedestrians.

- Bayshore Bikeway Route 2 Roadways
  - Route 2 would traverse Tidelands Avenue from Civic Center Drive to West 19th Street. Tidelands Avenue has one lane in each direction, with parallel parking available on both sides for the majority of the route. A Class I bike path is available for approximately 1,000 feet of the northern portion of Tidelands Avenue and a Class II bike path for the rest of Tidelands Avenue, ending at 32nd Street. The properties on both sides of Tidelands Avenue are occupied by marine-related commercial uses, including parking lots for vehicle storage, distribution centers, and a District office building. Traffic along Tidelands Avenue is moderate; the existing bike paths are used frequently as a connector to the Bayshore Bikeway, and the roadway has moderate traffic from vehicles, delivery trucks, and 18-wheelers. Some landscaping is present along property boundaries bordering Tidelands Avenue, but the overall character of the roadway is of commercial and marine-related services.

- *West 19th Street* has two lanes each way and is bound by sidewalks on each side. Two railroad tracks cross West 19th Street at its intersection with Tidelands Avenue and halfway through the block between Haffley Avenue and Cleveland Avenue. The land uses adjacent to West 19th Street consist of one-story commercial buildings and surface parking. Several properties are fenced in, and sparse landscaping currently lines the street.
- *Cleveland Avenue* has one lane in each direction, with a center turning lane, and allows parallel parking on both sides of the roadway. Cleveland Avenue is bordered by vegetated medians and sidewalks along both the east and west sides. The adjacent properties consist of one-story sheds, warehouses, and buildings for industrial and manufacturing uses, open staging areas and parking lots, a few two-story buildings for commercial or industrial uses, and a few single-family homes. Cleveland Avenue ends at the intersection with Bay Marina Drive, at an existing visitor-serving commercially developed area (including a hotel and a restaurant).
- Proposed Route 2 of the Bayshore Bikeway would traverse Marina Way from the commercial buildings at Cleveland Avenue to the existing Bayshore Bikeway at the southern end of Marina Way. Marina Way is as described above for Route 1 Roadways.

- Bayshore Bikeway Route 3 Roadways
  - Route 3 would connect to the existing Class I bike path at the western end of Civic Center Drive, traverse to the east, and then turn to the south along the southbound on-ramp to I-5 to connect to McKinley Avenue. From there, Route 3 would traverse south along McKinley Avenue until it meets Bay Marina Drive, where it would head west for two blocks. At that point, Route 3 would be located along the sidewalk adjacently east of Marina Way and bisect the vacant lot (Balanced Plan Parcel B6) before connecting with the existing Bayshore Bikeway at the southern end of Paradise Marsh Wildlife Refuge. The visual character of the roadways are described above for Route 1 Roadways.

The visual character of the areas surrounding the project site is defined primarily by transportation and industrial uses of the NCMT to the west; the open, vegetated land of the Paradise Marsh Wildlife Refuge and I-5 to the east, Sweetwater Channel and National Wildlife Refuge to the south, and commercial, industrial, and residential uses to the north. The industrial land uses consist of NCMT, San Diego Cold Storage, ProBuild/Dixieline Lumber, and Pasha's National Distribution Center. These land uses primarily consist of warehouses, staging areas, and surface parking lots and generally are not considered heavy industrial uses (e.g., factories, refineries). The transportation-related uses are trucking facilities, railroads, and shipping facilities. The commercial uses to the north include automobile repair shops, a surplus store, a metal fabricator, and a food wholesaler. These commercial uses are typically one- or two-story warehouse or office buildings. Single-family homes and multi-family units are interspersed amongst the commercial development along McKinley Avenue. Commercial uses also include a small visitor-serving area consisting of the Best Western Plus Marina Gateway Hotel and the former Goodies Bar and Grill restaurant just north of Paradise Marsh National Wildlife Refuge. To the east, I-5 borders the project area, followed by railroad tracks, and a warehouse district. South of the project site lies Sweetwater Channel and the protected habitat of the San Diego Bay Wildlife Refuge and the Living Coast Discovery Center.

4.1.2.2 Designated Scenic Views

The PMP considers the scenic quality of the land within the District's jurisdiction and establishes District policies for important public views. Within many of its precise plans, the District has identified *vista areas*—key public viewpoints from which to enjoy the scenic beauty of San Diego Bay and other visible District features. The PMP states that "vista areas include points of natural visual beauty, photo vantage points, and other panoramas" (District 2020). Vista areas within the District's jurisdiction are identified on the PMP's precise plans by arrow symbols placed on the vista areas that point toward the intended view. The Public Recreation portion of Section III of the PMP explains that it is the intent of the PMP to guide development at vista areas to preserve and enhance them (District 2012).

The PMP identifies one designated vista area in Planning District 5 (National City Bayfront)—in which the project site is located—in the western portion of Pepper Park, facing southwest across Sweetwater Channel and toward the San Diego Bay National Wildlife Refuge (see Figure 4.1-1).

The closest designated scenic vista to the project site is within Planning District 7 (Chula Vista Bayfront), approximately 1.3 miles south, looking north toward the project area. Planning District 8 (Silver Strand South) contains a scenic vista approximately 2 miles southwest of the project site, looking east, with a panoramic view of the Bay, including Chula Vista Bayfront, National City Bayfront, and downtown San Diego. This vista would provide a view of the project site to the northeast as part of a wide-background cityscape view.

Although not identified in the PMP, an existing 20-foot-wide view corridor/clear zone is required to be maintained, pursuant to the Pier 32 Marina Coastal Development Permit (District CDP-2006-02), at the existing terminus of Marina Way, looking south through the site toward the Pier 32 overlook and marina. In addition, the existing alignment of Marina Way is identified as the Harrison Avenue (now Marina Way) Public Access Corridor in the City's Harbor District Specific Area Plan (HDSAP) and, per that plan, is a "designated public visual protection area." No scenic vistas or viewsheds are identified in the City of National City General Plan or LCP.



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Figure 4.1-1
Port Master Plan Vista Areas Location Map
National City Bayfront Projects & Plan Amendments EIR

4.1.2.3 Scenic Highways

The nearest designated scenic highway to the project site is SR-75, which travels in a north–south direction from Coronado to Imperial Beach along the Silver Strand. SR-75 is approximately 2 miles west of the project site, across San Diego Bay. At this distance, some brief views of the National City Bayfront may be available on a clear day; however, the topography and development along the Silver Stand would block views substantially. Where views occur, they would be of a wide-background cityscape, and the project elements would be difficult to discern. Additionally, SR-75 travels from Coronado, across the Coronado Bridge, to the City of San Diego. However, views are not readily available from the Coronado Bridge because it is only open to motor vehicles, there are no pullouts for viewing, and stopping on the bridge is prohibited by law. Also, the Coronado Bridge has a speed limit of 50 miles per hour and a concrete guardrail that limits the view in lower-profile vehicles. Other designated scenic highways, such as portions of SR-52, SR-78, SR-94, SR-125, and SR-163, are several miles from the project site and do not have views of the project sites.

4.1.2.4 Other Public Views to the Project Site

Aside from views from the PMP-designated vista areas and from the public scenic highway described above, the principal public viewer groups for the proposed project include motorists and pedestrians within public roadways and ROWs and bayfront tourists and recreationists,[1] such as visitors to the San Diego Bay National Wildlife Refuge, users of the Bayshore Bikeway and Pepper Park, and boaters in the Bay and the marina. Recreational land uses and public roadways and ROWs would provide these public viewer groups with views of the project site.

Recreational Land Uses

Recreational land uses within the surrounding area provide recreationists with public views of the project site. Recreational land uses include a segment of the Bayshore Bikeway, which currently traverses from the intersection of E Street and Bay Boulevard, across Sweetwater Channel, and ends in the eastern portion of the project site where Marina Way turns into 32nd Street. The Bayshore Bikeway provides users, including bicyclists, walkers, and runners, views of Sweetwater Channel, Paradise Marsh National Wildlife Refuge, and Pier 32 Marina. Because of intervening landscape and other structures, the project site is only partially visible from the Bayshore Bikeway. The primary features of the project site that are visible are the masts of the sailboats in the Pier 32 Marina and the Marina building. (See the discussion of KOPs under Section 4.1.4.1.)

Public Roadways and Rights-of-Way

Marina Way runs generally north–south through the project site and provides the main access to the GB Capital Component site. Several project components are fully visible from Marina Way: views of the City Program – Development Component parcels are available to the north of the intersection of Marina Way and Bay Marina Drive, and views of the Pier 32 and GP Capital Component project site are at the southern end of Marina Way. The Pasha Rail Improvement and Road Closures

[1] The term *recreationist* is used to distinguish the sub-group of viewers who organize their recreational activities around experiencing the visual environment from those viewers who are engaged in competitive sports activities. Viewers engaged in most active recreation, such as playing sports, tend to have only average sensitivity to visual quality and visual change. Although they are aware of their surroundings, they are usually focused on the activity itself, rather than surrounding views.

Components are visible to the west, and the site of the southern portion of the Bayshore Bikeway Component is visible to the east. The City Program – Development Component is also visible from the southern end of Cleveland Avenue, McKinley Avenue where it turns to the west, and the I-5 southbound off-ramp. Tidelands Avenue provides access to the Pasha Rail Improvement Component and is part of the Pasha Road Closure Component project site. Boat access from Sweetwater Channel would also provide views of the project site.

4.1.2.5 Light and Glare

There are two typical types of light intrusion. First, light emanates from the interior of structures and passes out through windows. Second, light projects from exterior sources, such as street, security, and landscape lighting. *Light spillover* is typically defined as the presence of unwanted or misdirected light on properties adjacent to the property being illuminated. Light spillover can be a nuisance to adjacent areas and diminish views of the clear night sky. *Glare* is described as the distraction, discomfort, or impairment of vision caused by extreme contrasts in the field of vision, where light sources such as sunlight, lamps, luminaries, or reflecting surfaces are excessively bright in relation to the general brightness of surroundings. Glare also results from sunlight reflecting off flat building surfaces, with glass typically contributing the highest degree of reflectivity.

Project Site

Existing Light

The project site currently contains exterior light sources in several of the project components. The Pasha project site contains floodlights distributed sporadically throughout the existing parking lots. Downturned peripheral lighting is located along the sidewalks of Marina Way, in the Pier 32 Marina developed area, and Pepper Park and the pier at the waterfront of the GB Capital Component. Streetlamps are present along Cleveland Avenue, West 23rd Street, Bay Marina Drive, and Harrison Avenue (now Marina Way), adjacent to the City Program – Development Component project site. Intermittent street lighting is present along McKinley Avenue along Bayshore Bikeway Routes 1 and 3. Street lighting is also present along Route 2 of the Bayshore Bikeway, from Tidelands Avenue to West 19th Street, to Cleveland Avenue.

Existing Glare

Existing sources of daytime glare on the project site include sunlight reflecting off parked cars in the Pasha parking lots or parked along the streets in or adjacent to the project site. In addition, daytime glare occurs from bidirectional transitory glare from cars and delivery trucks driving along the onsite or adjacent roadways. There is also glare off the surfaces of the boats moored at the Pier 32 docks. The existing structures on the project site, including the Pier 32 Marina building and restroom building at Pepper Park, do not have significant reflective architectural features. A primary source of daytime glare is sunlight reflecting off the open waters of Sweetwater Channel. Glare from horizontal water surfaces is most prevalent in the early and late portions of the day, when reflected sunlight is most likely to affect viewers. Other scattered sources of daytime glare are sunlight reflecting off the surfaces and windows of boats docked at the marina, which produces minor amounts of glare.

Offsite

Light

As described in Chapter 2, *Environmental Setting*, the area surrounding the project site is highly urbanized and supports a mixture of commercial, industrial, recreational, residential, and marine-related uses. The nighttime lighting environment surrounding the project site consists mainly of ambient light produced by shipping and distribution uses, interior and exterior building lighting (e.g., industrial, commercial), highly ordered/structured lighting from streetlights, and transitory lighting from vehicle and transit-related (i.e., train) headlights. I-5 is a significant source of nighttime vehicle headlights.

The surrounding surface parking lots have scattered light posts, with up to six floodlights per pole. The lights are generally down-tilted and facing toward the parking lots; they do not face offsite, although there is limited spillover of light to the adjacent properties. There is also lighting associated with the NCMT berthing operation, located west of the project site along the Bay; however, it does not contribute substantial lighting at the project area.

Nighttime lighting from vehicle (primarily passenger cars and delivery trucks) and train headlights contribute intermittent transitory lighting to the area. Vehicle headlights from the nearby I-5 contribute more constant nighttime lighting in the vicinity; however, because the highway traverses the vicinity in a north–south direction, the headlights do not shine directly at the project site. Paradise Marsh National Refuge serves as a dark buffer between I-5 and the project site. Overall, because portions of the project vicinity are developed with industrial and commercial uses, and portions are undeveloped and unlit, the existing ambient lighting levels are considered moderate.

Glare

The most notable source of offsite glare is from the cars parked in large surface parking lots associated with the NCMT. However, the majority of the vehicles are wrapped in protective sheeting that appears to reduce the glare from the glass and metal of the vehicles.

4.1.3 Applicable Laws and Regulations

4.1.3.1 State

California Scenic Highway Program

Caltrans manages the California Scenic Highway Program, which was created in 1963 by the California legislature to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. The program includes a list of highways eligible for designation as scenic highways or designated as such. A highway may be designated as *scenic* based on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes on the traveler's enjoyment of the view. State laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263.

California Coastal Act

The project site is located within the California Coastal Zone and is subject to the California Coastal Act (CCA). Pursuant to CCA Section 30715, the project is an "appealable development" and must be consistent with CCA Chapter 3 policies, which include those that address visual access to the coastal zone. Section 30251 states:

> The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance…[and] [p]ermitted development shall be sited and designed…to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.

4.1.3.2 Local

Port Master Plan

Section II of the PMP sets forth planning goals and related policies for development and operation of land within the District's jurisdiction. The goals and related policies pertinent to the aesthetic resources of the proposed project are presented below.

- **Goal II.** The Port District, as trustee for the people of the State of California, will administer the tidelands so as to provide the greatest economic, social, and aesthetic benefits to present and future generations**.**
- **Goal VIII.** The Port District will enhance and maintain the Bay and tidelands as an attractive physical and biological entity.
  - Each activity, development, and construction should be designed to best facilitate its particular function, which function should be integrated with and related to the site and surroundings of that activity.
  - Views should be enhanced through view corridors, the preservation of panoramas, accentuation of vistas, and shielding of the incongruous and inconsistent.
  - Establish guidelines and standards facilitating the retention and development of an aesthetically pleasing tideland environment free of noxious odors, excessive noise, and hazards to the health and welfare of the people of California.

Precise Plans

PMP Section IV provides specific guidance for land development within 10 geographic planning districts. These 10 precise plans include maps for each district, tables showing the acreages of various uses within the districts, and lists of projects planned within the districts. The precise plans also identify vista areas within each planning district that indicate points of natural visual beauty, photo vantage points, and other panoramas to be preserved and enhanced by the arrangement of development. As discussed under Section 4.1.2.1, *Existing Visual Character*, the project site is located within Planning District 5 (National City Bayfront). The PMP identifies one vista area in Planning District 5, at Pepper Park.

National City General Plan

Part Three of the *National City General Plan*, the Land Use Element, includes goals and policies intended to protect viewsheds in the City. The goal and related policies pertinent to the aesthetic resources are presented below.

- **Goal LU-12:** The preservation of scenic resources and significant viewsheds.
  - **Policy LU-12.1:** Encourage building placement, orientation, height, and mass to maintain and enhance views of San Diego Bay, open space, creeks, and other distinctive scenic resources.
  - **Policy LU-12.2:** Encourage the retention and enhancement of natural hillsides.
  - **Policy LU-12.3:** Maintain and enhance views of locally admired buildings such as historic structures and other visually appealing manmade features.

Harbor District Specific Area Plan

The National City HDSAP was prepared in 1998 to meet the requirements of the certified National City LCP. The Harbor District is bordered by 24th Street (now Bay Marina Drive) to the north, I-5 to the east, Sweetwater Channel to the south, and the railroad associated with the NCMT to the west. The Specific Area Plan designates subareas and implements the guidance of the certified LCP in regard to development, management of natural resources, and public access. The following Mandatory Visual Quality Standards of the Specific Area Plan apply to the aesthetic resources of the proposed project. The following excerpt is from Chapter 5, Sections 5.2.1, and 5.2.4, through 5.2.8 of the HDSAP, as certified by the CCC on November 11, 1998 (including any subsequent amendments).

- **Visual Protection Areas.** The following constitute designated public visual protection areas in which new development, unless specifically permitted, is prohibited:
  - Paradise Marsh habitat buffer and building setback areas, except as provided in Chapter 3
  - All delineated wetlands adjacent to Paradise Marsh, as shown on Figure 3.1, except as provided in Chapter 3
  - West 24th Street (Bay Marina Drive), between I-5 and Harrison Avenue (now Marina Way)
  - Harrison Avenue (now Marina Way) Public Access Corridor, between West 24th Street (Bay Marina Drive) and 32nd Street
  - Thirty-second Street, between Harrison Avenue (now Marina Way) and the historic Mean High Tide Line (Port District–National City jurisdictional boundary)
  - The vehicular accessway into Subarea A from the intersection of West 24th Street (Bay Marina Drive) and Cleveland Avenue (as shown in Figure 4.1)
  - The vista points, public parks, and plaza (shown on Figure 2.1), provided that incidental public access, view platform, or deck improvements shall be permitted, consistent with Chapter 3 standards
  - All public accessways, including bikeways (shown in Figure 2.1)
- **Marina Plaza.** The plaza at the foot of Harrison Avenue (now Marina Way), where it overlooks the proposed National City Marina, shall be designed, located, and maintained consistent with the following provisions:
  - Location and design shall enhance, and not block, public views from Harrison Avenue (now Marina Way), 32nd Street, and the extension of the Sweetwater River Bikeway to Pepper Park and the National City Marina.
  - Vegetation with aesthetically attractive native plants, consistent with the species list in Table 3.4, to help protect nearby environmentally sensitive habitats against invasive vegetation or avian predation. Palm trees shall be prohibited.
  - Night lighting shall be directed and shielded to avoid illumination of environmentally sensitive areas.

- The plaza shall be located completely within the jurisdiction of the City of National City.

- **Parks.** The Parks shown in Figure 2.1 shall be designed, located, and maintained consistent with the following standards:
  - Perimeter native landscape vegetation, consistent with the plants listed in Tables 3.4 and 3.5, provided that:
    - Vegetation along the West 24th Street (Bay Marina Drive) and Harrison Avenue (now Marina Way) boundaries of the Railcar Art Project shall not be of a height that will block visual continuity for motorists between the Harbor Gateway and Harrison Avenue (now Marina Way) Public Access Corridor.
    - Vegetation at the boundaries of the park at the apex of Subarea B shall not exceed a maximum of 6 feet above existing grade to avoid visual isolation of the park and introduction of new avian perches near Paradise Marsh, adjacent wetlands, and their buffers.
    - Vegetation at the park near the southeasterly corner of the Marina shall be located to afford views of the Marina and Sweetwater Channel, while screening views from the park of the SDG&E electric transmission towers to the maximum extent feasible; provided, that such vegetation shall not exceed a maximum of 6 feet above existing grade to avoid visual isolation of the park and introduction of new avian perches near Paradise Marsh, adjacent wetlands, and their buffers.
  - The parks may include turf areas, not to exceed 500 square feet in each park.
  - Park and landscape maintenance shall utilize best management practices, including integrated pest control, and avoid, or minimize, the utilization of chemical fertilizers, pesticides, and herbicides. Landscape management shall avoid runoff into, or sedimentation of, the National Wildlife Refuge, adjacent delineated wetlands, or wetland habitat buffers.

- **Tourist-Commercial Development: Subarea A.** Tourist–commercial development(s) and use(s) in Subarea A shall be designed, located, and maintained consistent with the following standards:
  - All structures and landscaping shall be located below the Marsh View Plane (see Figure 5.1), provided that all permitted tourist commercial buildings shall be terraced (stepped), as shown in Figure 4.1 and that underground automobile parking shall be preferred, if feasible.
  - All tourist commercial structures, including restaurant, lodging, or retail facilities, shall maintain a minimum 100-foot buffer from the property line of the National Wildlife Refuge, consistent with the standards of Chapter 3 and as shown in Figure 4.1.
  - Landscaping within 200 feet of Paradise Marsh, Paradise Creek, or any delineated wetland shall utilize native vegetation, eradicate all presently existing nonnative plant species in Subarea A, and limit the use of introduced species to those that are non-invasive of wetlands, consistent with the standards of Chapter 3.
  - Permitted development shall utilize buildings colors, materials, and textures that are compatible, and do not conflict, with the natural palette of Paradise Marsh, the Bay Point Formation, and the coastal San Diego County.
  - Landscaped visual areas shall be utilized between West 24th Street (Bay Marina Drive) and tourist commercial development in Subarea A, including as shown in Figure 2.2 Sections 1 and 2.
  - Building setbacks from the access driveway from West 24th Street (Bay Marina Drive) into Subarea A shall be as shown in Figure 4.1 (if it is constructed), including to provide an expanding public view corridor to the vista point and Paradise Marsh through the building

setback area. No buildings, structures, or landscaping that block(s) public views shall be permitted in the view corridor.

- Coastal development permit review of any structure in Subarea A shall include analysis and written findings of consistency with all of the standards of the Chapter and with Chapter 18.102 of the City's LUC.
- Consistent with Coastal Commission regulations, open space easements, to run with the land during the economic life of the approved development, shall be recorded for all visual protection areas, including, but not limited to public view corridors, accessways, and habitat buffer areas, as a condition of the coastal development permit.

- **Tourist-Commercial Development: Subarea B.** Tourist-commercial development(s) and use(s) in Subarea B shall be designed, located, and maintained consistent with the following standards:
  - All structures and landscaping shall be located below the Marsh View Plane (see Figure 5.1), provided that terraced (stepped) buildings shall be required, as shown in Figure 4.1.
  - All tourist commercial structures shall be set back a minimum 200 feet from the property line of the National Wildlife Refuge, provided that:
    - A commercial facility of up to 4,000 square feet, and not to exceed 18 feet in height above existing grade, that is oriented principally toward users of the Bikeways and pedestrian accessways may be located in the southeasterly park of Subarea B-1, consistent with all applicable standards of Chapter 3. Perch-proofing of the building shall be required.
    - Screened automobile parking shall not be permitted within 100 feet upland of a delineated wetland or within 10 feet of the landscaped westerly or easterly edge of the San Diego Bayshore Bikeway.
  - Landscaping within 200 feet of Paradise Marsh, Paradise Creek, or any delineated wetland shall utilize native vegetation, eradicate all presently existing nonnative plant species in Subarea B, and limit the use of introduced species to those that are non-invasive of wetlands, consistent with the standards of Chapter 3.
  - Permitted development shall utilize buildings colors, materials, and textures that are compatible, and do not conflict, with the natural palette of Paradise Marsh, the Bay Point Formation, and the coastal San Diego County.
  - Landscaped visual areas shall be utilized between Subarea B-1 and the adjacent San Diego Bayshore Bikeway, the Park at the apex of Subarea B, SDG&E electric transmission towers, and Harrison Avenue (now Marina Way), as shown in Figure 2.5.
  - Buildings in Subarea B shall utilize a nautical or traditional National City design theme.
  - Coastal development permit review of any structure in Subarea B shall include analysis and written findings of consistency with all of the standards of this Chapter and with Chapter 18.102 of the City's LUC.

- **32nd Street Extension.** The extension of 32nd Street to Harrison Avenue (now Marina Way), as shown in Figure 2.8, shall be landscaped to:
  - Screen maritime-related cargo or marina-related industrial development or uses from public view, to the maximum extent feasible.
  - Utilize native vegetation, consistent with the species list in Table 3.5 and the standards of Chapter 3, provided that nonnative species that are not invasive of wetlands or other environmentally sensitive habitats shall be permitted, to assist in achieving 80 percent areal coverage of the landscaped security fence within 2 years. Nonnative species shall be removed as native plants become established.

4.1.4 Project Impact Analysis

4.1.4.1 Methodology

Aesthetic experiences can be highly subjective and vary from person to person; therefore, when feasible, it is preferable to evaluate aesthetic resources using a process that strives to identify the visual features of the area, their importance, and the sensitivity of the associated viewers objectively. The proposed project-related changes to the aesthetic character of the project site and surrounding area are identified and qualitatively evaluated based on the extent of the modification to the existing physical conditions and based largely on viewer sensitivity to the modification.

The following section identifies viewer groups that would be sensitive to changes in the visual setting and discusses proposed project KOPs that would be visually accessible to these viewers. The existing visual environment is then compared to the anticipated future visual environment through a qualitative assessment, relying on the site plans and renderings of the proposed project provided in Chapter 3, *Project Description* (Figures 3-9 through 3-16). Proposed project-related changes are evaluated using the threshold criteria discussed in Section 4.1.4.2, *Thresholds of Significance*, to determine significance. It should be noted that the District does not consider views from private property a protected resource.

Viewer Groups and Viewer Sensitivity

Viewer sensitivity is based on the visibility of a scenic resource, the proximity of viewers to the resource, the relative elevation of viewers to the resource, the frequency and duration of views, the number of viewers, and the types and expectations of the individuals and viewer groups. Generally, visual sensitivity increases as the total number of viewers, frequency, and duration of viewing activities increases.

The degree of visual sensitivity is treated as occurring at one of the following four levels.

- *High sensitivity* suggests that the majority of the public is likely to react strongly to a threat to visual quality. A highly concerned public is assumed to be more aware of any given level of adverse change and is substantially less tolerant than members of the public that have little to moderate concern. A small modification of the existing landscape may be visually distracting to a highly sensitive public and represent a substantial reduction in visual quality.
- *Moderate sensitivity* suggests that the public would probably voice concern over substantial visual impacts. Often, the affected views are secondary in importance or are similar to others commonly available to the public.
- *Low sensitivity* is considered to prevail where the public is expected generally to have little concern about adverse changes in the landscape, or only a small minority may be expected to voice such concern, even where the adverse change is substantial in intensity and duration.
- *No sensitivity* occurs when the views are not public, or there are no indications of public concern over, or interest in, scenic/visual resource impacts on the affected area.

An evaluation of the project site and the potentially affected environs, along with a review of public scoping comments, served to identify indicators of public sensitivity to changes to views. An analysis of the surrounding area was also conducted to identify areas where the proposed project would be most visible and assess the quality of public views of the project site. The range and quality of public

views of the project site was determined by reviewing street maps and designated vista areas in the PMP, conducting site visits, and reviewing photos of areas within or adjoining the project site. The range of sensitive views was then considered, and several representative views in which the proposed project elements would be most noticeable were selected for detailed analysis. This decision was based primarily on proximity and degree of proposed project exposure.

Consideration was also given to how viewers within each setting would experience the proposed project due to varying degrees of visibility and distance from the project site, as well as the structures, vegetation, topographic features, or other intervening obstacles present. Because objects within the foreground have more detail, views from such locations would be more detailed compared to objects that are less distinguishable in the distance. Therefore, the potential sensitivity of close-in viewers was considered higher than those who have more distant public views of the project site and surrounding area. Based on these considerations, candidate KOPs were identified. A discussion of the KOP process is below.

Key Observation Points (KOPs)

Six candidate KOPs were identified for consideration in the impact analysis at public vantage points throughout the project vicinity. Identification of KOPs was based on the project site's location within the viewshed of a designated vista area, points within the project area that have prominent views of the project site, or the potential for the project site to alter views from other publicly accessible vantage points in the project area. The original six candidate KOPs included the five KOPs discussed below, as well as another one in the western corner of the Pier 32 Marina. This KOP was eliminated from further consideration because of the limited visual range of the KOP and redundancies with other chosen KOPs. A KOP was not considered for the City-owned parcels that comprise the City Program Components because this area of the project site does not offer unique views, considering the existing-development public vantage points or prominent views of the project site or surrounding area. Furthermore, the visual sensitivity of this area is low because it is dominated by views of commercial buildings, parking lots, and streetscapes. Therefore, the City Components were not considered further as a location of a potential KOP. The five KOPs carried forward were chosen as representative of a cross-section of scenic quality, viewer types, and viewer sensitivities, which are, in turn, representative of the existing viewsheds; their locations and relationships to the project site are illustrated on Figure 4.1-2. For each KOP, viewer sensitivity and visual quality (based on the attributes defined in Section 4.1.1.1*, Concepts and Terminology*) were determined. A discussion of the existing views from these KOPs is provided below. An analysis of the proposed project's effect on these KOPs is provided in Section 4.1.4.3, *Project Impacts and Mitigation Measures*.

Paradise Marsh Wildlife Refuge Viewshed (KOP 1)

KOP 1 is located at the south end of the parking lot for the Best Western Hotel on a viewing platform. KOP 1 provides a wide, uninterrupted view of the extent of the Paradise Marsh Wildlife Refuge (see Figure 4.1-3). A sign in the parking lot directs visitors to the "Bay View." This viewpoint connects to the "Paradise Trail," which runs along the sidewalk bordering the west side of the marsh.

The view from KOP 1 includes the entirety of the Paradise March Wildlife Refuge, with the northern portion in the forefront and the southern convergence with Sweetwater Channel in the distance. The foreground and middleground views consist of marsh vegetation, with a meandering creek in the middle. The background consists of views of the marsh, Sweetwater Channel, and the opposite bank. Large electric transmission towers and the I-5 bridge over Sweetwater Channel are also visible in

the background. I-5 and the urban development of National City are visible to the east; Pasha surface parking lots, storage facilities, and the project site are visible to the west. At the project site, the top of the Pier 32 building and the tops of boat masts and lamp posts are visible from KOP 1, but much of the project site is blocked from view by intervening vegetation and fencing.

Visual quality from KOP 1 is considered high. KOP 1 provides an expansive view toward the south of an uninterrupted natural environment, which is considered a visually interesting view. In addition, the view of Paradise Marsh Wildlife Refuge is located in a predominantly developed urban area that does not offer many natural, undisturbed views. KOP 1 is in a commercial area that serves visitors to the nearby hotel or recreationalists on the adjacent Paradise Trail. The area is not currently accessed by large numbers of visitors because of its location behind the hotel complex; however, the viewing platform and signs physically identify KOP 1 as a specific vista location, and it provides the only expansive view of Paradise Marsh; therefore, viewer sensitivity is considered to be moderate to high.

Viewing Platform at Pier 32 Marina (KOP 2)

KOP 2 is located on a platform at the entrance to the Pier 32 Marina facility, adjacently east of the buildings, south of the parking lot, and north of the marina. The platform extends out over the marina and has a sign that identifies it as a "Bay View." KOP 2 is available to the public and accessible by visiting the Pier 32 Marina, most likely by car, bicycle, or on foot. The platform KOP 2 is located approximately 15 feet south of the point at which Marina Way turns to the west and is located on the 20-foot-wide clear zone and overlook required on Pier 32 pursuant to the Pier 32 Marina's Coastal Development Permit. In addition, in the Balanced Plan, the north–south portion of Marina Way has been identified as a public access corridor (for visual and physical access), looking south toward the marina and Sweetwater Channel, connecting to the 20-foot-wide clear zone and overlook required on Pier 32 pursuant to the Pier 32 Marina Coastal Development Permit.

KOP 2 is located within the project site and provides a view of the GB Capital Component. KOP 2 provides views primarily to the south, including the marina, Sweetwater Channel, and the bank across the channel that is part of San Diego Bay National Wildlife Refuge (see Figure 4.1-4). The foreground of the view is characterized by wooden docks and the sailboats and motorboats docked at the slips; the middleground includes docked boats and open water in between and the riprap and vegetation along the jetty at the southern end of the marina. The background provides distant views of the San Diego Bay National Wildlife Refuge, located on the opposite bank, and the outline of low buildings in the distance.

The visual quality of KOP 2 is considered to be high because of the highly ordered view of the docked boats, as well as the views of open water and naturally occurring vegetation. The only element that interrupts the viewshed is the sailboat masts throughout the marina, which themselves are elements that contribute to the overall visual quality of KOP 2 because viewers would expect to see such elements at a marina facility. Although KOP 2 is open to the public, it is experienced most by Pier 32 Marina members and visitors who use the facility and available amenities. KOP 2 is mainly surrounded by urban development or marine-related industrial and commercial facilities; however, because KOP 2 is not trafficked by a large number of visitors, but is available for weddings and other events, the viewer sensitivity is considered to be moderate to high.

Jetty View (KOP 3)

KOP 3 is located at the eastern end of the jetty that protects the marina from Sweetwater Channel and San Diego Bay. The jetty, approximately 70 feet wide, is currently used to store boat trailers and other related materials on the southern side, with vegetation lining the northern side. The jetty has a flat, gravel-covered surface suitable for walking and is accessible from a gravel road along the eastern edge of the marina. Although this KOP is available to the public, the eastern side of the gravel road is used for boat and boat trailer storage, and there are no signs or clear access points to this gravel road.

KOP 3 provides a view to the south and southwest (see Figure 4.1-5a and Figure 4.1-5b). The view to the south includes the open water of Sweetwater Channel in the foreground. The vegetated, rocky bank on the opposite side of Sweetwater Channel and the San Diego Bay National Wildlife Refuge composes the background of the view. Two buildings associated with the Living Coast Discovery Center are also visible vaguely in the background. To the southwest, the foreground consists of views of Sweetwater Channel and the jetty, and the background consists of open water views of the mouth of Sweetwater Channel and San Diego Bay, bordered by the natural, undeveloped bank on the south side and the jetty of Pier 32 Marina and the National City Aquatic Center on the north side. The character of the views to both the south and southwest are dominated by uninterrupted open water, with more marine-related development available in the view to the west.

The visual quality of KOP 3 is considered high because of the natural characteristics of the views of open water and San Diego Bay National Wildlife Refuge. This KOP is available to the public, but there is no directional signage, nor a clear entrance point to access the KOP for the public; therefore, it would not be a viewpoint with high visitation. The view to the south from KOP 3 provides views of the Sweetwater Channel portion of the project site. The southwest view of KOP 3 provides a view of the western end of the existing jetty, currently used for the storage of marina-related materials. Because of the limited access to KOP 3, the viewer sensitivity is considered to be moderate.

National City Aquatic Center (KOP 4)

The fourth KOP is located at the National City Aquatic Center, on the sidewalk between the building and Sweetwater Channel. National City Aquatic Center is located between Pepper Park and Pier 32 Marina, south of a surface parking lot associated with both facilities. The National City Aquatic Center comprises a building for events and activities, outdoor and indoor boat storage, paved sidewalks circling the buildings, and a pier platform with a floating dock. KOP 4 has two views, directed to the south and the southwest (see Figure 4.1-6a and Figure 4.1-6b). The southern views from KOP 4 include the dock and pier platform, the open water of Sweetwater Channel, and the opposite bank, which is characterized by riprap, bare land, and low vegetation. The San Diego Bay National Wildlife Refuge and the Living Coast Discovery Center are visible in the background. The view to the southwest includes the pier platform in the foreground and the open water of Sweetwater Channel, the north and south banks, and Pepper Park in the middleground. Landscaping, deciduous and palm trees, benches, and sidewalks are visible in Pepper Park from KOP 4. The background includes views of the mouth of Sweetwater Channel and San Diego Bay. The view from KOP 4 is predominantly of open water and recreational facilities.

KOP 4 is available to the public and marked with a “Bay View” sign near the entrance to the Aquatic Center. The Aquatic Center is used for environmental education events, as well as boating and other watersport activities. The participants in these activities would be the most common viewers at

KOP 4, but other visitors to the area, such as to the marina or the park, could also access the view. KOP 4 is located within the Balanced Plan, but would not provide clear views of this component or other project components; however, a peripheral view of the southern part of Pepper Park would be available if a viewer were to look all the way to the west. Although Pepper Park would be visible, it would not be an element of the main views this KOP provides.

The visual quality of KOP 4 is considered high because of the uninterrupted open water views and the variety of visual subjects it provides (e.g., water, marine-related structures, parkland). KOP 4 is located at a recreational center; therefore, it is anticipated this KOP would have numerous visitors, but most would not be present for a long period because they are at the center for particular activities. In addition, there are no benches at the site of the KOP that would encourage visitors to stay for a prolonged time. Large groups, as well as individuals, would visit the KOP to participate in boating activities or more passive recreational activities, such as walking or bike riding in Pepper Park. Therefore, the viewer sensitivity would be considered moderate to high.

Pepper Park (KOP 5)

KOP 5 is located in the southwestern corner of Pepper Park and consists of views to the south, southeast, and west (see Figure 4.1-7a, Figure 4.1-7b, and Figure 4.1-7c). The view to the southeast consists of Sweetwater Channel and the undeveloped bank of the San Diego Bay National Wildlife Refuge in the foreground, the dock associated with the Aquatic Center in the middleground, and the I-5 bridge over Sweetwater Channel in the background. To the south, the view consists of Sweetwater Channel and the undeveloped, sparsely vegetated land of the San Diego Bay National Wildlife Refuge. This view is dominated by open water. The western view consists of Sweetwater Channel in the foreground; the middleground view consists of the pier at the western end of Pepper Park and open water of Sweetwater Channel; views of San Diego Bay and the San Diego Bay National Wildlife Refuge are available in the background. Lamp posts associated with the historic first point of rest (FPR) are visible over the Pepper Park pier, in the background to the west. This view is dominated by open water and marine-related features (i.e., the dock and pier). Although the primary views available are to the southeast, south, and west, the view to the southwest would also be available and consist of similar features to the south and west views, such as Sweetwater Channel, the San Diego Bay National Wildlife Refuge, and San Diego Bay.

This KOP is identified in the existing PMP as a vista area, facing southwest across Sweetwater Channel and toward the San Diego Bay National Wildlife Refuge. KOP 5 is accessible to the public through Pepper Park, which provides several recreational facilities for visitors, including a playground with a jungle gym, a fishing pier, picnic tables, and restrooms. KOP 5 is located in the Balanced Plan of the proposed project and provides views of the Balanced Plan and GB Capital Component to the southeast.

The visual quality of KOP 5 would be considered high because of the uninterrupted open water views and the panoramic nature of the view from the southeast to the south to the southwest. KOP 5 is located in Pepper Park, which provides sidewalks, benches, and picnic tables, enabling visitors to stay for an extended period. Due to the availability of the KOP to visitors and the recreational facilities enabling prolonged viewing, the viewer sensitivity is considered high.

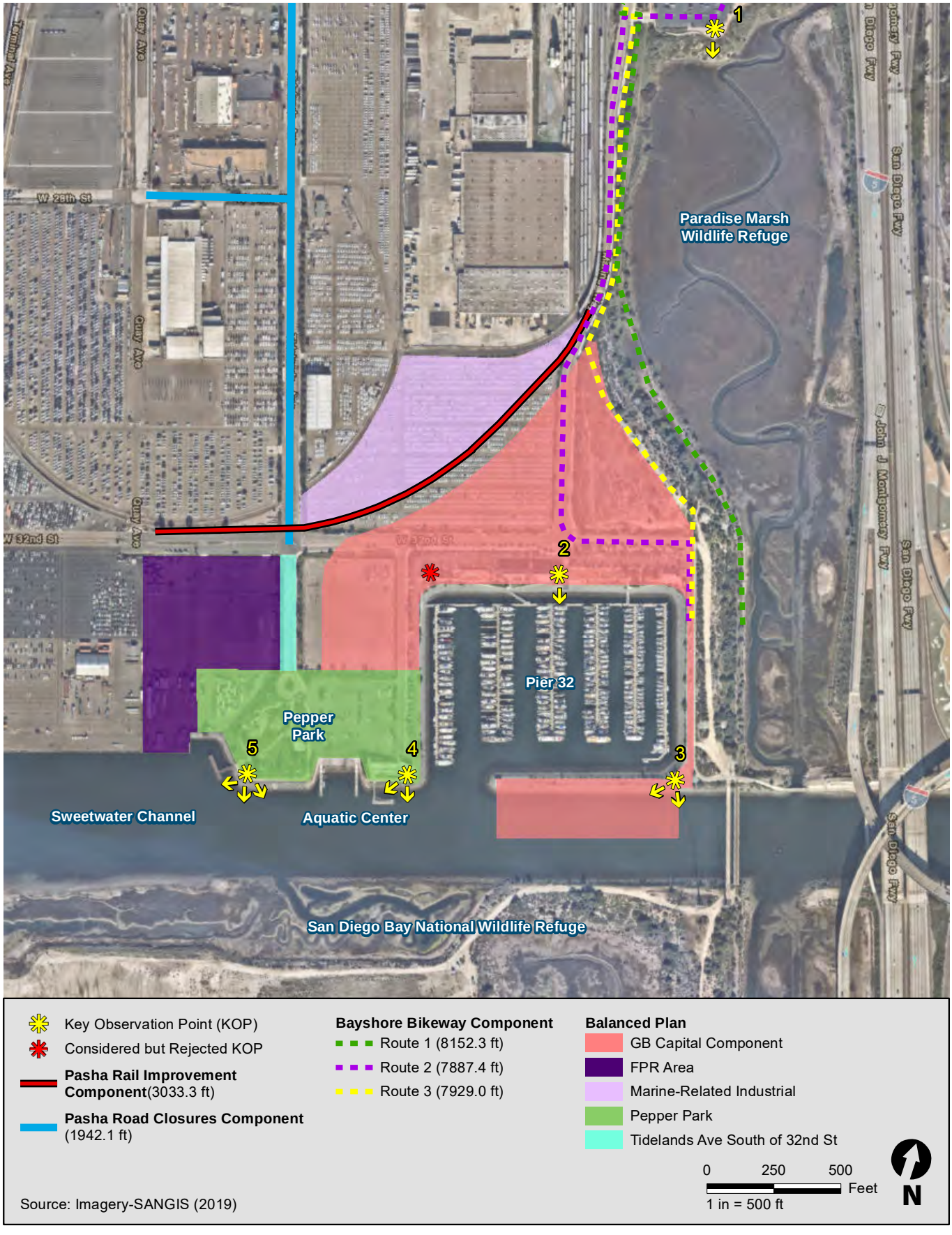

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Figure 4.1-2
Key Observation Points (KOPs)



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Figure 4.1-3
KOP 1 Looking South



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Figure 4.1-4
KOP 2 Looking South



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Figure 4.1-5a
KOP 3 Looking South



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Figure 4.1-5b
KOP 3 Looking Southwest



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Figure 4.1-6a
KOP 4 Looking South



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Figure 4.1-6b
KOP 4 Looking Southwest



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Figure 4.1-7a
KOP 5 Looking Southeast



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Figure 4.1-7b
KOP 5 Looking South



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Figure 4.1-7c
KOP 5 Looking West

4.1.4.2 Thresholds of Significance

The following significance criteria are based on Appendix G of the State CEQA Guidelines and provide the basis for determining the significance of impacts associated with aesthetics and visual resources that could result from the proposed project. The determination of whether an aesthetics and visual resources impact would be significant is based on the thresholds described below and the professional judgment of the District as Lead Agency based on the evidence in the administrative record.

Impacts are considered significant if the proposed project would result in any of the following.

1. Have a substantial adverse effect on a scenic vista, including, but not limited to, the vista areas the District designated in the PMP
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway
3. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (*public views* are those that are experienced from publicly accessed vantage point); if the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality
4. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area

The analysis of whether the proposed project would have a significant impact related to aesthetics under Threshold 2 is provided in Section I of the Initial Study/Environmental Checklist (Appendix A of this Draft EIR), which determined that the proposed project would result in a less-than-significant impact. The analysis and conclusions therein are incorporated by reference into this section of the Draft EIR and summarized in Chapter 6, *Additional Consequences of Project Implementation*. Therefore, only Thresholds 1, 3, and 4 are discussed in the impact analysis that follows.

4.1.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would have a substantial adverse effect on a scenic vista, including, but not limited to, the vista areas the District designated in the PMP.

Impact Discussion

The five KOPs described in Section 4.1.4.1, *Methodology*, are all vista areas that could be affected by the implementation of the proposed project by either an adverse effect to the location of the KOP itself or due to an adverse effect to the view KOP provides. KOP 1 represents an existing view of Paradise Marsh and may be affected by the development of the proposed GB Capital and Bayshore Bikeway Components. KOP 2 is located within the project site and provides a view of the GB Capital Component and Sweetwater Channel beyond. The location of KOP 2, as well as the view it provides, could be affected by the development of the GB Capital Component. The location of KOP 3, which is within the GB Capital Component, could be affected by the development of the modular cabins on the jetty, or the view provided by KOP 3 could be affected by the implementation of aquaculture in Sweetwater Channel. KOP 4 is located within the Balanced Plan area. The development of the

Balanced Plan has the potential to affect access to KOP 4. KOP 5, which is a designated vista area in the PMP, is located in Pepper Park, and access to KOP 5 could be affected by development within Pepper Park as a result of implementation of the Balanced Plan. The following discussion analyzes these potential impacts on KOP 1 through KOP 5. Existing views from the five KOPs are provided in Figures 4.1-3 through 4.1-7c.

Construction

Construction of the proposed project would require standard construction equipment for demolition and grading for site preparation, such as earth-moving equipment and forklifts, and equipment for the construction of landside project features, such as concrete trucks, pavers, pile drivers, and cranes. For purposes of this analysis, it is assumed construction staging would occur onsite for each project component. Waterside improvements would require construction equipment, such as dump trucks, forklifts, and barges. Construction activities could temporarily encroach on or block access to the PMP-designated vista area in the project site, the Pepper Park vista area (also identified as KOP 5). Construction equipment related to the expansion of Pepper Park, the development of the GP Capital Component, and the Pasha Road Closures Component could block roadway or walkway access to the vista area, which could prevent the public from accessing the vista area. However, the direct open-water views of Sweetwater Channel and San Diego Bay from Pepper Park that the vista area provides would be unaffected, regardless of construction activities, because construction activities primarily would occur behind (i.e., away from) the location of the designated scenic vista and the direction of the views the scenic vista provides. Because this vista area is also KOP 5, further analysis is provided below under the KOP 5 heading. The following describes the effect of construction activities on the project KOPs.

KOP 1

Construction of the proposed project would result in the temporary use of large construction equipment and visible construction-related activity, as described above. Existing views from KOP 1 feature expansive foreground views of Paradise Marsh and distant views of the GB Capital Component to the southwest. Given the distance of the project site from KOP 1, and the presence of intervening vegetation, most construction equipment would not be visible. If cranes are used during construction of the proposed hotels, the pier expansion, or the modular cabins, they would be visible at a distance. In addition, the southern portion of Routes 1, 2, and 3 of the Bayshore Bikeway Component would be visible. Construction equipment used for the establishment and paving of the Bayshore Bikeway Component, such as excavators, dump trucks and pavers, would be visible. However, because the Bayshore Bikeway Component is a linear project component, construction equipment would not be located at any given point for significant amounts of time. Although the construction equipment would be visible from KOP 1 for portions of the construction phase of the proposed project, the presence of equipment would not interrupt or otherwise effect Paradise Marsh, which is the main visual feature of KOP 1. As such, impacts from construction of the proposed project on the KOP 1 vista area would be less than significant.

KOP 2

Existing views from KOP 2 consist of the boat slips at Pier 32 Marina in the foreground and the opposite bank and the National Wildlife Refuge in the background. Construction equipment would be visible from KOP 2 during construction of the modular cabins, the dock extension, and the new pier, with boat slips on the south side of the jetty, as well as potential development of aquaculture in

the channel, which are all proposed as part of Phase 1 of the GB Capital Component. It is estimated that the construction of Phase 1 of the GB Capital Component would be expected to begin around 2022 and last for 2 years. Construction along the jetty would not block the foreground view of the boat marina, but it may obstruct the view of the low vegetation and open space of the National Wildlife Refuge on the opposite bank. Construction within Sweetwater Channel also could obstruct views of the National Wildlife Refuge across the channel. Peripheral views from KOP 2 may allow viewers to see construction equipment during the construction of the new marina administration building, new restroom building, and pier platform as part of Phase 1 of the GB Capital Component, and up to four hotel buildings as part of Phase 2 of the GB Capital Component, but these elements of the project site do not make up the main visual features of KOP 2. The presence of construction activities within the viewshed of KOP 2 for up to 2 years for Phase 1 of the GB Capital Component would interfere substantially with the existing views of the open space of the National Wildlife Refuge. Therefore, construction activities associated with the proposed project, including construction activities in the marina, on the jetty, and in Sweetwater Channel associated with the GB Capital improvements, would result in significant temporary impacts on vista areas from KOP 2 (**Impact-AES-1**). Implementation of **MM-AES-1** and **MM-AES-2** would be required.

KOP 3

Views from KOP 3 consist of the open water of Sweetwater Channel in the foreground, and the opposite bank and the National Wildlife Refuge in the background. The west end of the jetty and the National City Aquatic Center are visible to the southwest. The view would include small portions of the project site, including the potential development of aquaculture in Sweetwater Channel, and the development of a pier, modular cabins, and dock expansion on the jetty as part of the GB Capital Component's Phase 1 development. Phase 2 of the GB Capital development would not include construction on the jetty, in the marina, or in Sweetwater Channel. During Phase 1 construction, which is expected to begin around 2022 and last for 2 years, construction equipment used to construct the pier and additional moorings in Sweetwater Channel on the southern side of the jetty would be visible from KOP 3. If aquaculture were developed in the open water of Sweetwater Channel, construction equipment would be visible, but the type of construction equipment—and, thus, the level of intrusiveness of the equipment—would be expected to be typical construction equipment, similar to what would be used for in-water construction of the GB Capital marina facilities. In addition, the proposed construction for Phase 1 of the GB Capital Component could restrict general public access to KOP 3 because construction would occur along the western edge of the marina, which provides the only access to the jetty, and would occur on the jetty itself, which could block access to the view area. Because construction of Phase 1 of the GB Capital Component would partially affect the view from KOP 3, and could restrict access to the KOP for up to 2 years, construction would result in significant temporary impacts on KOP 3 (**Impact-AES-2**). Implementation of **MM-AES-3** would be required.

KOP 4

KOP 4 is located at the National City Aquatic Center and provides views to the south and southwest. Existing views predominantly consist of the open water of Sweetwater Channel, the riprap and vegetation of the opposite bank, the National Wildlife Refuge across the water, and the mouth of the channel where it meets San Diego Bay. Views of the southernmost portion of Pepper Park are visible to the southwest. Construction of the Pepper Park expansion would include large construction equipment that potentially could be visible, particularly if the equipment were located in the southern portion of Pepper Park, along the channel. Construction equipment generally would

consist of dump trucks, backhoes, excavators, and pavers. However, the majority of the Pepper Park expansion would be to the west and northwest of KOP 4 and out of view. Although construction activities associated with Phase 1 of the GB Capital Component could potentially be visible from KOP 4 for the duration of construction (up to 2 years), the construction would not obstruct the primary views KOP 4 provides of open water to the south and an expansive view of where Sweetwater Channel meets San Diego Bay. The location of construction equipment and activities within Pepper Park potentially could block the access routes to KOP 4 from either the west side or the east side of the National City Aquatic Center. However, because multiple options provide visitor access to the KOP, an access route likely would be available, and the KOP would not be completely blocked from the public. Additionally, similar views are available from the boat ramp area and the sidewalk along the southern end of Pepper Park; thus, similar views would be available in close proximity if access to KOP 4 is blocked temporarily due to the location of construction equipment or activities. Because construction activities would not interrupt the main views across the water bodies and natural habitat, impacts on KOP 4 would be less than significant.

KOP 5

KOP 5 also provides a view of the expansive open water of Sweetwater Channel and San Diego Bay. From KOP 5, some of the operations at the marine terminal are visible. However, the majority of construction activities would occur north and east of the KOP (i.e., behind) and would not obstruct the views to the south, southeast, and southwest/west from KOP 5. Construction equipment or activities may block access to KOP 5 temporarily, which would prevent the public from using KOP 5. The KOP is accessed from multiple paths through Pepper Park: one from the southern terminus of Goesno Place, one from the adjacent parking lot, and one from the walkway along the southern portion of the park, along the water. If large vehicles or equipment were in Pepper Park, or demolition of existing structures and excavation activities occur in the western or southern portions of Pepper Park, this could block these pathways and prevent public access through Pepper Park to KOP 5. However, construction activities would be temporary, and if one of these pathways is temporarily blocked, other paths would continue to provide access to KOP 5. Additionally, because similar views are available from KOP 2, KOP 3, and KOP 4, as well as from other points along the southern end of Pepper Park, the view of Sweetwater Channel and San Diego Bay would not be completely obstructed. Therefore, construction would not be likely to interfere substantially with access to KOP 5, and impacts would be less than significant.

Operation

Implementation of the proposed project would result in the following:

- Redevelopment of the GB Capital site with an RV park, modular cabins, dry boat storage, up to four hotels, and an expanded marina
- Operation of a rail connector track and storage track at the Pasha facility
- Closure of Tidelands Avenue and 32nd Street for marine-related operations
- Expansion of Pepper Park by over 2.5 acres and potential development of improvements, such as a fountain/splashground and potential relocation of the historic Granger Hall to Pepper Park
- Operation of aquaculture in Sweetwater Channel
- Operation of Segment 5 of the Bayshore Bikeway

- Operation of hotel, retail, restaurant, or a combination of tourist/visitor-serving commercial development at the City Program site
- Changes to land use, specific plans, and zone designations

Complete buildout of Phase 2 of the GB Capital Component, which includes up to four hotels, would be dependent on market demand.

The effect on the KOPs from project operations is discussed below.

KOP 1

KOP 1 is located at a viewing platform in the parking lot of the Best Western Hotel and provides an expansive view of the Paradise Marsh in the foreground, middleground, and background. The project site is visible in the western portion of the viewshed, including the Bayshore Bikeway Component and the GB Capital Component. The Bayshore Bikeway Component would either be visible on the western bank of Paradise Marsh (Route 1), on the sidewalk along Marina Way (Route 2), or within the ROW of Marina Way (Route 3). Route 1 would be a paved, Class I bike path and would be visible from KOP 1. However, although it would introduce more impervious surfaces to the natural environment along the bank of the marsh, it would not alter the landform or introduce any structures or other features that would interrupt or block any part of the view KOP 1 provides. Routes 2 and 3 would be located within the existing sidewalk or roadway of Marina Way, which would be visible from KOP 1, but the implementation of the bike routes would not significantly alter the features of Marina Way or introduce new structures that would interrupt or block the viewshed.

The Pier 32 Marina is visible over the top of intervening vegetation. The full buildout of the GB Capital Component would include two four-story hotels, one three-story hotel, and one 11-story hotel, all of which could be visible in the western portion of the background view from KOP 1. The structures would increase the height and density of development in the adjacent area; however, development of the hotels in the distance would not alter the views of Paradise Marsh, which is the primary visual resource KOP 1provides. The expansive views of Paradise Marsh would remain intact; therefore, the impacts on scenic vistas from KOP 1 would be less than significant.

KOP 2

KOP 2 is located at the existing viewing deck at the Pier 32 Marina facility, at the end of the existing Marina Way north–south alignment. KOP 2 provides a view of the existing boat marina in the foreground, the riprap shoreline of the jetty in the middleground, and the National Wildlife Refuge in the background. On completion of the proposed project, KOP 2 would include a view of the expanded marina, the modular cabins on the east bank and on the jetty, the expanded piers, new moorings, the pier platform, and the gangway, all of which are associated with the GB Capital Component. The three-story, 40-room hotel would border the KOP directly to the east, and both the four-story, 81-room hotel and the 11-story, 282-room hotel would be visible on the landside on the western end of the KOP 2viewshed. Although these features would alter the view compared to the existing view, all these features would be consistent with the general character of the marina, which currently is dominated by marine-oriented facilities, such as gangways and piers, and features associated with sailboats and speedboats, including masts, sails, vessels, and line. More boats would be visible in the marina as a result of the GB Capital Component development, but they would be similar to what is currently moored there, including speedboats and sailboats, and, thus, would be consistent with the marine character. The modular cabins would be one-story high, but their

presence would restrict the background views of the National Wildlife Refuge beyond the jetty, which makes up approximately three-quarters of the marina's width. Views of natural habitat in the National Wildlife Refuge would still be available at the entrance of the marina, but this would be only approximately one-quarter of the marina width. Although the main features of the scenic vista would be the boat marina, the open water between the boats, and the associated features (i.e., piers, riprap, and the jetty), operation of the proposed project would obstruct background views of vegetated open space of the National Wildlife Refuge. Because of the number of elements that would be added to the view, including additional boat docks and slips, the modular cabins, the pier platform and gangway, and moorings, the existing foreground and middleground view would be significantly altered. In addition, the development of the modular cabins on the jetty would block the background view of open, vegetated space blocked significantly. Therefore, the proposed project would result in significant impacts on the scenic vista available from KOP 2 (**Impact-AES-3**). Implementation of **MM-AES-4** and **MM-AES-5** would be required.

KOP 3

KOP 3 is located at the eastern end of the jetty and provides views of open water of Sweetwater Channel, the riprap along the opposite bank, and the low vegetation on the opposite bank associated with the National Wildlife Refuge. The viewshed also includes a view toward the southwest, which includes the riprap and gravel-covered surface of the jetty, the open water of Sweetwater Channel, and the National Wildlife Refuge. The view from KOP 3 would include elements associated with Phase 1 of the GB Capital Component, including the new pier and slips for temporary boat mooring, the additional mooring buoys in Sweetwater Channel, and the optional development of aquaculture. KOP 3 currently includes views of primarily undisturbed, natural environment; the implementation of the proposed project would interject artificial structures into the viewshed, thus altering the character and the quality of the view. The presence of the in-water features would disrupt the expansive views of the open water, and, depending on the size and height of the boats docked in the slips in the channel, they could obstruct the middle- and background views of the open space, natural features of the National Wildlife Refuge, and, possibly, background views of the convergence of Sweetwater Channel and San Diego Bay to the west. In addition, the modular cabins proposed on the jetty would be visible from KOP 3 to the west and restrict the viewshed to the west, thus altering the existing panoramic views provided at this KOP.

As part of Phase 1 of the GB Capital Component, a publicly accessible open space area would be constructed on the jetty (see Figure 3-9). The open space area would provide a viewshed to the south, southeast, and southwest, similar to the viewshed available at KOP 3. The location of KOP 3 was chosen because of feedback received from interested parties during the NOP's public review period. Based on the proposed design of GB Capital Phase 1 development, the view from the open space would be of open water, followed by the opposite bank and vegetated open space of the National Wildlife Refuge to the south; open water, the proposed pier and boat slips, and in-water features to the southeast; and open water followed by the vegetation and open space of the National Wildlife Refuge to the southeast. The proposed open space area would provide effectively the same view as the existing view from KOP 3. Therefore, although the proposed project would disrupt the viewshed of KOP 3, because the open-space area on the jetty would provide a sufficient replacement that would be equally as accessible for the public, operation of the proposed project would have a less-than-significant impact on the scenic vista associated with KOP 3.

KOP 4

KOP 4 is located at the National City Aquatic Center and provides scenic views to the south and southwest. The views are similar to those provided by KOP 3. The views to the south and southwest would not provide substantial views of operational project elements, only brief views of the expanded and redeveloped Pepper Park to the southwest along the waterfront area. The development in this area would be consistent with recreational uses, and the operation of Pepper Park would not change substantially in the area that is visible from KOP 4. The development associated with the GB Capital Component would operate to the east and north of KOP 4, which would be behind the KOP and would not be included in the viewshed. The visible project elements of the implemented project could alter the viewshed from KOP 4 slightly, but would not obstruct the expansive views, and would generally conform to the overall character of the project site. Therefore, the impacts on KOP 4 would be less than significant.

KOP 5

Views from KOP 5 largely comprise expansive open water views of Sweetwater Channel and San Diego Bay. The background of the viewshed is primarily the open space of the National Wildlife Refuge, located across the channel. The operation of the proposed project would occur to the north and northeast of KOP 5, which would be behind the viewer and outside the viewshed. Pepper Park would be directly behind the KOP, but would continue operating as a public park, and would not obstruct views or prevent viewers from accessing the scenic vista. The Pasha Rail Improvement Component would not be visible from KOP 5, nor would the Pasha Road Closures Component. Therefore, the viewshed would remain unchanged, and the impact on KOP 5 would be less than significant.

City Program

There are no KOP or scenic vistas identified within or in proximity to the City Program Component, and the area has low view sensitivity. The operation of the proposed project in this area would consist of a combination of hotel, retail, restaurant, or visitor-serving commercial development, which would be consistent with the visual character of the surrounding commercial operations, including a hotel, a museum, and commercial retail and office buildings. Therefore, the addition of new commercial uses in the City Program site would be consistent with surroundings uses, and their operations would not block or prevent access to any scenic vistas. The impact would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would have a substantial adverse effect on scenic vistas. Potentially significant impact(s) include:

Construction

Impact-AES-1: Obstructed Views Within a Vista Area During Project Construction (GB Capital Component). Construction activities in the marina, on the jetty, and in Sweetwater Channel associated with the GB Capital Component (Phase 1) would result in significant temporary impacts on vista areas from KOP 2.

Impact-AES-2: Inaccessibility of a Vista Area During Project Construction (GB Capital Component). Construction of the GB Capital Component (Phase 1) would partially obstruct the view

from KOP 3 and could restrict access to the KOP for up to 2 years, resulting in a significant temporary impact on KOP 3.

Operations

Impact-AES-3: Reduction in Availability of Existing Views (GB Capital Component). Operation of the GB Capital Component (Phase 1) would introduce several new features that would clutter the existing viewshed from KOP 2 and reduce availability of existing middleground and background views.

Mitigation Measures

Construction

For **Impact-AES-1**:

MM-AES-1: Install Construction Screening and Fencing (GB Capital Component). GB Capital shall require their contractors to install construction-screening fencing around the perimeter of the jetty prior to the start of construction of the modular cabins and extended dock and pier with boat slips that shall shield construction activities from sight. The screening shall remain until construction equipment is removed from this area. Construction-screening fencing shall be depicted on construction plans and, prior to issuance of construction permits, the District's Development Services Department shall confirm such fencing is depicted on the appropriate construction plans. Construction screening shall include, at a minimum, installation of 8-foot-tall fencing covered with view-blocking materials, such as tarp or mesh in a color that blends in with the existing environment (e.g., green or blue), for the duration of the construction period.

MM-AES-2: Install Wayfinding and Public Access Signage (GB Capital Component). Prior to construction of any GB Capital-related project elements within the marina, on the jetty, or in Sweetwater Channel that would affect the view provided by KOP 2, GB Capital or their contractors shall install temporary legible wayfinding signage in visible areas (e.g., in the general vicinity of the existing overlook at KOP 2 and where the existing waterside promenade on the Pier 32 Marina intersects with Goesno Place) that directs the public to other available scenic vistas that would not be affected by construction activities and would provide substantially similar views, such as KOP 4 and KOP 5. GB Capital shall require that contractors submit the signage characteristics (e.g., size, color, materials) to the District's Development Services Department for review and approval prior installation of the signage—provided however, that the temporary wayfinding signage shall at a minimum depict the direction and distance to the alternate KOP(s). Photographic proof of the installation of wayfinding signage shall be submitted to the District's Development Services Department prior to the beginning of construction activities of the GB Capital Component (Phase 1) that involve construction in the marina, on the jetty, or in Sweetwater Channel and may be removed on completion of construction.

For **Impact-AES-2**:

MM-AES-3: Establish a Temporary Scenic Vista (GB Capital Component). Prior to the commencement of construction of the GB Capital Component (Phase 1), GB Capital shall require its contractors to establish a temporary scenic vista directly east of KOP 3, adjacent to the western end of the existing Bayshore Bikeway bike path (before the existing path turns north),

which shall be accessible to the public throughout the entirety of the construction phase of the GB Capital Component. The project proponent shall provide temporary wayfinding signage at the GB Capital Component site and signage at the temporary scenic vista identifying it as a temporary scenic vista. Photographic proof of the establishment of the temporary scenic vista shall be submitted to the District's Development Services Department prior to the beginning of construction activities of the GB Capital Component (Phase 1).

Operation

For **Impact-AES-3**:

MM-AES-4: Install Permanent Wayfinding Signage for the Open Space Area on Jetty (GB Capital Component). GB Capital shall construct the open space/park area on the jetty concurrently with the construction of the modular cabins and shall finish the open space area prior to or concurrently with said cabins. When construction of the modular cabins is complete, GB Capital or its contractors shall install permanent wayfinding signage that is legible and in a publicly accessible area at KOP 2/the existing Pier 32 overlook to direct visitors to the open space area on the jetty, where views of Sweetwater Channel to the southeast, south, and southwest would be available. GB Capital or its contractors shall submit the signage characteristics (e.g., size, color, materials) to the District's Development Services Department for review and approval prior to installation—provided, however, that the wayfinding signage shall at a minimum contain the distance and direction to the open space area. Photographic proof of the wayfinding signage shall be submitted to the District's Development Services Department prior to issuance of the certificate of occupancy.

MM-AES-5: Extend the Existing Clear Zone Across Jetty (GB Capital Component). The project proponent for the GB Capital Component shall extend the existing minimum 20-foot-wide clear zone along the Pier 32 overlook southward across the jetty. The existing minimum 20-foot-wide clear zone and the proposed 20-foot-wide clear zone on the jetty shall be identified on the project plans. The open space/park area proposed on the jetty can be located within the 20-foot-wide clear zone. Prior to issuance of a coastal development permit that includes construction of the modular cabins, the District's Development Services Department shall confirm that the existing and proposed minimum 20-foot-wide clear zone is identified and observed on the project plans.

Level of Significance After Mitigation

Construction

Implementation of mitigation measures **MM-AES-1, MM-AES-2,** and **MM-AES-3** would reduce impacts on existing views and access to existing scenic vistas associated with construction during the approximately 2-year period for Phase 1 of GB Capital Component construction activities. Wayfinding signage would direct visitors to other available scenic vistas that would provide substantially the same views as KOP. Thus, with the implementation of **MM-AES-1** and **MM-AES-2, Impact-AES-1** would be reduced to less than significant. Implementation of **MM-AES-3** would establish a temporary scenic vista directly east of KOP 3. Furthermore, this impact would be temporary. Thus, with the implementation of **MM-AES-3, Impact-AES-2** would be reduced to less than significant.

Operation

Implementation of **MM-AES-4** would reduce potential impacts on KOP 2 by providing similar views to the south and southwest during operation of the proposed project. Implementation of **MM-AES-5** would reduce potential impacts on KOP 2 by maintaining a minimum 20-foot-wide clear zone along the Pier 32 overlook and across the marina and jetty to protect the view corridor. Therefore, **Impact-AES-3** would be less than significant.

Threshold 3: The project is in an urbanized area, and would conflict with applicable zoning and other regulations governing scenic quality.

Impact Discussion

The project site, located in an urban setting, is large and diverse and represents several different types of visual character. The project site can be divided into three main geographic areas identified by three separate visual characters: the waterfront area has modern, orderly spaces and visitor-serving buildings and recreational infrastructure; the areas utilized by Pasha are characterized as marine-related industrial uses; and the City Program parcels are characterized by commercial buildings and properties and vacant parcels. Each of these three distinct areas, and the project's potential effect on them, is described in more detail below.

Waterfront

The visitor-serving waterfront area of the project site, including Pepper Park and the Pier 32 Marina and National City Aquatic Center, offers a cohesive visual appearance, characterized by modern buildings with low profiles (one to two stories), infrastructure fronting the waterways to provide access to the water, and views featuring the natural character of the area. The character of the waterfront area is focused heavily on marine recreation, exemplified by the several docks, piers, and boat slips for recreational vessels available along the water frontage. The buildings are also predominantly focused on supporting marine recreation activities, particularly the Aquatic Center and Pier 32 Marina clubhouse. The visual character is also influenced by the landscaping, which provides a manicured landscape of flowering plants, managed lawns, and full-grown palm trees and enhances the passive recreational experience. Some naturally landscaped areas are located along the boundary of the marina and along the existing Bayshore Bikeway. Structures are spread out, allowing for views of grassy landscaped areas, open water, and adjacent land uses throughout the waterfront area. The GB Capital Component and development-related elements of the Balanced Plan, such as the expansion of Pepper Park, would be located within the visitor-serving waterfront area and would be the primary project components to affect the waterfront area. The implementation of the Balanced Plan, including the expansion of Pepper Park (which includes the optional relocation of Granger Hall to Pepper Park) mainly would affect the existing Pepper Park, whereas the GB Capital Component predominantly would affect the existing Pier 32 Marina development area. These specific waterfront features are described further below.

Pepper Park

The Balanced Plan proposes the conversion of existing paved areas utilized for marine terminal uses to park space to expand the footprint of Pepper Park. This change would alter the existing character of the paved marine terminal area, but would make these parcels more consistent with the character of Pepper Park. The proposed park/plaza land use would be adjacently west of the existing Pepper

Park and aid in expanding the park toward the west/northwest. This expansion could serve multiple purposes and may include features such as an interactive fountain/splash ground. These potential features generally would be consistent with the visual features of Pepper Park, including the playground and the Aquatic Center. An optional feature to the Pepper Park expansion is the relocation of the historic Granger Hall to Pepper Park. Granger Hall would be a distinctive feature in the Pepper Park area because surrounding architecture, including the Aquatic Center and restroom building, are modern-style architecture. Granger Hall, which has only a few windows, is a tall, single-story, wood building that would be elevated slightly off the ground. There would be stairs to reach the entrance and an eave overhanging the entrance area. These unique features would contribute to Granger Hall being the visual focus of Pepper Park. Granger Hall is approximately 3,200 square feet, and Pepper Park is proposed to be 338,026 square feet with the proposed expansion. As such, Granger Hall would represent a small portion of the total park area once it is relocated and would not result in a dominating feature. The exact location of Granger Hall within Pepper Park is unknown. If Granger Hall were sited near the water's edge, it would block views of the water through the park. Therefore, the relocation of Granger Hall as part of the proposed Pepper Park expansion and reconfiguration may result in a significant impact depending on location (**Impact-AES-4**). Implementation of **MM-AES-6** would be required.

Pier 32 Marina

The GB Capital Component would occur in two phases: Phase 1 proposes to install modular cabins, dry boat storage, an RV park, an administration building, a new parking lot, and several waterside improvements; Phase 2 proposes a four-story hotel with retail space, a three-story hotel, a second four-story hotel, and an 11-story hotel with a yard and pool. The full buildout of the GB Capital Component would include modular cabins, RV spots with hook-ups, an administration building, dry boat storage, four hotels, four additional docks, moorings in Sweetwater Channel, and, potentially, an aquaculture area. The proposed plans would be consistent with the general character of marine-centered, visitor-serving commercial development present along the waterfront (i.e., National City Aquatic Center and the existing Pier 32 Marina), but it would greatly increase the density of development along the waterfront and limit existing glimpses of open water and natural landscapes between buildings and structures. The full buildout of the GB Capital Component would also increase foot and vehicle traffic to the developed area and around the waterfront, which would contribute to a change in the overall character from quiet and secluded to a populated and bustling visitor-serving area.

The proposed hotels (especially the 11-story hotel) would be higher elevation than any other structures in the vicinity. The closest tallest structure is the four-story Best Western Hotel in the City Program area. The 11-story hotel building would be a new visually prominent feature given the low profile of all the buildings in the vicinity, including the Pier 32 Marina buildings and the National City Aquatic Center. However, the hotel building would be set back from the marina, the Aquatic Center, and Pepper Park, which are all oriented toward the water, away from the site of the proposed hotel. Thus, the 11-story hotel would not create a looming effect over those recreational resources. In addition, the proposed hotel building's narrower profile would be the element more visible in longer-range views from the National Wildlife Refuge to the south and from the north.

The District does not have a zoning code that establishes height limits, setback, or mass requirements. The Port Master Plan establishes general development standards for each land and water use designations, but does not include specific height limits, setback, or mass requirements. Further, the HDSAP does not have any development standards for the area of the GB Capital

Component that is located within the City's jurisdiction. Although the design of the GB Capital Component intends to be consistent with the character of the existing marina, the GB Capital Component is not yet fully designed, therefore, this project component may not be consistent with Section 30251 of the CCA, which, among other things, requires the GB Capital Component, "…to be visually compatible with the character of surrounding areas." Therefore, development of the GB Capital Component would potentially affect visual character within the Pier 32 Marina, a potentially significant impact (Impact AES-5). Implementation of **MM-AES-7** would be required.

The redevelopment of the parking lot and parcel B6 with an RV park would improve the overall character of the area, because it would replace surface parking and an overgrown, vacant lot with a landscaped, well ordered recreational area that would also be required to match the general design features of the marina. The RV park would increase accessibility and recreational uses by installing walkways, benches, and open space. The RV park would also include a central promenade, which would be developed along the "Harrison Avenue (now Marina Way) Public Access Corridor," generally as it is described in the City's HDSAP, and would maintain it as a viewshed and accommodate mainly pedestrians and bicycles, but would also serve as a driveway for the occasional car or RV.

Implementation of the proposed GB Capital development would result in concentrated development on the National City waterfront area and change the open, small-scale character it currently possesses. The taller structures may result in the waterfront appearing more hemmed in, and the additional watercraft may make the marina feel more compact. However, overall, the proposed GB Capital development would create an engaging, visitor-serving waterfront and activate several vacant or underutilized parcels. Therefore, the proposed development at Pier 32 Marina would not conflict with zoning or other regulations governing visual character, nor otherwise substantially negatively affect the existing character of the project site, and the impact would be less than significant.

Marine-Related Industrial Uses

The marine-related industrial uses, which Pasha currently utilizes, are located west and northwest of the waterfront visitor-serving area and characterized by paved surface lots (with chain-linked fencing) currently used as storage for vehicles. This area also includes 32nd Street and Quay Avenue and several railroad tracks. This area is surrounded primarily by visually similar surface parking lots, large warehouses, such as the National City Distribution Center, vessel-berthing areas, and the National City Rail Yard. There is very little landscaping or improvements along the road, resulting in an industrialized visual character along the public thoroughfares (where this area would be most commonly viewed). The Pasha Road Closures Component and the Pasha Rail Improvement Component would be located within marine-related industrial uses area. These two project components would alter the existing roadways and railroad tracks in order to increase operational efficiency (e.g., loading/unloading activities associated with Pasha's operations). The proposed changes would not change the uses or appearance of the roadway and railroad tracks and would be compatible with the existing industrial visual character in the area. Thus, the proposed project would not result in significant impacts on the visual character of the marine-related industrial uses area.

City Program Parcels

The City Program parcels in the northern portion of the project site are characterized by vacant lots with overgrown vegetation and wide sidewalks and streets. These are the only two vacant lots in the project vicinity, and they have an overall unkempt and abandoned visual appearance. The western parcel is currently leased to the San Diego Railway Association, which operates a railway museum building with railcars on display outside and adjacent to the building. The museum building is well-maintained and displays historic architecture. The surrounding properties are one- to two-story commercial buildings with generally low foot traffic. North of the City Program parcels are buildings housing commercial businesses and offices; to the south the block is occupied by a four-story Best Western Hotel and a restaurant. The overall visual character of the City Program area is commercial. The City Program – Development Component would result in development compatible with the Tourist Commercial zone, which would include, for example, a five-story hotel with restaurant and retail space. The Tourist Commercial zone would be compatible with the general character of the surrounding properties because several of them are visitor-serving, including the San Diego Electric Railway Association museum to the west and the hotel and restaurant to the south. The proposed hotel and restaurant/retail space would be compatible in scale with the surrounding development. The City Program – Development Component would alter the visual character of the vacant parcels, but it would result in compatible uses that would be more consistent with the character of the vicinity than the existing undeveloped, vacant lot. As part of the proposed project, the City Program parcels would be incorporated into the HDSAP. Any development proposed for the City Program parcels would be required to comply with the design standards established in the HDSAP, which include standards related to landscaping, setbacks, and building colors, materials, and textures, and would ensure compatibility with adjacent development and the natural features of the area. Therefore, the City Program – Development Component would result in less-than-significant impacts on the area's visual character.

Level of Significance Prior to Mitigation

Development of the proposed project could result in a significant impact related to conflicts with zoning or other regulations governing the visual character of the project area. Potentially significant impact(s) include:

Operation

Impact-AES-4: Detrimental Change to Pepper Park from the Relocation of Granger Hall (Pepper Park Expansion of Balanced Plan). The relocation of Granger Hall could result in a significant change to the visual quality of Pepper Park and the surrounding waterfront area because of the size and location of the building.

Impact-AES-5: Development of the GB Capital Component Would Potentially Affect Visual Character Within the Pier 32 Marina (**GB Capital Component**). The design of the GB Capital Component is intended to be consistent with the character of the existing marina; however, the GB Capital Component is not yet fully designed. Therefore, this project component may not be consistent with Section 30251 of the CCA.

Mitigation Measures

Operation

For **Impact-AES-4**:

MM-AES-6: Site Granger Hall to Reduce Impacts (Pepper Park Expansion of Balanced Plan). If the District selects the option to relocate Granger Hall to Pepper Park, the building shall not be located directly adjacent to the waterfront or waterfront promenade, nor within any existing or proposed view corridors or public access corridors. If the District selects the option to relocate Granger Hall to Pepper Park, the building shall be located at one of the following locations, which are identified in order of their ability to reduce visual quality impacts:

1. The northwest corner of the proposed park expansion site; or
2. Elsewhere within the proposed park expansion site that is not directly adjacent to the waterfront or waterfront promenade, nor within any existing or proposed view corridors or public access corridors

If the District selects the option to relocate Granger Hall to Pepper Park, the District's Development Services Department shall review the proposed location for Granger Hall within Pepper Park prior to issuance of a coastal development permit for the park expansion and confirm that the proposed relocation site is either the northwestern corner of the proposed park expansion site or elsewhere within the proposed park expansion site that is not directly adjacent to the waterfront or waterfront promenade, nor within any existing or proposed view corridors or public access corridors. Design of the proposed buildings shall comply with any development and design standards of the Port Master Plan.

For **Impact-AES-5**:

MM-AES-7: Design the GB Capital Component to Provide Continuity (GB Capital Component). To provide a natural continuity with the existing marina complex, the GB Capital Component shall be designed and constructed using a similar architectural style and materials as the existing Pier 32 Marina. Prior to issuance of the Coastal Development Permit for both phases of the GB Capital Component, the District shall review plans for the GB Capital Component to ensure design continuity with the existing marina complex.

Level of Significance After Mitigation

Implementation of **MM-AES-6** would reduce **Impact-AES-4** by requiring Granger Hall (if the District selects the option to relocate the building to Pepper Park) to be located on either the northwestern corner of the proposed park expansion site, or elsewhere within the proposed park expansion site that extends onto the existing FPR. These locations would reduce the visual quality impact of the potential Granger Hall relocation to Pepper Park because public views are currently not available on the FPR, so although the proposed project would create views within the park expansion area of the existing FPR, these locations would not affect an existing area of the park. Therefore, implementation of **MM-AES-6** would reduce **Impact-AES-4** to a less-than-significant level because of the low viewer sensitivity adjacent to the marine terminal and because the location is away from the waterfront and not within any existing or proposed view corridors or public access corridors.

Implementation of **MM-AES-7** would reduce potential impacts the GB Capital Component by requiring it to be designed and constructed using a similar architectural style and materials as the existing Pier 32 Marina to provide a natural continuity with the existing marina complex. Therefore, **Impact-AES-5** would be less than significant.

Threshold 4: Implementation of the proposed project would create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Impact Discussion

Construction

Light

The proposed project would involve several phases of construction that could include vehicles and equipment that may be sources of nighttime light, including from headlights and floodlights, to illuminate the construction site. Construction would occur in accordance with the National City Noise Control Ordinance (Municipal Code § 10.12.160), which states it is unlawful to operate construction or demolition equipment between the hours of 7 p.m. and 7 a.m. on weekdays or anytime on weekends and holidays. Therefore, project components requiring nighttime lighting would cease by 7 p.m. Any construction that would occur between sunset and 7 p.m. that would require lighting would be lit by floodlights that would be targeted downward at the construction site to minimize spillover. In addition, lights used between sunset and 7 p.m. would not directly interfere with day or nighttime views available from the project site because they would be localized sources of light and located in areas with several existing sources of nighttime light. Nighttime construction lighting would not alter or limit availability of these views.

Glare

Increased truck traffic and transport of construction materials to the project site would temporarily increase glare conditions as a result of light reflecting off windshields and construction materials. However, this increase in glare would be temporary and would not affect existing glare conditions, which already involve varying degrees of vehicle and equipment activity, primarily from marine terminal operations (e.g., Pasha vehicle offloading and storage), personal vessel storage at Pier 32 Marina, and delivery and transport trucks traveling in and out of the project site.

Operation

Light

At the northern portion of the project site (City Program – Development Component), nighttime lighting is primarily from streetlights and safety lighting outside commercial buildings. Nighttime lighting in the southern portion of the project site primarily is from streetlights along Marina Way and 32nd Street, at the Pier 32 Marina facility (i.e., parking lots, outside buildings, and along the docks), safety lighting at Pepper Park and the associated parking lot, and the large floodlights illuminating the parking lots associated with the marine terminal. These sources of light are generally intended to light the area directly under or adjacent to the lamppost and do not result in significant amounts of spillover to nearby unlit areas, such as Paradise Marsh, Sweetwater Channel,

or the National Wildlife Refuge south of Sweetwater Channel. Ambient light can be seen from the urban development of National City to the east of the project site, and from I-5.

In order to maintain a safe, well-lit environment for the visitors and employees of the proposed hotels, modular cabins, RV park, restaurants, and associated parking lots, the proposed project would include nighttime lighting around the proposed commercial, retail, and visitor-serving buildings proposed for the City Program – Development Component, the proposed expanded Pepper Park (Balanced Plan), parking lots, and proposed Pier 32 Marina facilities (GB Capital Component).

Pepper Park and the National City Aquatic Center (Balanced Plan) have lampposts to illuminate the sidewalks winding through the facility and building lights to illuminate around the Aquatic Center and restroom buildings. Because hours of operation for Pepper Park are 6 a.m. to 10:30 p.m., nighttime lighting is necessary during operation and for security after hours. However, the lighting is focused on the most-used portions of the park, and the entire park is not brightly lit. The proposed expansion of Pepper Park would include lampposts and building lighting for safety and would generally be consistent with the existing lighting infrastructure. All outdoor lighting fixtures would be designed, shielded, aimed, located, and maintained to shield properties and not produce glare onto adjacent properties or roadways, consistent with National City Municipal Code Section 18.46.030. Additionally, parking lot fixtures and light fixtures on buildings would be full cut-off fixtures consistent with the City's Municipal Code. Street lighting would be developed consistent with the requirements of the National City Street and Safety Lighting Standards and Guidelines (National City 2016).

Proposed taller hotel buildings (the four- and 11-story buildings) proposed as part of Phase 2 of the GB Capital Component would be visible from a wider viewshed because the height of the buildings would exceed the height of the other existing and proposed buildings in the project vicinity. The 11-story building could feature a visitor-serving facility on the rooftop of the building, which may result in additional sources of light on the top story. This lighting, as well as indoor and outdoor lighting from all of the hotel buildings, the RV sites, the expansion of the marina, the modular cabins, and new retail uses, would add new sources to the nighttime lighting landscape in the National City waterfront area, which could affect nighttime views and disrupt wildlife behaviors (e.g., high-frequency blue light has been shown to disrupt natural circadian rhythms in wildlife [and humans] leading to disruption in sleep and wildlife behaviors). Further, a substantial impact on nighttime views could occur at adjacent land uses, particularly Paradise Marsh, which is not currently lit by any nighttime lighting, except for down-shaded street lights along Marina Way. The introduction of a potentially significant amount of new nighttime lighting from the operation of the GB Capital Component development would result in a potential impact on Paradise Marsh (**Impact AES-6**). **MM-AES-8** and **MM-AES-9** would be implemented during operation of the GB Capital Component to reduce the potential impact on adjacent nighttime views and wildlife behaviors.

Glare

Existing sources of glare at the project site consist of open water, vessels stored on land and in water, windshields of vehicles stored in the marine terminal areas, and delivery vehicles in the project area. Sources of glare from the proposed project would be from additional boats and vessels and the materials used to build the hotels and administration buildings, including glass and metal.

Pier 32 Marina

The existing Pier 32 Marina provides dry storage for vessels and slips for docking boats. The GB Capital Component of the proposed project would increase the total number of slips from approximately 250 to approximately 345 slips for vessels (including those side-tied to the dock) and build new dry storage for a total of 210 vessels. This increase in landside and waterside vessel storage would result in a small increase in reflective surfaces visible from the project site because of the glass, plexiglass, plastic, vinyl, and other reflective materials typically used to construct motorboats, sailboats, and other vessels. However, this increase in reflective surfaces that cause daytime glare would not represent a significant increase in glare at Pier 32 Marina because the boats in slips would be moving with the movement of the water, which would only result in momentary sources of glare, but would not result in sustained glare that would substantially affect daytime views. In addition, the dry boat storage would be an enclosed structure made of materials such as corrugated metal and wood, which would be matte surfaces and would not result in substantial sources of daytime glare. Lastly, the GB Capital Component includes an increase of overwater structures within the marina and on the southern side of the jetty. Because water is also a reflective surface that can create daytime glare, the increase of structures covering the surface of the water would reduce the amount of glare from these areas. Therefore, the proposed improvements at the marina would not result in substantially more sources of daytime glare.

The materials used to construct the facilities at Pier 32 Marina, including the dry dock storage sheds, the modular cabins, and the hotel buildings, may include highly reflective materials that could increase glare at the project site, such as glass and metal. The hotel buildings generally would feature balconies for some, or each, hotel room, which would break up the reflective surfaces and diminish glare. The proposed buildings would be designed and built to complement existing onsite structures and would use similar materials, including corrugated metals. Corrugated metals have an undulated and matted surface, which would neither represent a reflective surface, nor result in a substantial source of glare that would affect daytime views.

Views of the project site, particularly the marina, the four-story hotel, and the 11-story hotel, would be visible from the eastbound SR-54 on-ramp, approximately 0.25-mile east of the project site. Motorists possibly would be exposed to glare from these features: they would have a view of the project site and waterways for a brief time, and any potential views of the waterways would not be altered or otherwise affected by potential moments of glare. Additionally, as discussed above, the design of the buildings, including the materials utilized and the incorporation of balconies, would not result in significant sources of glare.

Marine-Related Industrial

Marine-related industrial uses would not experience a change in operations with the implementation of the proposed project; however, the location of some of these uses is proposed to change with the proposed project (e.g., some of the areas currently utilized by Pasha would be part of the Pepper Park expansion or GB Capital Component). The Pasha Road Closures Component and Pasha Rail Improvement Component would improve efficiency of the Pasha operations, but would not increase capacity or otherwise result in more vehicles being stored onsite. Therefore, operations would remain the same, and the proposed project would not result in increased sources of glare at the marine-related industrial facilities.

City Program Parcels

The hotel and retail development proposed as part of the City Program – Development Component would result in a five-story hotel with retail and restaurant space. The hotel and retail space could be designed with materials such as glass or metal, which could contribute to daytime glare in the northern portion of the project site. However, the hotel and retail space in the City Program parcels would comply with the design standards outlined in the HDSAP and be built with balconies that would interrupt large glass surfaces and prevent substantial sources of glare.

Therefore, due to the existing features at the project site and compliance with applicable design standards and materials of the proposed development, the proposed project would not result in new source of substantial light or glare that would adversely affect a day or nighttime view. The impact would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would create a new source of substantial light that would adversely affect nighttime views in the area. Potentially significant impact(s) include:

Operation

Impact-AES-6: Reduction in Nighttime Views Due to Additional Lighting (GB Capital Component). Substantial lighting would be added to the GB Capital Component area as a result of the proposed development, including an RV park, retail, expanded marina, modular cabins, and hotel buildings that would disrupt wildlife behaviors and affect nighttime views. The impact would be significant.

Mitigation Measures

Operation

For **Impact-AES-6:**

MM-AES-8: Limit Lighting (GB Capital Component). Proposed outdoor lighting in the parking lots, in the marina, and outside of buildings shall not exceed a correlated color temperature of 2,700 Kelvins in order to emit less high frequency blue light. The project proponent shall provide details (i.e., Kelvins) of the proposed lighting to the District's Development Services Department for review and approval prior to commencement of construction of the GB Capital Component.

MM-AES-9: Shield Security and Safety Lighting (GB Capital Component). Security and safety lighting proposed around the RV park, retail, marina, jetty, parking lot, hotels, and other outdoor common spaces shall consist of full cutoff pole-top fixtures with full cutoff shields to minimize light spillage into adjacent properties and land uses. The project proponent shall provide details of the proposed lighting to the District's Development Services Department for review and approval prior to commencement of construction of the GB Capital Component.

Level of Significance After Mitigation

Operation

Implementation of mitigation measures **MM-AES-8** and **MM-AES-9** would reduce the potential impacts on nighttime views of the adjacent land uses from additional lighting sources by requiring lighting features that would emit less high-frequency blue light and reduce light spillage from the GB Capital Component to the adjacent land uses. Therefore, **Impact-AES-6** would be reduced to less than significant.

Section 4.2
Air Quality and Health Risk

4.2.1 Overview

This section describes the existing conditions and applicable laws and regulations for air quality and health risk. The section also discusses the proposed project's potential to increase air emissions in the region. Impacts on air quality are considered significant if the proposed project were to (1) conflict with or obstruct implementation of the applicable air quality plan, (2) result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard, (3) expose sensitive receptors to substantial pollutant concentrations, or (4) result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

This section relies on the emission modeling descriptions provided in Appendix F. Table 4.2-1 summarizes the significant impacts and mitigation measures discussed in this section.

Table 4.2-1. Summary of Significant Air Quality and Health Risk Impacts and Mitigation Measures

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-AQ-1: New Land Use Designations Not Accounted for in the Regional Air Quality Strategy (RAQS) and State Implementation Plan (SIP) (All Project Components)	**MM-AQ-1:** Update the RAQS and SIP with New Growth Projections (All Project Components)	Less than Significant	The temporary inconsistency with the current RAQS and SIP associated with the proposed land use designation changes would be rectified when the RAQS and SIP are updated.
Impact-AQ-2: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Construction (All Project Components)	**MM-AQ-2:** Implement Diesel Emission-Reduction Measures During Construction (All Project Components) **MM-AQ-3:** Implement Fugitive Dust Control During Construction (All Project Components) **MM-AQ-4:** Use Low-VOC Interior and Exterior Coatings During Construction (GB Capital Component and City Program – Development Component)	Less than Significant	Mitigation would reduce construction-related emissions below a level of significance during individual component and overlapping construction.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
	MM-AQ-5: Use Modern Harbor Craft During Construction Activities (GB Capital Component and Balanced Plan) **MM-AQ-6:** Stagger Overlapping Construction Phases and Components (All Project Components)		
Impact-AQ-3: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Operations (GB Capital Component, City Program Component, and Balanced Plan)	**MM-AQ-7**: Restrict Installation of Fireplaces and Firepits in New Construction (City Program, GB Capital Component [Phase 1 and Phase 2], and Balanced Plan)	Less than Significant	Mitigation restricting use of woodburning fireplaces and firepits at the City Program – Development Component, the GB Capital Component, and the Balanced Plan would reduce volatile organic compound (VOC) emissions to a level below the threshold.
Impact-AQ-4: Health Effects During Construction (All Project Components)	**MM-AQ-2** through **MM-AQ-6**	Less than Significant	Mitigation would reduce construction-related emissions that contribute to regional and local health effects below a level of significance.

4.2.2 Existing Conditions

4.2.2.1 Climate and Atmospheric Conditions

Regional

The proposed project is within the San Diego Air Basin (SDAB), which covers all of San Diego County. The SDAB is bordered by the Pacific Ocean to the west, the South Coast Air Basin (SCAB) to the north, the Salton Sea Air Basin to the east, and the U.S.–Mexico border to the south.

The climate of the San Diego region is classified as Mediterranean but is incredibly diverse because of the topography. The climate is dominated by the Pacific High-pressure system that results in mild, dry summers and mild, wet winters. The City of San Diego experiences an average of 201 days above 70°F and 9–13 inches of rainfall annually (mostly, November–March). El Niño and La Niña patterns have large effects on the annual rainfall received in San Diego (SDAPCD 2020a).

An El Niño is a warming of the surface waters of the eastern Pacific Ocean. It is a climate pattern that occurs across the tropical Pacific Ocean that is associated with drastic weather occurrences, including enhanced rainfall in Southern California. La Niña is a term for cooler than normal sea

surface temperatures across the Eastern Pacific Ocean. The San Diego region receives less than normal rainfall during La Niña years (SDAPCD 2020a).

The Pacific High drives the prevailing winds in the SDAB. The winds tend to blow onshore in the daytime and offshore at night. In the summer, an inversion layer is created over the coastal areas and increases the ozone (O_3) levels. In the winter, the San Diego region often experiences a shallow inversion layer that tends to increase carbon monoxide (CO) and particulate matter (PM) less than or equal to 2.5 microns in diameter (PM2.5) concentration levels due to the increased use of residential wood burning (SDAPCD 2020a).

In the fall months, the SDAB is often impacted by Santa Ana winds. These winds are the result of a high-pressure system over the Nevada-Utah region that overcomes the westerly wind pattern and forces hot, dry winds from the east to the Pacific Ocean. These winds are powerful and incessant. They blow the air basin's pollutants out to sea. However, a weak Santa Ana can transport air pollution from the South Coast Air Basin and greatly increase the region's O_3 concentrations. A strong Santa Ana also primes the vegetation for firestorm conditions (SDAPCD 2020a).

Local

There is no weather station within the project area. The weather station closest to the project site is the Chula Vista Station, which is approximately 2 miles to the southeast. Given its proximity, historic climatic conditions at Chula Vista over the period of record (September 1918–May 2016) are assumed to be representative of the prevailing climatic conditions. The annual average temperature at Chula Vista is 61°F, with an average winter temperature of 55°F and an average summer temperature of 67°F (WRCC 2012a). Total annual precipitation averages 9.73 inches. The majority of precipitation occurs between November and March, with January as the wettest month (WRCC 2012b).

The project site is in the vicinity of two wind monitoring stations operated by the San Diego Air Pollution Control District (SDAPCD). The Chula Vista Field Station, approximately 3.5 miles southeast of the project site, and the San Diego/Lindbergh Field Station, approximately 6.5 miles northwest of the project site. Wind patterns at the Chula Vista station indicate a prominence of westerly winds that average 5.1 miles per hour (mph) (2.3 meters per second), with calm winds present approximately 5.76% of the time. Wind monitoring data recorded at the San Diego/Lindbergh Field Station indicate a more west–northwest prominence, averaging 7.6 mph (3.4 meters per second) with calm winds present approximately 0.55% of the time (Gould pers. comm.). A wind rose showing wind directions, speeds, and frequency at stations in the project vicinity is shown in Appendix F.

4.2.2.2 Air Quality Conditions

Regional Attainment

The Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (EPA) to designate areas within the country as either attainment or nonattainment for each criteria pollutant based on whether the National Ambient Air Quality Standards (NAAQS) have been achieved. Similarly, the California CAA requires the California Air Resources Board (CARB) to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the California Ambient Air Quality Standards (CAAQS) have been achieved. If a pollutant concentration

is lower than the state or federal standard, the area is classified as being in attainment for that pollutant. If a pollutant violates the standard, the area is considered a nonattainment area. If data are insufficient to determine whether a pollutant is violating the standard, the area is designated unclassified.

Under the California CAA, areas are designated as nonattainment for a pollutant if air quality data show that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard and are not used as a basis for designating areas as nonattainment. The attainment status of San Diego County is summarized in Table 4.2-2.

Table 4.2-2. Federal and State Attainment Status for San Diego County

Criteria Pollutant	Federal Designation	State Designation
Ozone (O_3) (8-hour)	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment	Attainment
Respirable Particulate Matter (PM10)	Unclassifiable/Attainment	Nonattainment
Fine Particulate Matter (PM2.5)	Attainment	Nonattainment
Nitrogen Dioxide (NO_2)	Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Lead (Pb)	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Unclassified
Visibility	(No federal standard)	Unclassified

Sources: SDAPCD 2021a.
Note: At the time of designation, if the available data do not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

Local Criteria Pollutant Concentrations

SDAPCD maintains and operates a network of ambient air monitoring stations throughout the county. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and NAAQS. The ambient monitoring station closest to the proposed project is the Chula Vista station (CARB 80114), which is approximately 3.1 miles to the southeast of the project site.

Concentrations of O_3, nitrogen dioxide (NO_2), PM less than or equal to 10 microns in diameter (PM10) and PM2.5 from the Chula Vista station over 5 years (2015–2019) of complete data are presented in Table 4.2-3. Because the Chula Vista station does not monitor CO, data was taken from the Rancho Carmel Drive station (CARB 80201), the next closest ambient monitoring station (21 miles northeast of the project site) with CO data for 2015 to 2019. Monitoring has shown the following pollutant concentrations trends over the period of record: the 8-hour O_3 CAAQS was exceeded once in 2017 and twice in 2019; 24-hour PM10 CAAQS was exceeded once in 2017 and once in 2019; and 24-hour PM2.5 NAAQS was exceeded once each in 2017 and 2018. No violations of the carbon monoxide (CO) CAAQS or NAAQS or the nitrogen dioxide (NO_2) NAAQS were recorded. As discussed further below, the CAAQS and NAAQS define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on people and the environment. Existing violations of the O_3, PM10, and PM2.5 ambient air quality standards indicate

that certain individuals exposed to this pollutant may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

Table 4.2-3. Ambient Background Concentrations from Nearby Monitoring Stations

Pollutant Standards	2015	2016	2017	2018	2019
1-Hour Ozone (O_3)					
Maximum Concentration (ppm)	0.088	0.073	0.085	0.076	0.090
Number of Days Standard Exceeded					
CAAQS 1-hour (>0.09 ppm)	0	0	0	0	0
8-Hour Ozone (O_3)					
State Maximum Concentration (ppm)	0.066	0.068	0.074	0.064	0.077
National Maximum Concentration (ppm)	0.066	0.068	0.074	0.064	0.076
National 4th Highest Concentration (ppm)	0.061	0.061	0.064	0.057	0.065
Number of days standard exceeded					
CAAQS 8-hour (>0.070 ppm)	0	0	1	0	2
NAAQS 8-hour (> 0.075 ppm)	0	0	0	0	2
Carbon Monoxide (CO)[1]					
Maximum Concentration 8-hour (ppm)	1.4	1.2	1.5	1.4	2.5
Maximum Concentration 1-hour (ppm)	2.4	2.0	2.0	1.9	4.1
Number of days standard exceeded					
NAAQS 8-hour (≥9 ppm)	0	0	0	0	0
CAAQS 8-hour (≥9.0 ppm)	0	0	0	0	0
NAAQS 1-hour (≥35 ppm)	0	0	0	0	0
CAAQS 1-hour (≥20 ppm)	0	0	0	0	0
Nitrogen Dioxide (NO_2)					
Maximum 1-hour Concentration (ppb)	49.0	54.0	57.0	52.0	50.0
Annual Average Concentration (ppb)	10	9	*	9	8
Number of Days Standard Exceeded					
CAAQS 1-Hour (18 ppb)	0	0	0	0	0
NAAQS 1-Hour (0.100 ppb)	0	0	0	0	0
Suspended Particulates (PM10)					
State Maximum 24-hour Concentration (µg/m³)	45.0	48.0	61.0	45.0	69.4
National Maximum 24-hour Concentration (µg/m³)	46.0	48.0	59.0	45.0	68.2
State Annual Average Concentration (CAAQS = 20 µg/m³)	19.8	21.8	21.7	*	--
Number of Days Standard Exceeded					
CAAQS 24-hour (>50 µg/m³)	0	0	1	0	1
NAAQS 24-hour (>150 µg/m³) – *Expected Days*	0	0	0	0	--

Pollutant Standards	2015	2016	2017	2018	2019
Suspended Particulates (PM2.5)					
National Maximum 24-hour Concentration (µg/m^3)	33.5	23.9	42.7	41.9	18.9
24-hour Standard 98th Percentile (µg/m^3)	18.9	17.9	*	29.4	16.5
National Annual Average Concentration (NAAQS = 12.0 µg/m^3)	8.3	8.7	*	9.9	8.1
State Annual Average Concentration (CAAQS = 12 µg/m^3)	8.4	8.7	*	10.0	--
Number of Days Standard Exceeded					
NAAQS 24-Hour (>35 µg/m^3)	0	0	1	1	0

Source: CARB 2021, EPA 2021, Data compiled by ICF.
[1] Values for CO were not available at the Chula Vista monitoring station, so values from the Rancho Carmel Drive station were used.
Note: values denoted with an "*" indicate that they were not available at the time data was accessed.
ppm = parts per million; µg/m^3 = micrograms per cubic meter; ppb = parts per billion; CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards

Local Toxic Air Contaminant Concentrations

Between 1990 and 2007, CARB monitored outdoor concentrations for various toxic air contaminants (TACs) at two sites in the SDAB: Chula Vista and El Cajon. Based on this information, CARB estimated the overall ambient risk from all pollutants in the SDAB at 607 chances per million, 420 chances per million of which were attributed to diesel particulate matter (DPM) (CARB 2009). Note that DPM is not directly monitored because an accepted measurement method does not currently exist, but CARB estimated concentrations based on monitored PM10 data and the results from several studies on chemical speciation of ambient data (e.g., ratio of DPM to monitored PM10).

The California Office of Environmental Health Hazard Assessment (OEHHA) maintains the California Communities Environmental Health Screening Tool (CalEnviroScreen), which provides a relative ranking of communities based on a selected group of environmental, health, demographic, and socioeconomic indicators. The resultant score is the relative pollution burden and vulnerabilities in one census tract compared to others; the score is not a measure of health risk. Each tract's score is then ranked relative to all areas in the state. Those areas with a high score and percentile have relatively high pollution burdens and population sensitivities; those areas with low score and percentile values have relatively lower pollution burdens and population sensitivities. Thirty-eight communities in the San Diego region have been identified as disadvantaged and will be the target of cap-and-trade investment to improve public health, quality of life, and economic opportunity (Cal/EPA 2017). Neighborhoods near the project site represent some of the highest rankings (e.g., worst air quality) in the state. The project site (within census tract 6073021900) is surrounded by tracts that are within the worst 85–100% in the state, including census tracts to the immediate south (census tract 6073012502), east (census tract 6073011602), and within the Barrio Logan community to the north (census tract 6073003601).

Note that while the results of CalEnviroScreen provide information on background pollution that allows the state to prioritize funding resources, the scoring results are not directly applicable to project-level or cumulative impact analyses required under CEQA. As such, the information provided by CalEnviroScreen cannot substitute for analyzing a specific project's cumulative impacts as

required in a CEQA environmental review (Cal/EPA 2017). Accordingly, the CalEnviroScreen information is presented for illustrative purposes only.

The project site is located within the Portside Environmental Justice Neighborhoods,[1] as classified by CARB's Community Air Protection Program. These neighborhoods include several census tracts with high (poor) ratings as part of the CalEnviroScreen 3.0, including four census tracts that are in the 98th percentile in the state and another eight that are in the 85th percentile. Over 50,000 residents live in this area and are subject to significant pollution exposure (SDAPCD 2018). Along with other areas selected for monitoring throughout the state, future actions will include additional new actions through potential regulations, focused incentive investments, enforceable agreements, and engagement with local land use authorities to reduce emissions and exposure to air pollution.

4.2.2.3 Pollutants of Concern

Criteria Pollutants

As discussed above, the federal and state governments have established NAAQS and CAAQS, respectively, for six criteria pollutants: O_3, CO, lead (Pb), NO_2, sulfur dioxide (SO_2), and PM, which consists of PM10 and PM 2.5. Ozone is considered a regional pollutant because its precursors affect air quality on a regional scale. Pollutants such as CO, NO_2, SO_2, and Pb are considered local pollutants that tend to accumulate in the air locally. PM is both a local and a regional pollutant. The primary criteria pollutants of concern generated by the project are ozone precursors (volatile organic compounds [VOC] and nitrogen oxides [NO_X]), CO, and PM.[2, 3]

All criteria pollutants can have human health and environmental effects at certain concentrations. The ambient air quality standards for these pollutants (Table 4.2-3) are set to protect public health and the environment within an adequate margin of safety (CAA Section 109). Epidemiological, controlled human exposure, and toxicology studies evaluate potential health and environmental effects of criteria pollutants, and form the scientific basis for new and revised ambient air quality standards.

Principal characteristics and possible health and environmental effects from exposure to the primary criteria pollutants generated by the project are discussed below.

- **Ozone**, a component of urban smog, is photochemical oxidant that is formed when VOC and NO_X (both byproducts of the internal combustion engine) react with sunlight. VOC are compounds made up primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of VOC are emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of

[1] Community of Portside Environmental Justice Neighborhoods includes Barrio Logan and portions of National City, Sherman Heights, and Logan Heights. This includes the following census tracts: 6073005000, 6073004900, 6073003902, 6073003601, 6073003901, 6073005100, 6073003603, 6073004000, 6073003502, 6073021900, 6073004700, and 6073011602.

[2] As discussed above, there are also ambient air quality standards for SO_2, Pb, sulfates, hydrogen sulfide, vinyl chloride, and visibility particulates. However, these pollutants are typically associated with industrial sources, which are not included as part of the project. Accordingly, they are not evaluated further.

[3] Most emissions of NO_X are in the form of NO (Reşitoğlu 2018). Conversion to NO_2 occurs in the atmosphere as pollutants disperse downwind. Accordingly, NO_2 is not considered a local pollutant of concern for the proposed project and is not evaluated further.

household consumer products such as aerosols. The two major forms of NO_X are nitric oxide (NO) and NO_2. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen. In addition to serving as an integral participant in ozone formation, NO_X also directly acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

Ozone poses a higher risk to those who already suffer from respiratory diseases (e.g., asthma), children, older adults, and people who are active outdoor. Exposure to ozone at certain concentrations can make breathing more difficult, cause shortness of breath and coughing, inflame and damage the airways, aggregate lung diseases, increase the frequency of asthma attacks, and cause chronic obstructive pulmonary disease. Studies show associations between short-term ozone exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to ozone may increase the risk of respiratory-related deaths (EPA 2019a). The concentration of ozone at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of ozone and a 50% decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggests that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum ozone concentration reaches 80 parts per billion (EPA 2019b).

In addition to human health effects, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. Ozone can also act as a corrosive and oxidant, resulting in property damage such as the degradation of rubber products and other materials.

- **Nitrogen dioxide** is formed by the combination of NO and oxygen through internal combustion. Long-term exposure to NO_2 can aggravate respiratory diseases, such as asthma, leading to increased hospital admissions (EPA 2019c). Controlled studies demonstrate effects (airway reactivity) among asthmatics at a short-term (less than 3 hours) exposure to 0.3 part per million NO_2. Effects among healthy individuals occurred at high levels of exposure (1.5 to 2 parts per million) (McConnell et al. 2002). For reference, the 1-hour CAAQS for NO_2 is 0.18 part per million (see Table 4.2-3). In additional to human health effects, NO_2 can also reduce visibility and react with water, oxygen, and other chemicals to contribute to acid rain, which can harm sensitive ecosystems (EPA 2019c).
- **Carbon monoxide** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. In the study area, high CO levels are of greatest concern during the winter, when periods of light winds combine with the formation of ground-level temperature inversions from evening through early morning. These conditions trap pollutants near the ground, reducing the dispersion of vehicle emissions. Moreover, motor vehicles exhibit increased CO emission rates at low air temperatures. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation. Exposure to CO at concentrations above the CAAQS or NAAQS (see Table 4.2-4) can also cause fatigue, headaches, confusion, dizziness, and chest pain. There are no ecological or environmental effects for ambient CO (CARB 2019).

- **Particulate matter** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now regulated—inhalable coarse particles, or PM10, and inhalable fine particles, or PM2.5. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind on arid landscapes also contributes substantially to local particulate loading. Additionally, secondary formation of PM, primarily in the form of fine particulate, occurs through the chemical transformation of precursors such as NO_X, SO_2, ammonia, and VOCs.

  Particulate pollution can be transported over long distances and may adversely affect humans, especially people who are naturally sensitive or susceptible to breathing problems. Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease. Other symptoms of exposure may include nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. Exposure to concentrations of PM above the current ambient air quality standards may result in these health effects (EPA 2019d). Similar to O_3, the elderly and those with preexisting heart and lung diseases are at greater risk to the harmful effects of PM exposure. Children are also at increased risk because they breathe faster than adults, and therefore inhale more air per pound of body weight and tend to spend more time outdoors. The CAAQS and NAAQS for PM are set to protect these sensitive populations and define the number of particles that can be present in outdoor air without threatening the health of infants, children, or the elderly (CARB 2015). The CAAQS and NAAQS for PM are shown in Table 4.2-4.

  Depending on its composition, both PM10 and PM2.5 can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (EPA 2019d).

- **Sulfur dioxide** is a product of fuel combustion. The predominant source of SO_2 emissions within the county is mobile source fuel combustion, primarily aircraft, ocean going vessels, and on-road vehicles. In recent years emissions of SO_2 have been significantly reduced by the increasingly stringent controls placed on the sulfur content of fuels used in stationary sources and mobile sources. SO_2 is a precursor to fine PM formation in the form of sulfates, such as ammonium sulfate. Short-term exposure to SO_2 can aggravate the respiratory system, making breathing difficult. Controlled laboratory studies indicate that brief exposure (5 to 10 minutes) of exercising asthmatics to an average SO_2 level of 0.4 part per million can result in increases in air resistance. Healthy adults do not show any symptoms to SO_2 at levels as high 1 part per million, even after up to 3 hours of exposure. Based on the concentration needed to protect sensitive individuals (e.g., asthmatics), CARB and EPA have adopted the CAAQS and NAAQS for SO_2 (see Table 4.2-3) (SCAQMD 2017). In addition to public health impacts, SO_2 can also affect the environment by damaging foliage and decreasing plant growth (EPA 2019e).

- **Lead** is a soft metal that was previously added to gasoline and emitted to the environment through motor vehicle exhaust. Since lead was removed from gasoline, emissions have declined, and the primary source of emissions is now metal processing facilities and leaded aviation gasoline. Lead can also be resuspended into the air when contaminated soil or paints are disturbed. Lead emissions can be inhaled and ingested, leading to accumulation of lead particles in bone. Lead exposure can lead to cognitive function decrements, behavioral problems, kidney and heat disease, decreased immunity and red blood cell counts, and reproductive and developmental effects (EPA 2019f).

Health Effects of Criteria Air Pollutants

Criteria air pollutants are recognized to have a variety of health effects on humans. Research by CARB shows that exposure to high concentrations of air pollutants can trigger respiratory diseases, such as asthma, bronchitis, and other respiratory ailments; and cardiovascular diseases. A healthy person exposed to high concentrations of air pollutants may become nauseated or dizzy, may develop a headache or cough, or may experience eye irritation and/or a burning sensation in the chest. O_3 is a powerful irritant that attacks the respiratory system, leading to the damage of lung tissue. Inhaled particulate matter, NO_2, and SO_2 can directly irritate the respiratory tract, constrict airways, and interfere with the mucous lining of the airways. Exposure to CO, when absorbed into the bloodstream, can endanger the hemoglobin, the oxygen-carrying protein in blood, by reducing the amount of oxygen that reaches the heart, brain, and other body tissues. When air pollutant levels are high, children, the elderly, and people with respiratory problems are advised to remain indoors. Outdoor exercise also is discouraged because strenuous activity may cause shortness of breath and chest pains. A brief discussion of the criteria pollutants and their effects on human health and the environment is provided in Table 4.2-4.

Table 4.2-4. Health Effects Summary of the Major Criteria Air Pollutants

Pollutants	Sources	Primary Effects
Ozone (O_3)	• Atmospheric reaction of organic gases with NO_2 in sunlight	• Aggravation of respiratory and cardiovascular diseases • Irritation of eyes • Impairment of cardiopulmonary function • Plant leaf injury
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust • High temperature stationary combustion • Atmospheric reactions	• Aggravation of respiratory illness • Reduced visibility • Reduced plant growth • Formation of acid rain
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon containing substances, such as motor exhaust • Natural events, such as decomposition of organic matter	• Reduced tolerance for exercise • Impairment of mental function • Impairment of fetal development • Death at high levels of exposure • Aggravation of some heart diseases (angina)
Particulate Matter (PM2.5 and PM10)	• Stationary combustion of solid fuels • Construction activities • Industrial processes • Atmospheric chemical reactions	• Reduced lung function • Aggravation of the effects of gaseous pollutants • Aggravation of respiratory and cardio-respiratory diseases • Increased cough and chest discomfort • Soiling • Reduced visibility
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels • Smelting of sulfur-bearing metal ores • Industrial processes	• Aggravation of respiratory diseases (asthma, emphysema) • Reduced lung function • Irritation of eyes • Reduced visibility • Plant injury

Pollutants	Sources	Primary Effects
Lead (Pb)	• Contaminated soil	• Deterioration of metals, textiles, leather, finishes, coatings, etc. • Impairment of blood function and nerve construction • Behavioral and hearing problems in children

Source: SCAQMD 2005

Toxic Air Contaminants

TACs are pollutants that have no ambient standard but pose the potential to increase the risk of developing cancer or acute or chronic health risks. The most relevant TAC associated with the proposed project is DPM, which was established as a TAC in 1998, while some of the chemicals in diesel exhaust, such as benzene and formaldehyde, had previously been identified as TACs and listed as carcinogens under either the state's Proposition 65 or federal Hazardous Air Pollutants program. The diesel emissions that are generated within the Barrio Logan community and surrounding areas have been previously documented as posing potential hazard to residents and visitors (City of San Diego 2013).

For TACs like DPM that are known or suspected carcinogens, CARB has consistently found that there are no levels or thresholds below which exposure is risk-free. Therefore, no NAAQS or CAAQS exist for TACs. Individual TACs vary greatly in the risks they present. At a given level of exposure, one TAC may pose a hazard that is many times greater than another. TACs are identified and their toxicity is studied by the OEHHA. Adverse health effects of TACs can be carcinogenic (cancer-causing), short-term (acute) noncarcinogenic, and long-term (chronic) noncarcinogenic. Direct exposure to these pollutants has been shown to cause cancer, birth defects, damage to the brain and nervous system, and respiratory disorders.

4.2.2.4 Sensitive Receptors

The impact of air pollutant emissions on sensitive receptors of the population is a special concern. Sensitive receptors are defined as locations where pollutant-sensitive members of the population may reside or where the presence of air pollutant emissions could adversely affect use of the land. CARB has identified the following people as the most likely to be affected by air pollution: children younger than 14, the elderly older than 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors (CARB 2005). Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder-care facilities, elementary schools, and parks. Most health studies indicate that health effects are strongest within 1,000 feet of emission sources (CARB 2005).

The project includes multiple landside and waterside uses, including maritime terminal, marine-related industrial, commercial recreation, commercial, recreational boating, parks, streets, bikeways, and manufacturing uses at the terminal, and parks. Sensitive land uses within the project boundary include Pepper Park and Pier 32 marina uses (which includes public promenades) at the southwestern edge of the project boundary, and the Bayshore Bikeway Component, which may ultimately traverse or span the project area, depending on which route is built.

Sensitive land uses outside and near the project boundary include multi- and single-family residential uses north of Bay Marina Drive, with the closest residential unit approximately 300 feet north of the City Program – Development Component and 650 feet north of Bay Marina Drive.

4.2.3 Applicable Laws and Regulations

The air quality management agencies of direct importance to the proposed project are EPA, CARB, and SDAPCD. EPA has established federal air quality standards for which CARB and SDAPCD have primary implementation responsibility. CARB and SDAPCD are also responsible for ensuring that state air quality standards are met. The following sections describe regulations applicable to the project.

4.2.3.1 International

International Maritime Organization International Convention for the Prevention of Pollution from Ships Annex VI

The International Maritime Organization (IMO) International Convention for the Prevention of Pollution from Ships (MARPOL) Annex VI, which came into force in May 2005, set new international NO_X emission limits on marine engines over 130 kilowatts (kW) installed on new vessels retroactive to the year 2000. In October 2008, IMO adopted amendments to international requirements under MARPOL Annex VI, which introduced NO_X emission standards for new engines and more stringent fuel quality requirements (DieselNet 2013, IMO 2008). The Annex VI North American Emission Control Area (ECA) requirements applicable to the proposed project include the following.

- Caps on the sulfur content of fuel as a measure to control sulfur oxide (SO_X) emissions and, indirectly, PM emissions. For ECAs, the sulfur limits are capped at 1.0% starting in 2012 and 0.1% starting in 2015.[4] The analysis herein assume full compliance with MARPOL Annex VI SO_X limits. The Port of San Diego is within an ECA.
- NO_X engine emission rate limits for new engines. Tier I and Tier II limits effective 2000 and 2011 are global limits, whereas Tier III limits, effective in 2016, apply only in NO_X ECAs.

4.2.3.2 Federal

Clean Air Act and National Ambient Air Quality Standards

The CAA was first enacted in 1963 and has been amended numerous times in subsequent years (1967, 1970, 1977, and 1990). The CAA establishes the NAAQS and specifies future dates for achieving compliance. The CAA also mandates that each state submit and implement a State Implementation Plan (SIP) for local areas not meeting those standards. The plans must include pollution control measures that demonstrate how the standards will be met. Because the Port of San Diego is within the SDAB, it is in an area designated as nonattainment for certain pollutants that are regulated under the CAA.

[4] The sulfur requirements in ECAs are 1.0% as of July 2010 and 0.1% starting in January 2015. North America was designated as an ECA in August 2012, and the sulfur requirements became applicable at the time of designation.

The 1990 amendments to the CAA identify specific emission-reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones. The sections of the CAA that would most substantially affect the development of the proposed project include Title I (Nonattainment Provisions) and Title II (Mobile-Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for criteria pollutants. Table 4.2-5 shows the NAAQS currently in effect for each criteria pollutant. The NAAQS were amended in July 1997 to include an 8-hour standard for O_3 and adopt a standard for PM2.5. The 8-hour O_3 NAAQS was further amended in October 2015.

Table 4.2-5. Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS[1]	NAAQS[2]
Ozone (O_3)	1 hour	0.09 ppm[3]	--
	8 hour	0.070 ppm	0.070 ppm
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm
	8 hour	9.0 ppm	9 ppm
Nitrogen Dioxide (NO_2)	1 hour	0.18 ppm	100 ppb
	Annual Arithmetic Mean	0.030 ppm	53 ppb
Sulfur Dioxide (SO_2)	1 hour	0.25 ppm	75 ppb
	24 hour	0.04 ppm	0.14 ppm
Respirable Particulate Matter (PM10)	24 hour	50 µg/m^3	150 µg/m^3
	Annual Arithmetic Mean	20 µg/m^3	--
Fine Particulate Matter (PM2.5)	24 hour	--	35 µg/m^3
	Annual Arithmetic Mean	12 µg/m^3	12.0 µg/m^3
Sulfates	24 hour	25 µg/m^3	--
Lead (Pb)	30 day average	1.5 µg/m^3	--
	Calendar quarter	--	1.5 µg/m^3
	Rolling 3-Month Average	--	0.15 µg/m^3
Hydrogen Sulfide	1 hour	0.03 ppm	--
Vinyl Chloride	24 hour	0.01 ppm	--

Source: CARB 2016.
[1] The CAAQS for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM10, and PM2.5 are values not to be exceeded. All other California standards shown are values not to be equaled or exceeded.
[2] The NAAQS, other than O_3 and those based on annual averages, are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For PM2.5, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, is equal to or less than the standard.
ppm = parts per million by volume; ppb = parts per billion; µg/m^3 = micrograms per cubic meter.

EPA Emission Standards for Non-Road Diesel Engines

To reduce emissions from non-road (off-road) diesel equipment, EPA established a series of increasingly strict emission standards for new non-road diesel engines. Tier 1 standards were phased in on newly manufactured equipment from 1996 through 2000 (year of manufacture), depending on the engine horsepower (hp) category. Tier 2 standards were phased in on newly

manufactured equipment from 2001 through 2006. Tier 3 standards were phased in on newly manufactured equipment from 2006 through 2008. Tier 4 standards, which require advanced emission control technology, were phased in from 2008 through 2015.

EPA Non-Road Diesel Fuel Rule

With this rule, EPA set sulfur limitations for non-road diesel fuel, including large recreational vessels, locomotives, and harbor craft. Under this rule, the diesel fuel was limited to 500 parts per million (ppm) starting June 1, 2007, and further limited to 15 ppm sulfur content (ultra-low-sulfur diesel) starting January 1, 2010, for non-road fuel, and June 2012 for marine fuels (EPA 2004).

EPA On-Road Diesel Fuel Rule

In December 2000, EPA signed the Heavy-Duty Highway Rule, which reduces emissions from on-road, heavy-duty diesel trucks by establishing a series of increasingly strict emission standards for new engines. Manufacturers were required to produce new diesel vehicles that meet PM and NO_X emission standards beginning with model year 2007 with the phase-in period being between 2007 and 2010. The phase-in was based on a percent-of-sales basis: 50% from 2007 to 2009 and 100% in 2010 (EPA 2001).

Corporate Average Fuel Economy Standards

The Corporate Average Fuel Economy Standards (CAFÉ) were first enacted in 1975 to improve the average fuel economy of cars and light duty trucks.

On August 2, 2018, the National Highway Traffic Safety Administrative (NHTSA) and EPA proposed to amend the fuel efficiency standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026 by maintaining the current model year 2020 standards through 2026 (Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). On September 19, 2019, EPA and NHTSA issued a final action on the One National Program Rule, which is consider Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards. The One National Program Rule enables EPA/NHTSA to provide nationwide uniform fuel economy and greenhouse gas (GHG) vehicle standards, specifically by (1) clarifying that federal law preempts state and local tailpipe GHG standards, (2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and (3) withdrawing California's CAA preemption waiver to set state-specific standards.

EPA and NHTSA published their decisions to withdraw California's waiver and finalize regulatory text related to the preemption on September 27, 2019 (84 *Federal Register* [FR] 51310). California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. United States Department of Transportation et al*., 1:19-cv-02826, U.S. District Court for the District of Columbia). On October 28, 2019, the Union of Concerned Scientists, Environmental Defense Fund (EDF), and other groups filed a protective petition for review after the federal government sought to transfer the suit to the D.C. Circuit (*Union of Concerned Scientists v. National Highway Traffic Safety Administration*). Opening briefs for the petition are currently scheduled to be completed on November 23, 2020. The lawsuit filed by California and others is stayed pending resolution of the petition.

EPA and NTHSA published final rules to amend and establish national CO_2 and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 FR 24174). The revised rule

changes the national fuel economy standards for light duty vehicles from 50.4 mpg to 40.5 mpg in future years. This new rule rolls back California fuel efficiency standards for on-road passenger vehicles. California and 22 other states are currently challenging this new rule in the court system, and it is reasonably foreseeable that the state will be successful in its legal challenges, for the reasons outlined in the state's lawsuit[5] and on the CARB website.[6] Furthermore, on January 20, 2021, President Biden signed an executive order directing the Government to revise fuel economy standards with the goal of further reducing emissions.[7] In February 2021 the Biden administration Department of Justice also asked courts to put the litigation on hold while the administration "reconsidered the policy decisions of a prior administration." More recently, on April 22, 2021, the Biden Administration and the NHTSA proposed to formally roll back portions of the SAFE Rule, thereby restoring California's right to set more stringent fuel efficiency standards. The Biden Administration and NHTSA is also planning to issue a new rule to increase the national fuel economy standard for light duty vehicles beyond those in Part Two of the SAFE Vehicles Rule (NHTSA 2021).

4.2.3.3 State

California Clean Air Act

The California CAA, signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. The CAAQS incorporate additional standards for most of the criteria pollutants and set standards for other pollutants recognized by the state. In general, the California standards are more health protective than the corresponding NAAQS. California has also set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Table 4.2-5 shows the CAAQS currently in effect for each criteria pollutant.

CARB and local air districts bear responsibility for achieving California's air quality standards, which are to be achieved through district-level air quality management plans that would be incorporated into the SIP. In California, EPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts. CARB traditionally has established state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving SIPs.

The California CAA substantially adds to the authority and responsibilities of air districts. The act designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The act also emphasizes the control of "indirect and area-wide sources" of air pollutant emissions. The California CAA gives local air pollution control districts explicit authority to regulate indirect sources of air pollution and to establish traffic control measures.

[5] *State of California et al. v. Chao et al.* (Case 1:19-cv-02826) available at: https://oag.ca.gov/system/files/attachments/press_releases/California%20v.%20Chao%20complaint%20%2800000002%29.pdf

[6] https://ww2.arb.ca.gov/resources/documents/carb-waiver-timeline

[7] https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-protecting-public-health-and-environment-and-restoring-science-to-tackle-climate-crisis/

Toxic Air Contaminants Regulations

Tanner Air Toxics Act and Air Toxics Hot Spots Information and Assessment Act of 1987

California regulates TACs primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Toxic Air Contaminant Identification and Control Act (AB 1807) created California's program to reduce exposure to air toxics. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) supplements the AB 1807 program by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks. In August 1998, CARB identified particulate emissions from diesel-fueled engines as TACs. In September 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. As an ongoing process, CARB reviews air contaminants and identifies those that are classified as TACs. CARB also continues to establish new programs and regulations for the control of TACs, including DPM, as appropriate. Among the programs and strategies CARB has developed to reduce diesel emissions for various sources, many are applicable to sources that are present at the Port, including off-road sources (cargo-handling equipment, locomotives, construction equipment), on-road trucks (drayage trucks), and marine vessels (harbor craft, ocean going vessels, and shore power).

Senate Bill 535 and Assembly Bill 1550

Senate Bill (SB) 535 requires the California Environmental Protection Agency (Cal/EPA) to identify disadvantaged communities based on geographic, socioeconomic, public health, and environmental hazard criteria. It also requires that the investment plan developed and submitted to the Legislature pursuant to AB 1550 allocate no less than 25% of available proceeds from the carbon auctions held under AB 32 to projects that will benefit these disadvantaged communities. At least 10% of the available funds from these auctions must be directly invested in such communities. Because CalEnviroScreen has been developed to identify areas disproportionately affected by pollution and those areas whose populations are socioeconomically disadvantaged, it is well suited for the purposes described by SB 535 (Cal/EPA 2017).

Assembly Bill 617

AB 617 established the Community Air Protection Program (CAPP), which requires new community-focused and community-driven action to reduce air pollution and improve public health in communities that experience disproportionate burdens from exposure to air pollutants. Communities identified for monitoring include Portside Environmental Justice Neighborhoods of Barrio Logan as well as portions of National City, Sherman Heights, and Logan Heights. The SDAPCD will implement the CAPP in San Diego County, which will eventually lead to additional pollution monitoring and additional requirements through the following: accelerated installation of pollution controls on industrial sources like oil refineries, cement plants, and glass manufacturers; expanded air quality monitoring within communities; increased penalties for violations of emissions control limits; and greater transparency and improved public access to air quality and emissions data through enhanced online web tools (SDAPCD 2018). The AB 617 Steering Committee includes local stakeholders, technical and scientific experts, and members of local industry. In December 2019,

CARB selected the Portside Community[8] for a Community Emissions Reduction Program (or CERP). The purpose of the CERP is to focus and accelerate new actions that go beyond existing state and regional programs to provide direct reductions in air pollution emissions and exposure within Portside communities. The CERP will be presented to the in two phases. Phase I includes actions that have been fully developed and supported by all jurisdictions or organizations which have an implementation role. The Phase I Draft CERP was released in September 2020. Phase II will include strategies that need further development and are expected to be presented to the SDAPCD Board in May of 2021 (SDAPCD 2021b).

4.2.3.4 Regional

San Diego Unified Port District

The PMP is the governing land use document for physical development within the District; however, there are also other District programs that apply to air quality. The District developed the Green Port Program to support the goals of the Green Port Policy, which was adopted in 2008. The Green Port Program supports resource conservation, waste reduction, and pollution prevention.

In June 2019, the Board of Port Commissioners adopted Resolution No. 2019-084, which authorizes staff to update the District's 2007 Clean Air Program to align with the AB 617 Program, as well as other local and state initiatives that are designed to improve air quality. The resolution also directs staff to develop district-related plans, projects, and strategies to improve air quality in advance of project funding and to collaborate with partner agencies, tenants, and stakeholders to improve regional air quality. The Maritime Clean Air Strategy (MCAS) identifies options for reducing air pollutants and improve air quality in around the working waterfront/portside communities through an assessment of applicable technologies, fuel sources, and strategies focused on mobile and stationary emission sources (District 2021). The Revised Draft MCAS was released for public review in August 2021 and will be presented to the board later in 2021.

San Diego Air Pollution Control District

Local air pollution control districts have the primary responsibility for the development and implementation of rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations. SDAPCD is the local agency responsible for the administration and enforcement of air quality regulations in San Diego County.

Regional Air Quality Strategy and State Implementation Plan

CARB, SDAPCD, and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego Regional Air Quality Strategy (RAQS) outlines SDAPCD's plans and control measures designed to attain and maintain the state standards, while San Diego's portions of the SIP are designed to attain and maintain federal standards. The RAQS was initially adopted in 1991 and is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, 2004, 2009, and most recently in December 2016 (SDAPCD 2018). The RAQS does not

[8] The Portside Community includes the neighborhoods of Barrio Logan, Logan Heights, and Sherman Heights in the City of San Diego, and West National City within National City.

currently address the state air quality standards for PM10 or PM2.5. SDAPCD has also developed the air basin's input to the SIP, which is required under the federal CAA for areas that are out of attainment of air quality standards. The most recent federal plan (or SIP) is the 2020 Plan for Attaining the National Ozone Standards. Both the RAQS and SIP demonstrate the effectiveness of CARB measures (mainly for mobile sources) and SDAPCD's plans and control measures (mainly for stationary and area-wide sources) for attaining the O_3 NAAQS (SDAPCD 2020a). In addition, the *Measures to Reduce Particulate Matter in San Diego County* report (SDAPCD 2005) proposes measures to reduce PM emissions and recommends measures for further detailed evaluation and, if appropriate, future rule development (or non-regulatory development, if applicable), adoption, and implementation in San Diego County, in order to attain PM CAAQS (SDAPCD 2005).

CARB recently adopted the *2016 State Strategy for the State Implementation Plan* (2016 SIP Update). This strategy describes proposed state measures to achieve the reductions necessary from the mobile sector and consumer products to meet O_3 and PM2.5 NAAQS over the next 15 years. The 2016 SIP Update will incorporate regional SIPs (to be developed) as well as the most recent Scoping Plan Update (see Section 4.6, *Greenhouse Gas Emissions and Climate Change*) and other statewide plans. CARB notes that while existing programs have achieved tremendous success in reducing NO_X emissions, further reductions are required.

SDAPCD Rules and Regulations

SDAPCD is responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws. The proposed project may be subject to the following SDAPCD rules, and others, during construction.

- **Regulation 2, Rule 20.2—New Source Review Non-Major Stationary Sources:** establishes Air Quality Impact Analysis (AQIA) Trigger Levels, which set emission limits for non-major new or modified stationary sources.
- **Regulation 2, Rule 20.3—New Source Review Major Stationary Sources and Prevention of Significant Deterioration Stationary Sources:** establishes AQIA Trigger Levels, which set emission limits for major new or modified stationary sources or Prevention of Significant Deterioration stationary sources. Major sources are defined in Regulation 8 as sources that emit 100 tons per year of PM10, SO_X, CO, and lead; and 50 tons per year of NO_X and VOC in federal ozone nonattainment areas.
- **Rule 50—Visible Emissions:** establishes limits for the opacity of emissions within the SDAPCD. The proposed project is subject to Rule 50(d)(1) and (6) and should not exceed the visible emission limitation.
- **Rule 51—Nuisance:** prohibits emissions that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; endanger the comfort, repose, health, or safety of any such persons or the public; or cause injury or damage to business or property.
- **Rule 52—Particulate Matter:** establishes limits for the discharge of any particulate matter from nonstationary sources.
- **Rule 54—Dust and Fumes:** establishes limits for the amount of dust or fume discharged into the atmosphere in any 1 hour.
- **Rule 55—Fugitive Dust Control:** sets restrictions on visible fugitive dust from construction and demolition projects. This includes use of track-out grates or gravel beds at each egress

point, wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and for outbound transport trucks: using secured tarps or cargo covering, watering, or treating of transported material.

- **Rule 67—Architectural Coatings:** establishes limits to the VOC content for coatings applied within the SDAPCD.
- **Rule 67.7—Cutback and Emulsified Asphalts:** establishes general provisions and limits to the VOC content for asphalt materials applied within the SDAPCD.
- **Rule 69.2—Industrial and Commercial Boilers, Process Heaters and Steam Generators:** establishes emissions testing and standards for boilers with a heat input rating of 5 million British thermal units (BTU) per hour or more.
- **Regulation 8, Rules 1200–1210:** establishes rules and procedures governing new, relocated, or modified emission units that may increase emissions of one or more TAC. While the project is not necessarily subject to the requirements of this regulation, the risk assessment guidelines and procedures published as part of this regulation are used in the health risk assessment herein.

4.2.4 Project Impact Analysis

4.2.4.1 Methodology

Air quality impacts associated with construction and operation of the various project components were assessed and quantified using industry standard and accepted software tools, techniques, and emission factors. A summary of the methodology is provided below. A full list of assumptions and emission calculations can be found in Appendix F. The methodology used to estimate air quality emissions discussed below is the same that was used to estimate GHG emissions, as described in Section 4.6.

Construction

Construction of the proposed project would generate emissions of VOC, NO_X, CO, SO_X, PM10, and PM2.5 that could result in short-term impacts on ambient air quality in the study area. Sources of construction emissions would be equipment exhaust, including cranes, harbor craft, barges; employee, delivery, and haul truck vehicle exhaust; fugitive off-gassing from architectural coatings; and fugitive dust from earth movement. Emissions were estimated using a combination of emission factors and methodologies published and recommended by CARB and other agencies, including the California Emissions Estimator Model (CalEEMod), version 2016.3.2, CARB's EMFAC2017 model, EPA's AP-42 *Compilation of Air Pollutant Emission Factors*, and CARB's *Harborcraft Emission Inventory Methodology* (CARB 2010).

Construction of the various components would occur in two phases over an extended period and would depend on factors such as local economic conditions, market demand, and other financing considerations. The exact construction schedule for all various project components is not known at the time of analysis. However, a set of assumptions was developed with the District in order to evaluate reasonably foreseeable construction activities of the various project components and

whether or not those project components, both individually and when combined with all other components, would result in air quality impacts.

Construction data for the proposed project (e.g., schedule, equipment types and numbers, and truck volumes) is based on a combination of information provided by the project proponent, information gathered from similar recent District projects, and modeling defaults. The project components would be constructed in different phases. For purposes of analysis, construction of all components with the exception of Phase 2 of the GB Capital Component were assumed to commence in 2020 and overlap on a given day. The peak day for air quality assumes construction of each component (Balanced Plan, GB Capital – Phase 1, Pasha, Bayshore Bikeway, City Program – Development) and all phases within each component (e.g., demolition, grading, building construction, coatings of Balanced Plan) would overlap during the 2020–2022 timeframe.

Phase 2 of the GB Capital Component is anticipated to be constructed at a later date, dependent on market conditions. For purposes of the analysis, it was assumed that construction of Phase 2 of the GB Capital Component would begin in 2023 and would be completed by 2025. Phase 2 construction would not overlap with any other construction components but is assumed to overlap with operation of those components constructed in the 2020–2022 timeframe.

Note that the construction analysis is based on a construction schedule that begins in 2020 and lasts through 2025. In the likely event that construction of the various components occurs at a date later than assumed herein, emissions are likely to be lower than the emissions presented in the analysis below due to the fact that emissions on per unit basis (e.g., per horsepower hour, per vehicle mile traveled) decrease over time, particularly due to regulations that reduce emissions and improve fuel economy over time.

The methods used to estimate criteria pollutants emissions by source are described below. Refer to Appendix F for more information on the construction schedule, equipment and vehicles inventories, modeling methods, and modeling outputs.

Off-Road Equipment: Heavy duty construction equipment (e.g., cranes, forklifts, loaders) would be used for a variety of activities, including demolition of structures, walkways, and asphalt; construction of buildings and infrastructure; and grading and laying foundations. Specific equipment used during each phase of construction as well as horsepower and load factors were obtained from the CalEEMod (version 2016.3.2) program and were verified by the District. Emissions are based on default emission factors from CalEEMod and activity hours. It was assumed that all off-road equipment would be diesel-powered. Offroad equipment assumptions and general construction scheduling details for each project component are summarized in Table 4.2-6.

Table 4.2-6. Offroad and Marine Equipment Assumptions by Project Element

Project Element	Offroad Equipment	Marine Equipment	Schedule
Balanced Plan	Excavators, Dozers, Loaders, Scrapers, Tractors/Loaders/Backhoes, Graders, Pavers, Rollers, Bore/Drill Rigs, Cranes, Air Compressors, Concrete Industrial Saws, Generators, Forklifts, Paving Equipment, Welders, Aerial Lifts, Rollers, Pavers	Tugs, Material Barge	Year 1
GB Capital	Excavators, Dozers, Loaders, Scrapers, Tractors/Loaders/Backhoes, Graders, Pavers,	Tugs, Derek Barge, Crane, Jet Pump,	Year 1–Year 6

Project Element	Offroad Equipment	Marine Equipment	Schedule
	Rollers, Bore/Drill Rigs, Cranes, Air Compressors, Concrete Industrial Saws, Generators, Forklifts, Paving Equipment, Welders, Aerial Lifts, Rollers, Pavers	Deck Barge, Push Boat, Skiffs	
Pasha Rail	Excavators, Dozers, Loaders, Scrapers, Tractors/Loaders/Backhoes, Graders, Pavers, Rollers, Bore/Drill Rigs, Cranes, Forklifts, Air Compressors	NA	Year 1
Bayshore Bikeway	Concrete/Industrial Saws, Dozers, Tractors/Loaders/Backhoes, Graders, Scrapers, Cement and Mortar Mixers, Pavers, Rollers, Paving Equipment, Air Compressors	NA	Year 1
City Program	Excavators, Dozers, Loaders, Scrapers, Graders, Pavers, Rollers, Bore/Drill Rigs, Cranes, Tractors/Loaders/Backhoes, Pumps, Forklifts, Air Compressors	NA	Years 1 and 2

Source: Appendix F.

On-Road Vehicles: On-road vehicles (e.g., pickup trucks, flatbed trucks, passenger cars) would be used for material and equipment hauling, crew and material movement, employee commuting, and material disposal. Combustion exhaust and fugitive dust (PM10 and PM2.5) from vehicle travel were estimated using a combination of emission factors and methodologies from CalEEMod, CARB's EMFAC 2017 model, EPA's AP-42 *Compilations of Air Pollutant Emission Factors* (EPA 2011), and CARB's *Miscellaneous Process Methodology 7.9 Entrained Road Travel, Paved Road Dust* (CARB 2018a) using project-specific activity data. Emission factors for heavy-duty material, haul, and disposal trucks are based on aggregated-speed emission rates for the T7 Single vehicle category for each construction year (2022–2025) using CalEEMod default one-way travel distances from CalEEMod for material hauling (20 miles) and vendor trips (7.3 miles). Total truck trips assumed for each project element were approved by the District and are outlined in Table 4.2-7.

Emissions associated with the construction worker commute travel were estimated based on a weighted average of light duty auto (LDA), light duty truck 1 (LDT1), and light duty truck 2 (LDT2) emission rates from EMFAC, similar to the vehicle split used in CalEEMod (e.g., LDA = 50%, LDT1 = 25%, LDT2 = 25%) for each construction year (2022–2025). The total number of workers per project element was obtained using CalEEMod defaults, and the CalEEMod Urban San Diego Home-Work default trip length of 10.8 miles per trip was used assuming two trips per employee.

The analysis includes CARB's criteria pollutant adjustment factors for gasoline light-duty vehicles to account for the SAFE Vehicle Rule (CARB 2019).

Earth Movement and Demolition: Fugitive PM10 and PM2.5 dust emissions from earth and material movement (i.e., excavation, demolition) were quantified using emission factors for truck loading, dozing, and demolition from CalEEMod, as well as total excavation and demolition material approved by the District. Total excavated material expected during the construction period is outlined in Table 4.2-7. Excavated material is expected to be over 50,000 cubic yards, and demolition debris is expected to be over 25,000 cubic yards. The excavated material, as well as demolition debris, would be disposed of at the Otay Landfill in the City of Chula Vista, the Miramar Landfill in the City of San Diego, the Sycamore Landfill in the City of Santee, or another approved upland disposal site. Emissions associated with truck travel to haul demolition debris and excavated

material were estimated using the most conservative distance of the disposal centers, which is assumed to be the Sycamore Landfill at 20.0 miles per one-way trip. Total material volumes from demolition and excavation for each project component are outlined in Table 4.2-7.

Table 4.2-7. Material Quantities (Demolition and Excavation) and Vehicle Trips by Project Component

Project Element	Demolition (CY)	Excavated Material (CY)	Maximum Workers per day	Total Trucks
Balanced Plan	6,400	16,000	35	5,412
GB Capital	8,130	15,250	96	23,910
Pasha Rail	6,900	7,900	9	1,050
Bayshore Bikeway	1,320	0	8	134
City Program	576	7,207	63	1,779
Total	**23,326**	**46,357**	**211**	**32,284**

CY = cubic yards

Architectural Coatings: Fugitive VOC emissions associated with architectural coatings were calculated using emissions factors and calculation methodologies contained in the CalEEMod User's Guide. The architectural coatings emissions estimates are based on construction of new structures and paving for new roadway configurations. Table 4.2-8 outlines the project components and related structures that would require architectural coatings. Note that the emission calculations for roadway closures and parking area are based on the CalEEMod default assumption that 6% of parking areas is painted (e.g., for striping). Emissions are based on the SDAPCD VOC content limit of 150 grams per liter for both interior and exterior coatings.

Table 4.2-8. Total Architectural Coatings by Project Component

Project Component	Elements	Total Square Footage
Asphalt Surfaces		
Balanced Plan – Road Improvements	Roadway closures and realignments, and park area	220,589
GB Capital Component	Public access corridors, parking areas (including the RV park), roadways, pedestrian path, bicycle path, maintenance yard, RV park roadways	1,135,528
Bayshore Bikeway Component	Bikeway	93,000
City Program – Development Component	Roadway closures and narrowing	14,000
Pasha Road Closures Component	Roadway closures	264,410
Total Asphalt Surface Area	--	*1,727,527 total asphalt area, and 25,547 painted*
Buildings		
GB Capital Component – Phase 1	Laundry facilities, support facilities, dry boat storage, modular cabins,	179,912

Project Component	Elements	Total Square Footage
	administration/recreation building, restrooms, maintenance building	
GB Capital Component – Phase 2	Hotels, and mixed-use development with retail space	688,776
City Program – Development Component	Hotel, restaurant space, and retail space.	245,300
Total New Building Area	--	*1,113,988*
Total Painted Area		1,539,778

Waterside Construction: The in-water components of project construction were assumed to require operation of a crane barge, material barges, tugboats, push boats, and skiffs. The crane barge would house the crane around the project site, and the material barges would be required to move equipment and materials around the project site and to transport Granger Hall to Pepper Park. Push boats and tugboats would be required to move the crane and material barges around the project site and to transport the Granger Hall barge. Skiffs are assumed to be required to transport workers around the project site and to push the docks and smaller materials within the marina.

Assumptions used to model in-water construction emissions were obtained from vessel characteristics used for similar, representative projects. Assumptions for vessel specifications, including horsepower and model year were obtained from the Fifth Avenue Landing Project and Port Master Plan Amendment Draft EIR (District 2017), which included similar in-water construction work. Emission factors were corrected for use of ultra-low-sulfur-diesel and deterioration to compensate for vessel engine wear. Based on guidance from CARB, deterioration is capped at 12,000 hours of operation, given that diesel engines are typically rebuilt after 12,000 hours of use As a result, once an engine's cumulative hours equal 12,000, the deteriorated (or in-use) emission factor is assumed to be constant for the duration of that vessel's life. Marine equipment summary by component is presented in Table 4.2-6. Vessel assumptions as well as equipment and scheduling information for all of the waterside components are provided in Appendix F.

Operation

Operation of the proposed GB Capital Component land uses, including the RV park, modular cabins, dry boat storage, hotels, expanded marina, Balanced Plan's expansion of Pepper Park, and the City Program – Development Component's retail, hotel, and other general tourist/visitor-serving commercial development, would generate emissions of VOC, NO_X, CO, SO_X, PM10, and PM2.5 that could result in long-term impacts on ambient air quality in the study area. Operational emissions would result from motor vehicle travel, onsite combustion of natural gas for space and water heating, consumer products (cleaning supplies, kitchen aerosols, cosmetics, and toiletries), and the re-application of architectural coatings. In addition, new waterside uses associated with the GB Capital Component, including up to 20 additional boats mooring in Sweetwater Channel, up to 50 additional boats at the new floating dock, and up to 25 additional smaller boats at the new dock and gangways, would result in additional recreational boating opportunities.

Mass daily emissions were estimated using a combination of emission methods and emission factors from published best available documentation. Emissions from landside activities are based on the methods, assumptions, and data sources within CalEEMod, using emission factors for typical offroad equipment, EPA's AP-42 *Compilation of Air Pollutant Emission Factors*, CARB's EMFAC2017 model, as well as vehicle trips and vehicle miles traveled (VMT) from the transportation analysis (Appendix M).

For recreational boating activity during operations, CARB's OFFROAD 2007 model was used to estimate boating emissions associated with gasoline and diesel outboard, inboard, stern drive, and inboard jet engines assuming that all recreational vessels used at the new marina would be between 50 and 500 hp. Both exhaust and evaporative emissions were calculated for 2025 and 2040. Because 2040 was the maximum year in the OFFROAD model, 2040 was assumed to be a surrogate for 2050. Estimated daily emissions associated with county-wide recreational vessel activity were divided by the total recreational vessel population in OFFROAD and multiplied by the number of available berthing locations and 365 days a year, under the assumption that one boat would be active per berthing location per day, and boats would be active 365 days per year. The number of new berthing locations is assumed to be up to 95, based on the sum of 20 boat capacity associated with the moorings in Sweetwater Channel, 50 boat capacity at the new floating dock in the marina, and 25 boat capacity at the gangway. Additional information on these proposed waterside improvements is provided in Section 3.4.2.1 of Chapter 3, *Project Description,* and details regarding estimating emissions for these waterside operations is provided in Appendix F.

For purposes of analysis, it was assumed that all components except for Phase 2 of the GB Capital Component would be fully built and operational by 2022, and that all components, including Phase 2 of the GB Capital Component, would be fully built and operational by 2025. As stated above, please note that in the likely event that construction of the various components occurs at a date later than assumed herein, emissions are likely to be lower than the emissions presented in the analysis below due to the fact that emissions on per unit basis (e.g., per horsepower hour, per vehicle mile traveled) decrease over time, particularly due to regulations that reduce emissions and improve fuel economy over time.

The Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component would result in little to no operational changes, and, therefore, operational changes associated with these components are discussed qualitatively.

4.2.4.2 Thresholds of Significance

The following significance criteria are based on Appendix G of the State CEQA Guidelines and provide the basis for determining significance of impacts associated with air quality resulting from the proposed project. The determination of whether an air quality impact would be significant is based on the thresholds described below and the professional judgment of the District as Lead Agency based on the evidence in the administrative record.

Impacts are considered significant if the proposed project would result in any of the following.

1. Conflict with or obstruct implementation of the applicable air quality plan;
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;
3. Expose sensitive receptors to substantial pollutant concentrations; and

4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the State CEQA Guidelines further indicates the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the significance determinations.

Supplemental Thresholds

The following section summarizes the significance thresholds established by the County of San Diego; presents substantial evidence regarding the basis upon which they were developed; and describes how they are used to determine whether project construction and operational emissions would result in a significant impact within the context of (1) interfering with or impeding attainment of CAAQS and NAAQS or (2) causing or contributing to increased risks to human health.

Consistency with Applicable Air Quality Plan

SDAPCD is required, pursuant to the NAAQS and CAAQS, to reduce emissions of criteria pollutants for which the county and air basin are in nonattainment. The most recent air quality attainment plans are the 2020 O_3 attainment plan, adopted in 2020 and designed to attain the NAAQS for O_3, and the 2016 RAQS, adopted in 2016 and designed to attain the CAAQS for O_3. The RAQS and SIP project future emissions and determine the strategies necessary for the reduction of stationary source emissions through regulatory controls. The RAQS and SIP rely on the cumulative emission projections and control measures outlined in the SIP. CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the region's cities and by the County of San Diego.

Project or Plan consistency with the RAQS and SIP can be determined by considering if the reasonably foreseeable future development that would occur with the proposed project's implementation would be consistent with the growth anticipated by SANDAG's growth projections, which were used in the formulation of the RAQS and SIP. If the growth was included, then the project would be consistent with the RAQS and SIP. If the growth was not included in SANDAG's growth projections (i.e., greater than anticipated in the projections), the project would not be considered consistent with the RAQS and SIP, and would potentially result in a significant impact on air quality.

Moreover, if the project is consistent with the overarching goals (i.e., to reduce emissions and attain NAAQS and CAAQS) and strategies (i.e., measures implemented to reduce emissions), then the project would be consistent with the RAQS and SIP.

Regional Pollutant Thresholds and Health Risks

Regional Thresholds for SDAB Attainment of State and Federal Ambient Air Quality Standards

As previously indicated, the State CEQA Guidelines state that the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the significance determination of whether a project would violate or impede attainment of air quality standards. Attainment status for each pollutant is assigned for the entire air basin. In San Diego, the SDAB is defined as "all of San Diego County" (see 17 California Code of Regulations [CCR] 60110). Therefore, the current attainment status for the entire San Diego region, which includes

nonattainment status for ozone NAAQS and ozone CAAQS, PM10 CAAQS, and PM2.5 CAAQS, applies to the entire county.

Neither the City nor the District has developed CEQA thresholds of significance for air quality and health risk.[9] Although SDAPCD has not developed specific thresholds of significance to evaluate construction and operational impacts within CEQA documents, SDAPCD's Regulation II, Rules 20.2 and 20.3 (new source review for non-major and major stationary sources, respectively), outline AQIA Trigger Levels for criteria pollutants for new or modified sources. Based on SDAPCD's AQIA Trigger Levels, as well as EPA rulemaking and CEQA thresholds adopted by the South Coast Air Quality Management District (SCAQMD), the County of San Diego has established screening-level thresholds (SLTs) to assist lead agencies in determining the significance of project-level air quality impacts within the county. Although SDAPCD does not have VOC or PM2.5 AQIA Trigger Levels, the County has adopted a PM2.5 SLT based on EPA's "Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards" published on September 8, 2005, which is also consistent with SCAQMD's Air Quality Significance Thresholds (SCAQMD 2019), and a VOC SLT based on the threshold of significance for VOCs from the SCAQMD for the Coachella Valley (SCAQMD 1993). Emissions in excess of thresholds shown in Table 4.2-9 would be expected to have a significant impact on air quality because an exceedance of the thresholds is anticipated to contribute to CAAQS and NAAQS violations in the county under existing and cumulative conditions.

The county's SLTs are based on SDAPCD AQIA Trigger Levels, and these AQIA Trigger Levels are based on emissions levels identified under the New Source Review (NSR) program, which is a permitting program established by Congress as part of the CAA Amendments of 1990 to ensure that air quality is not significantly degraded by new or modified sources of emissions. The NSR program requires that stationary sources receive permits before construction begins and/or the use of equipment. By permitting large stationary sources, the NSR program ensures that new emissions would not slow regional progress toward attaining the NAAQS. SDAPCD implements the NSR program through Rules 20.2 and 20.3, and has concluded that the stationary pollutants described under the NSR program are equally significant as those pollutants generated with land use projects. SDAPCD's Trigger Levels were set as the total emission thresholds associated with the NSR program to help attain and maintain the NAAQS from new and modified non-major stationary sources.[10] SDAPCD's Trigger Levels take into account the region's attainment status, emission profile, inventory, and projections, and represent levels above which project-generated emissions could affect SDAPCD's and SANDAG's commitment to attain the state and federal standards in the region. Consistent with Section 15064.7(c) of the State CEQA Guidelines,[11] the evidence in support of the air quality thresholds shown in Table 4.2-9 is deemed appropriate for their use in this analysis and in this location within the greater SDAB.

[9] The District is currently in the process of drafting CEQA thresholds of significance for all resources, including air quality. Until these thresholds are adopted, the District may continue to rely on established regional thresholds, which are based on substantial evidence summarized herein.

[10] San Diego Air Pollution Control District, Rule 20.2, Table 20.2-1, hereby incorporated by reference (SDAPCD 2020b): f

[11] "When adopting (or using) thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

Table 4.2-9. Air Quality Thresholds for Criteria Pollutants

	Emission Rate		
Air Contaminant	(pounds per hour)	(pounds per day)[1]	(tons per year)
Respirable Particulate Matter (PM10)	--	100	15
Fine Particulate Matter (PM2.5)[2]	--	55	10
Nitrogen Oxides (NO_X)	25	250	40
Sulfur Oxides (SO_X)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead (Pb)[3]	--	3.2	0.6
Volatile Organic Compounds (VOC)[4]	--	75	13.7[5]

Source: SDAPCD Regulation II, Rule 20.2, County of San Diego 2007.
[1] According to the County of San Diego, the daily thresholds are most appropriate when assessing impacts from standard construction and operational emissions. Therefore, daily thresholds are used to evaluate project significance, while hourly and annual thresholds are provided for informational purposes only.
[2] Based on EPA's "Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards" published September 8, 2005, and also SCAQMD's Air Quality Significance Thresholds (SCAQMD 2019). Rule 20.2 was amended in 2018 to include PM2.5 AQIA of 67 pounds per day. However, as 55 pounds per day is lower (and more restrictive), 55 pounds per day from recommended by the County is used here.
[3] Lead and lead compounds.
[4] County SLTs for VOCs were originally based on the threshold of significance for VOCs from SCAQMD for the Coachella Valley. The terms VOC and ROG are used interchangeably, although VOC is used in this document because the City and County use the term VOC.
[5] 13.7 tons per year threshold is based on 75 pounds per day multiplied by 365 days per year and divided by 2,000 pounds per ton.

Health-Based Thresholds for Project-Generated Pollutants of Human Health Concern

In December 2018, the California Supreme Court issued its decision in *Sierra Club v. County of Fresno* (226 Cal.App.4th 704) (hereafter referred to as the Friant Ranch Decision). The case reviewed the long-term, regional air quality analysis contained in the EIR for the proposed Friant Ranch development. The Friant Ranch project is a 942-acre master-plan development in unincorporated Fresno County within the San Joaquin Valley Air Basin, an air basin currently in nonattainment for the ozone and PM2.5 NAAQS and CAAQS. The Court found that the air quality analysis was inadequate because it failed to provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time." The Court's decision clarifies that environmental documents must connect a project's air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

As discussed above in Section 4.2.2.3, *Pollutants of Concern*, all criteria pollutants that would be generated by the proposed project are associated with some form of health risk (e.g., asthma). Criteria pollutants can be classified as either regional or localized pollutants. Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. Ozone and NO_2 are considered regional criteria pollutants, whereas CO, SO_2, and Pb are localized pollutants. PM can be both a local and a regional pollutant, depending on its composition. As discussed above, the primary criteria pollutants of concern in the study area are ozone (including VOC and NO_X) and PM (including DPM).

Regional Project-Generated Criteria Pollutants (Ozone Precursors and Regional PM)

Adverse health effects induced by regional criteria pollutant emissions generated by the project (ozone precursors and PM) are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). For these reasons, ozone precursors (VOC and NO_X) contribute to the formation of ground-borne ozone on a regional scale, where emissions of VOC and NO_X generated in one area may not equate to a specific ozone concentration in that same area. Similarly, some types of particulate pollutant may be transported over long-distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased ozone or regional PM concentrations are the product of emissions generated by numerous sources throughout a region, as opposed to a single individual project.

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. There are models capable of quantifying ozone and secondary PM formation and associated health effects, and these tools were developed to support regional planning and policy analysis and have limited sensitivity to small changes in criteria pollutant concentrations induced by individual projects. Therefore, translating project-generated criteria pollutants to the locations where specific health effects could occur or estimating the resultant number of additional days of nonattainment cannot be performed with a high degree of accuracy for relatively small projects (relative to the regional air basin).

Technical limitations of existing models to correlate project-level regional emissions to specific health consequences are recognized by air quality management districts throughout the state, including the San Joaquin Valley Air Pollution Control District (SJVAPCD) and SCAQMD, who provided amici curiae briefs for the Friant Ranch legal proceedings. In its brief, SJVAPCD (2015) acknowledges that while health risk assessments for localized air toxics, such as DPM, are commonly prepared, "it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task." The air district further notes that "emissions solely from the Friant Ranch project (which equate to less than one-tenth of one percent of the total NO_X and VOC in the Valley) is not likely to yield valid information," and that any such information should not be "accurate when applied at the local level." SCAQMD (2015) presents similar information in their brief, stating that "it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels."[12]

The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. While recognizing that air quality is a cumulative problem, air districts typically consider projects that generate criteria pollutant and ozone precursor emissions below these thresholds to be minor in nature and would not adversely affect air quality such that the NAAQS or CAAQS would be exceeded. Emissions generated by the project could increase photochemical reactions and the formation of tropospheric ozone and secondary PM, which at certain concentrations could lead to increased incidence of specific health consequences. Although these health effects are associated with ozone and particulate pollution, the effects are a result of cumulative and regional emissions. As such, a project's incremental

[12] For example, SCAQMD's analysis of their 2012 Air Quality Attainment Plan showed that modeled NO_X and VOC reductions of 432 and 187 tons per day, respectively, only reduced ozone levels by 9 ppb. Analysis of SCAQMD's Rule 1315 showed that emissions of NO_X and VOC of 6,620 and 89,180 pounds per day, respectively, contributed to 20 premature deaths per year and 89,947 school absences ( ).

contribution cannot be traced to specific health outcomes on a regional scale, and a quantitative correlation of project-generated regional criteria pollutant emissions to specific human health impacts is not included in this analysis.

The thresholds presented in Table 4.2-9 consider existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. Accordingly, the proposed project would expose receptors to substantial regional pollution if any of the thresholds summarized in Table 4.2-9 are exceeded.

Localized Project-Generated Criteria Pollutants (CO) and Air Toxics (DPM) Thresholds and Health Risks

Localized pollutants generated by a project are deposited and potentially affect population near the emissions source. Because these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts on adjacent or nearby sensitive receptors. Models and thresholds are readily available to quantify these potential health effects associated with CO and DPM and evaluate their significance (CAPCOA 2009, OEHHA 2015, CARB 2000). Locally adopted thresholds and analysis procedures for the localized pollutants of concern associated with the proposed project (DPM, CO, and naturally occurring asbestos) are identified below.

Localized Carbon Monoxide Concentrations

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below state and federal CO standards. The applicable local emission concentration standards for CO are as follows:

- CAAQS and NAAQS 1-hour CO standards of 20 and 35 ppm, respectively
- CAAQS and NAAQS 8-hour CO standard of 9.0 and 9 ppm, respectively

Ambient CO levels in the entire San Diego region are below the NAAQS and CAAQS and the region is in attainment. Regardless, as in most urban areas, high short-term concentrations of CO, known as *hotspots*, can occur in San Diego County. Hotspots typically occur in areas of high motor vehicle use, such as in parking lots, at congested intersections, and along highways. Projects that do not generate CO concentrations in excess of the health-based NAAQS and CAAQS would not contribute a significant level of CO such that localized air quality and human health would be substantially degraded.

Localized Diesel Particulate Matter Concentrations

DPM is a form of localized PM (see above for a detailed discussion) that is generated by diesel equipment and vehicle exhaust. DPM has been identified as a TAC by CARB and is particularly concerning because long-term exposure can lead to cancer, birth defects, and damage to the brain and nervous system. The county has adopted incremental cancer and hazard thresholds to evaluate receptor exposure to DPM emissions, which are adapted from SDAPCD Regulation XII, Rule 1200 (SDAPCD 2020b). Projects that would result in exposure to TACs resulting in a maximum

incremental cancer risk (MICR) greater than 1 in 1 million without application of Toxics BACT,[13] MICR greater than 10 in 1 million with application of Toxics BACT, or a chronic and acute non-cancer health hazard index greater than 1.0 would be deemed as having a significant impact related to health risks from DPM exposure. Because various Toxics BACTs are in place at the Port—including CARB rules on vessels, shore power, and drayage trucks—the MICR of 10 in 1 million is utilized herein.

Asbestos-Containing Materials

There are no quantitative thresholds related to receptor exposure to asbestos. However, SDAPCD Rule 40 requires the demolition or renovation of asbestos-containing building materials to comply with the limitations of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations as listed in the Code of Federal Regulations. (SDAPCD 2020b). See the discussion of asbestos in Section 4.7, *Hazards and Hazardous Materials*.

Thresholds for Cumulative Impacts

Potential cumulative air quality impacts would result when cumulative projects' pollutant emissions would combine to degrade air quality conditions to below acceptable levels. This could occur on a local level, such as through increases in vehicle emissions at congested intersections, or at sensitive receptor locations due to concurrent construction activities; at a regional level, such as the potential impact of multiple past, present, and reasonably foreseeable projects on O_3 within the SDAB; or globally, such as the potential impact of GHG emissions on global climate change.

The County of San Diego thresholds for cumulative air quality impacts (see below), set forth by SDAPCD and SCAQMD, are used to determine if a project's contribution is cumulatively considerable.

Cumulatively considerable net increases during the construction phase would typically happen if two or more projects near each other are simultaneously constructed. The following thresholds are used to determine the cumulatively considerable net increase in emissions during the construction phase.

- A project that has a significant direct impact on air quality with regard to emissions of PM10, PM2.5, NO_X, and/or VOCs (i.e., an exceedance of values indicated in Table 4.2-9) would also have a significant cumulatively considerable net increase.
- In the event that direct impacts from the proposed project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions of concern from the proposed project, in combination with the emissions of concern from other reasonably foreseeable future projects within the proximity relevant to the pollutants of concern, are in excess of direct air quality impact thresholds.

The following thresholds are used to determine the cumulatively considerable net increase in emissions during the operation phase:

- A project that does not conform to the RAQS and/or has a significant direct impact on air quality with regard to operational emissions of PM10, PM2.5, NO_X, and/or VOCs (i.e., an exceedance of

[13] Best Available Control Technology (BACT) is the level of air contaminant emission control or reduction required by state law and District rules for new, modified, relocated, and replacement emission sources. Examples of Toxics BACT include diesel particulate filters, catalytic converters, and selective catalytic reduction technology.

SLT values indicated in Table 4.2-9) would also have a significant cumulatively considerable net increase.

- Projects that cause road intersections to operate with total (proposed project and surrounding project) peak-hour trips in excess of 3,000 trips and create a CO hotspot would create a cumulatively considerable net increase of CO.
- A project would result in a significant direct impact on health risk by resulting in incremental risk greater than 10 in 1 million for cancer or hazard index greater than 1.0 for chronic and acute non-cancer health would also have a significant cumulatively considerable net increase in health risk.

4.2.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would conflict with or obstruct implementation of an applicable air quality plan.

Impact Discussion

As discussed in detail in Section 4.9, *Land Use and Planning*, the proposed project encompasses land that is under the jurisdiction of both the District and the City. District land is within the PMP's National City Bayfront Planning District (Planning District 5) and lies within several subareas, including Lumber Yards (Subarea 55), Sweetwater (Subarea 57), Launching Ramp (Subarea 58), and Marina (Subarea 59). The proposed project encompasses 77 acres, with approximately 60 acres falling within the District's PMP jurisdiction and the remaining approximately 17 acres falling within the City's LCP. PMP land and water use designations within the project site include Marine Terminal, Marine-Related Industrial, Commercial Recreation, Recreational Boat Berthing, Park/Plaza, and Street uses. City LCP land uses include Tourist Commercial & Recreation, Tourist Commercial, Medium Manufacturing, Open Space, and bikeway uses.

As stated in Chapter 3, the proposed project would clearly delineate maritime (e.g., Marine Related Industrial or Marine Terminal land use designations) land use boundaries from potential recreational and commercial land use boundaries, increase public access and recreational opportunities, optimize maritime uses and efficiencies, and increase commercial opportunities through reconfiguration of roadways and consolidating parcels.

The proposed project includes portions under both the District's and City's jurisdictional boundaries. Construction and operation of the proposed project would require amendments to the District's PMP as well as the City's LCP, General Plan, Harbor District Specific Area Plan (HDSAP), and Land Use Code (LUC) that would include changes to jurisdictional boundaries; changes to subarea boundaries; and changes to land use, specific plan, and zone designations. These new uses and new designations were not previously considered in SANDAG's growth assumptions (note: as part of the project, approximately 13 acres that is currently designated Tourist Commercial in the City's HDSAP and is proposed to be removed from the City's HDSAP and added to the District's PMP with a Commercial Recreation designation, will not result in a substantial change in allowable uses on that acreage because the allowable uses under Tourist Commercial and Commercial Recreation are similar), as they represent changes to the PMP, LCP, and General Plan. Therefore, the proposed project would result in a change in land uses that would be inconsistent with the RAQS and applicable portions of the SIP, which would represent a significant impact (**Impact-AQ-1**). **MM-AQ-**

1 is required to ensure the administrative process to update SANDAG's growth projections is completed, thus informing the air quality strategies contained within the RAQS and SIP with the new redesignated land uses.

As detailed in Section 4.9, and in Table 4.9-3, the proposed project would be consistent with all goals, policies, and objectives of the PMP, General Plan, LCP, and other land use plans and policies that are applicable to the project site, including the Coastal Act. The proposed project aims to increase recreation and visitor-serving commercial space in a currently underutilized area in an effort to draw more visitors to the waterfront while maintaining the productivity of the maritime industrial and maritime uses. The plan and zoning amendments are needed to support implementation of the project objectives, and these plan and zoning amendments would create temporary inconsistencies with those plans and broader plans at the regional level (e.g., air quality plans) that rely on growth and land use projections. Therefore, while the proposed land use designations would be inconsistent with the land use designations of the governing land use document (i.e., the PMP), the proposed project includes a PMPA to bring proposed land use and water use designation changes into compliance and would be consistent with the overall goals and policies of these relevant plans.

Based on the above analysis, **MM-AQ-1** is required to ensure the administrative process to update SANDAG's growth projections is completed, thus informing the air quality strategies contained within the RAQS and SIP and ensuring these air quality plans adequately consider the redesignated uses at the project site. **MM-AQ-1** would ensure the proposed project is consistent with the RAQS and SIP. Thus, with implementation of **MM-AQ-1**, impacts associated with inconsistency with the RAQS and SIP would be reduced to a less-than-significant level.

Level of Significance Prior to Mitigation

Implementation of the proposed project would conflict with or obstruct implementation of an applicable air quality plan. Potentially significant impact(s) include:

Impact-AQ-1: New Land Use Designations Not Accounted for in the RAQS and SIP (All Project Components). The proposed project would amend the District's PMP, and the City's General Plan, LCP, HDSAP, LUC, and Bicycle Master Plan to account for the proposed land use and jurisdictional changes. As these land use changes were not known at the time the RAQS and SIP were last updated, this would result in a conflict with the applicable state and regional air quality plans because emissions associated with the proposed land uses could be greater than under existing land uses and these new emissions have not been accounted for in the current RAQS and SIP.

Mitigation Measures

For **Impact-AQ-1**:

> **MM-AQ-1: Update the RAQS and SIP with New Growth Projections (All Project Components).** Within 6 months from approval of the proposed project, the District and City shall provide SANDAG with revised employment growth forecasts that account for buildout of the proposed project. This includes the amendments to the District's PMP, and the City's General Plan, LCP, HDSAP, LUC, and Bicycle Master Plan to account for the proposed land use and jurisdictional changes. The District and the City shall coordinate with SANDAG and the SDAPCD to ensure the RAQS and SIP are updated as part of the next revision cycle to reflect the updated

growth and land use assumptions of the project as well as the PMP and the City's General Plan as a whole.

Level of Significance After Mitigation

With implementation of **MM-AQ-1**, the inconsistency with the current RAQS and SIP associated with the proposed land use designation changes would be rectified, and, therefore, the proposed project would be consistent with the RAQS and SIP. Therefore, after mitigation, **Impact-AQ-1** would be less than significant.

Threshold 2: Implementation of the proposed project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.

Impact Discussion

As a result of past and present projects, the SDAB is currently in nonattainment for O_3 under NAAQS and for O_3, PM10, and PM2.5 under CAAQS, and will likely be further impeded by reasonably foreseeable future projects (see Chapter 5, *Cumulative Impacts*). Construction and operation of the proposed project have the potential to result in cumulatively considerable net increases in O_3 precursors (VOC and NO_X), PM10, and PM2.5. The construction- and operations-related air quality impacts are discussed below.

Construction Emissions

An estimate of emissions associated with project construction of the various project components was calculated using the methods discussed above in Section 4.2.4.1, *Methodology*. An estimate of daily emissions (pounds per day) from construction of each project component prior to mitigation is presented in Tables 4.2-10 through 4.2-15. An estimate of the maximum daily overlap for all phases prior to mitigation by year is presented in Table 4.2-16.

As discussed below, maximum daily emissions associated with construction of the development activities associated with the Balanced Plan (e.g., transportation improvements, public access improvements, Pepper Park expansion), Phase 1 and Phase 2 of the GB Capital Component, and the City Program – Development Component would individually result in emissions that exceed thresholds, and concurrent emissions from all construction associated with the proposed project would exceed the threshold for VOC, NO_X, CO, PM10, and PM2.5 (**Impact-AQ-2**). The discussion herein includes an analysis of each project component by itself and analysis of all components assuming all construction occurs concurrently.

Individual Components

A discussion of the activities that contribute to the peak day for each individual component is provided below. A discussion of how all construction activities could potentially overlap and the potential worst-case emissions and related impacts is provided in the next section.

- As shown in Table 4.2-10, maximum daily construction activity from the development activities associated with the Balanced Plan is expected to exceed the NO_X threshold. This exceedance is primarily due to equipment usage (e.g., dozers, scrapers, cranes, graders, and scrapers), as well

as delivery and haul truck activity to haul materials and debris as well as marine vessels used to relocate Granger Hall (an optional feature of the proposed Pepper Park expansion).

- As shown in Table 4.2-11, maximum daily construction activity associated with Phase 1 of the GB Capital Component is expected to exceed the threshold for VOC, NO_X, and CO. The VOC exceedance is primarily due to architectural coatings (painting) activities to paint the modular cabins, marina buildings, RV park support facilities, and curbs and walkways. The NO_X and CO thresholds are exceeded due to construction equipment usage, marine vessels to install waterside pier, docks, and moorings, as well as delivery and haul trucks to deliver materials and remove debris. Note that the analysis conservatively assumes all waterside activities—including activities to install pier and dock pilings, place floating docks, and setting moorings—would occur concurrently.
- As shown in Table 4.2-12, maximum daily construction activity associated with Phase 2 of the GB Capital Component is expected to exceed the threshold for VOC due to architectural coatings (painting) of the hotel and retail uses.
- As shown in Table 4.2-13, maximum daily construction activity associated with the Pasha Rail Improvement Component and Pasha Road Closures Component are not expected to exceed the thresholds.
- As shown in Table 4.2-14, maximum daily construction activity associated with the Bayshore Bikeway Component is not expected to exceed the thresholds.
- As shown in Table 4.2-15, maximum daily construction activity associated with the City Program – Development Component is expected to exceed the VOC thresholds primarily due to architectural coatings (painting) of the hotel, restaurant, and retail uses.

Because daily emissions during construction activities would exceed the applicable daily significance thresholds for the Balanced Plan (NO_X), Phase 1 of the GB Capital Component (VOC, NO_X, and CO), and Phase 2 of the GB Capital Component (VOC), construction would result in a cumulatively considerable net increase of any nonattainment criteria pollutant. This impact would be potentially significant, and mitigation is required.

Table 4.2-10. Balanced Plan Construction Emissions Prior to Mitigation (estimated in pounds per day)

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Equipment	21	220	156	10	10	<1
Employee Commuting	<1	<1	5	1	<1	<1
Delivery and Haul Trucks	3	38	7	2	1	<1
Grading and Paving	1	--	--	19	10	--
Demolition Dust	--	--	--	3	<1	--
Architectural Coatings	10	--	--	--	--	--
Marine Vessels	2	11	11	<1	<1	<1
Maximum Daily Emissions	**36**	**270**	**179**	**34**	**21**	**<1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	***Yes***	*No*	*No*	*No*	*No*

Source: Appendix F.

Note: Emissions may not add up due to rounding. Emissions that exceed the threshold are shown in **bold underline.**

Table 4.2-11. GB Capital Component – Phase 1 Construction Emissions Prior to Mitigation (estimated in pounds per day)

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
2020						
Equipment	14	144	92	7	7	--
Employee Commuting	1	1	6	1	<1	<1
Delivery and Haul Trucks	1	19	4	1	<1	<1
Grading and Paving	1	--	--	18	10	--
Demolition Dust	--	--	--	3	<1	--
Architectural Coating	--	--	--	--	--	--
Marine Vessels	23	133	480	9	9	--
Maximum Daily in 2020	**40**	**297**	**582**	**40**	**27**	**1**
2021						
Equipment	3	32	33	2	2	--
Employee Commuting	1	<1	5	1	<1	<1
Delivery and Haul Trucks	1	13	3	1	<1	<1
Grading and Paving	1	--	--	6	3	--
Demolition Dust	--	--	--	--	--	--
Architectural Coating	134	--	--	--	--	--
Marine Vessels	--	--	--	--	--	--
Maximum Daily in 2021	**134**	**45**	**41**	**3**	**2**	**<1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	***Yes***	***Yes***	***Yes***	*No*	*No*	*No*

Source: Appendix F.
Note: emissions may not add up due to rounding. Emissions that exceed the threshold are shown in **bold underline.**

Table 4.2-12. GB Capital Component – Phase 2 Construction Emissions Prior to Mitigation (estimated pounds per day)

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Equipment	7	72	67	3	3	<1
Employee Commuting	<1	<1	5	1	<1	<1
Delivery and Haul Trucks	1	15	3	1	<1	<1
Grading and Paving	1	--	--	6	3	--
Demolition Dust	--	--	--	43	7	--
Architectural Coating	438	--	--	--	--	--
Maximum Daily Emissions	**438**	**87**	**75**	**54**	**13**	**<1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	***Yes***	*No*	*No*	*No*	*No*	*No*

Source: Appendix F.
Note: emissions may not add up due to rounding. Emissions that exceed the threshold are shown in **bold underline.**

Table 4.2-13. Pasha Rail Improvement Component and Pasha Road Closures Component Construction Emissions Prior to Mitigation (estimated pounds per day)

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Equipment	9	98	73	4	4	<1
Employee Commuting	<1	<1	2	<1	<1	<1
Delivery and Haul Trucks	3	37	7	2	1	<1
Grading and Paving	3	--	--	18	10	--
Demolition Dust	--	--	--	3	<1	--
Architectural Coatings	--	--	--	--	--	--
Maximum Daily Emissions	**15**	**135**	**82**	**28**	**15**	**<1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Source: Appendix F.
Note: emissions may not add up due to rounding.

Table 4.2-14. Bayshore Bikeway Component Construction Emissions Prior to Mitigation (estimated pounds per day)

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Equipment	7	75	49	4	3	<1
Employee Commuting	<1	<1	1	<1	<1	<1
Delivery and Haul Trucks	1	10	2	<1	<1	<1
Grading and Paving	<1	--	--	6	3	--
Demolition Dust	--	--	--	--	--	--
Architectural Coatings	8	--	--	--	--	--
Maximum Daily Emissions	**16**	**85**	**52**	**11**	**7**	**<1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Source: Appendix F.
Note: emissions may not add up due to rounding.

Table 4.2-15. City Program – Development Component Construction Emissions Prior to Mitigation (estimated pounds per day)

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Equipment	18	197	156	8	8	<1
Employee Commuting	1	1	14	2	<1	<1
Delivery and Haul Trucks	2	35	7	2	1	<1
Grading and Paving	<1	--	--	6	3	--
Demolition Dust	--	--	--	5	1	--
Architectural Coatings	180	--	--	--	--	--
Maximum Daily Emissions	**180**	**234**	**177**	**23**	**13**	**<1**
Thresholds	75	250	550	100	55	250

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Exceed Threshold?	***Yes***	*No*	*No*	*No*	*No*	*No*

Source: Appendix F.
Note: emissions may not add up due to rounding. Emissions that exceed the threshold are shown in **bold underline.**

All Project Components

As discussed above, while construction would occur in two general phases, the exact timing of construction of the various components is unknown. However, given that construction of various components could overlap over the life of the proposed project a discussion of the maximum potential overlap is included below.

Table 4.2-16 summarizes the peak daily emissions for each project component by year. A summary of impacts is as follows:

- In the first year of construction (assumed to be 2020 for modeling purposes), construction of all project components, except for Phase 2 of the GB Capital Component, are assumed to begin. Emissions would exceed the applicable daily significance thresholds for VOC, NO_X, CO, PM10, and PM2.5. The VOC, NO_X, CO, PM10, and PM2.5 exceedances are due to the overlapping of all components, but, as stated above, Phase 1 of the GB Capital Component would individually exceed the VOC, NO_X, and CO thresholds (see Table 4.2-11) and the development associated with the Balanced Plan would individually exceed the NO_X thresholds (see Table 4.2-10). Mitigation is required to reduce VOC, NO_X, CO, PM10, and PM2.5 emissions from all components.
- All of the project components (that are assumed in this analysis to overlap) are assumed to be under construction through year two of construction (assumed to be), except for the Bayshore Bikeway Component, which is assumed to be completed in the first year of construction. In 2023, emissions would exceed the applicable daily significance threshold for VOC assuming all relevant components overlap. This exceedance is primarily due to the architectural coating (painting) phase associated with the Phase 1 of the GB Capital Component and the City Program – Development Component. Mitigation is required to reduce VOC emissions.
- In year three of construction (assumed to be 2022), the only component assumed to be under construction is Phase 2 of the GB Capital Component. Emissions during 2022 would not exceed applicable daily significance thresholds.
- In year four of construction (assumed to be 2023), the only component assumed to be under construction is Phase 2 of the GB Capital Component. Emissions during 2023 would not exceed applicable daily significance thresholds.
- In year five of construction (assumed to be 2024), the only component assumed to be under construction is Phase 2 of the GB Capital Component. Emissions during 2024 would not exceed applicable daily significance thresholds.
- In the final year of construction (assumed to be 2025), the only component assumed to be under construction is Phase 2 of the GB Capital Component. Emissions during 2025 would exceed the applicable daily significance threshold for VOC assuming due to the architectural coating (painting) phase. Mitigation is required to reduce VOC emissions.

Because daily emissions during concurrent construction activities would exceed the applicable daily significance thresholds for overlapping activities, maximum daily construction would result in a

cumulatively considerable net increase of any nonattainment criteria pollutant. This impact would be potentially significant, and mitigation is required.

Table 4.2-16. Emissions from Construction of All Components Prior to Mitigation (estimated pounds per day)

Year	VOC	NO_X	CO	PM10	PM2.5	SO_X
2020	**141**	**1,021**	**1,072**	**135**	**83**	2
GB Capital Phase 1	*40*	*297*	*582*	*40*	*27*	*1*
City Program – Development	*34*	*234*	*177*	*23*	*13*	*<1*
Balanced Plan	*36*	*270*	*179*	*34*	*21*	*<1*
Bayshore Bikeway	*16*	*85*	*52*	*11*	*7*	*<1*
Pasha Rail	*15*	*135*	*82*	*28*	*15*	*<1*
2021	**315**	102	114	7	5	<1
GB Capital Phase 1	*134*	*45*	*41*	*3*	*2*	*<1*
City Program – Development	*180*	*45*	*59*	*4*	*2*	*<1*
Balanced Plan	*1*	*12*	*14*	*1*	*1*	*<1*
2022	9	87	75	54	13	<1
GB Capital Phase 1	*9*	*87*	*75*	*54*	*13*	*<1*
2023	1	7	14	1	<1	<1
GB Capital Phase 2	*1*	*7*	*14*	*1*	*<1*	*<1*
2024	1	10	23	1	<1	<1
GB Capital Phase 2	*1*	*10*	*23*	*1*	*<1*	*<1*
2025	**483**	32	58	32	6	<1
GB Capital Phase 2	*483*	*32*	*58*	*32*	*6*	*<1*
Maximum Daily Overall	**483**	**1,021**	**1,072**	**135**	**83**	**2**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	***Yes***	***Yes***	***Yes***	***Yes***	***Yes***	*No*

Source: Appendix F.
Note: emissions may not add up due to rounding. Emissions that exceed the threshold are shown in **bold underline**.

Operation Emissions

Operational emissions are presented to represent conditions in three separate analysis years: 2022, 2025, and 2050, based on the assumption that all components would be operational by or around 2022 except for Phase 2 of the GB Capital Component, which is assumed to not be operational until 2025. Because construction of Phase 2 of the GB Capital Component would occur after 2022 and could overlap with operations of other components, construction emissions are combined with operational emissions in 2022. Year 2050 represents the buildout horizon for all components.

An estimate of daily emissions associated with project operations over existing conditions is presented in Table 4.2-17. As shown, emissions during project operations over existing conditions are anticipated to exceed the VOC and PM10 threshold but remain below all other pollutant thresholds. The VOC exceedance would result regardless of overlap with construction, but the PM10 exceedance is due primarily to the overlap of construction of GB Capital – Phase 2 and operation of all other components. The major component of operational VOC and PM10 emissions are due the woodburning hearths and fireplaces that may be attributed to RV park uses. Therefore, operation of

the proposed project would result in a cumulatively considerable net increase of any nonattainment criteria pollutant during operation of the GB Capital Component, City Program Component, and Balanced Plan (**Impact-AQ-3**). This impact is considered potentially significant and mitigation is required.

For the 2025 and 2050 analysis years, the VOC emissions are estimated to exceed the VOC threshold, primarily due to woodburning hearths and fireplaces associated with operation of both Phase 1 and Phase 2 of the GB Capital Component (**Impact-AQ-3**). This impact is considered potentially significant and mitigation is required.

The connector and storage tracks associated with the Pasha Rail Improvement Component would provide Pasha more efficient access empty rail cars, which would improve operations associated with train loading by reducing train trips offsite to pick up railcars, resulting in quicker and more efficient train builds. Based on the District's 2016 air emissions inventory, it takes approximately 4.5 hours to build a train for departure at the National City Marine Terminal (NCMT), and train building (or switching) accounts for approximately 24% of NO_X emissions from trains as of 2016 (District 2018). Improving the efficiency of train builds by reducing movements and total equipment hours will reduce diesel emissions at and near the marine terminal. While the exact reduction in hours is unknown, emissions are anticipated to be reduced over existing conditions.

Moreover, the proposed project would decrease the throughput potential at the marine terminal by 10,374 vehicles per year relative to what was previously analyzed in the NCMT Tank Farm EIR (see Chapter 3, Section 3.4.4). Thus, the proposed project would not increase the amount of cargo that is moved in and out via trains at the marine terminal. Therefore, emissions from the Pasha Rail Improvement Component would be less than significant.

Table 4.2-17. Operational Emissions by Component Prior to Mitigation (estimated pounds per day)

Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
2022						
Balanced Plan	3	4	20	3	1	<1
GB Capital – Phase 1	220	12	295	39	37	1
Pasha Rail Improvement	--	--	--	--	--	--
Bayshore Bikeway	<1	<1	<1	<1	<1	<1
City Program – Development	16	18	72	9	2	<1
GB Capital – Phase 2 (Construction)	*9*	*87*	*75*	*54*	*13*	*<1*
2022 Total	**248**	**121**	**461**	**105**	**53**	**1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	***Yes***	*No*	*No*	***Yes***	*No*	*No*
2025						
Balanced Plan	3	3	17	3	1	<1
GB Capital – Phases 1 and 2	144	30	229	31	22	1
Pasha Rail Improvement	--	--	--	--	--	--
Bayshore Bikeway	<1	<1	<1	<1	<1	<1
City Program – Development	15	15	62	9	2	<1
2025 Total	**161**	**49**	**308**	**43**	**25**	**1**

Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Thresholds	75	250	550	100	55	250
Exceed Threshold?	***Yes***	*No*	*No*	*No*	*No*	*No*
2050						
Balanced Plan	1	3	13	3	1	<1
GB Capital – Phases 1 and 2	138	27	207	31	22	<1
Pasha Rail Improvement	--	--	--	--	--	--
Bayshore Bikeway	<1	<1	<1	<1	<1	<1
City Program – Development	11	12	46	9	2	<1
2050 Total	**150**	**42**	**266**	**43**	**25**	**1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	***Yes***	*No*	*No*	*No*	*No*	*No*

Source: Appendix F.
Note: emissions may not add up due to rounding. Emissions that exceed the threshold are shown in **bold underline.**

Cumulative Emissions

The cumulative projects identified in the study area are listed in Table 5-2 of Chapter 5. The projects within a 1-mile radius of the proposed project site that could contribute cumulative impacts on localized air quality conditions include the following:

Interim Segment 5 of the Bayshore Bikeway (Cumulative Project #1), Westside Infill Transit Oriented Development (WI-TOD) (Cumulative Project #3), NCMT Berth 24-10 Structural & Mooring Repair (Cumulative Project #4), National City Marine Terminal Tank Farm Paving and Street Closures Project (Cumulative Project #5), Pier 12 Replacement and Dredging at Naval Base San Diego (Cumulative Project #17), National City Marine Terminal Roof 24-1 Vehicle Maintenance Building (Cumulative Project #21), Doors & Windows Replacement at National City Rail Car Plaza (Cumulative Project #42), Structural Repairs at NCMT Berth 24-11 (Cumulative Project #43), Structural Repairs at NCMT Berth 24-3 (Cumulative Project #44), Roof Replacement at NCMT Warehouse 24-B (Cumulative Project #45), Pavement Improvements at National City (Cumulative Projects #46), Switchboard and Transformer Replacement at National City Marine Terminal (Cumulative Project #47), Electrical Upgrades to NCMT Berths 24-10 and 24-11 (Cumulative Project #48), Pavement Maintenance at National City (Cumulative Project #49), and BNSF National City Yard Improvements (Cumulative Project #52).

Construction related to the nearby Westside Infill Transit Oriented Development (WI-TOD) (Cumulative Project #3), Doors & Windows Replacement at National City Rail Car Plaza (Cumulative Project #42), Structural Repairs at NCMT Berth 24-11 (Cumulative Project #43), Structural Repairs at NCMT Berth 24-3 (Cumulative Project #44), Roof Replacement at NCMT Warehouse 24-B (Cumulative Project #45), Pavement Improvements at National City (Cumulative Projects #46), Switchboard and Transformer Replacement at National City Marine Terminal (Cumulative Project #47), Electrical Upgrades to NCMT Berths 24-10 and 24-11 (Cumulative Project #48), and Pavement Maintenance at National City (Cumulative Project #49) would potentially overlap with the construction of the proposed project, which is scheduled to begin in the 2020 to 2021 timeframe.

As discussed above and shown in Tables 4.2-10 through 4.2-16, prior to mitigation, criteria pollutant emissions are expected to exceed significance threshold levels for VOC, NO_X, and CO during construction. Specifically, by component, emissions would be exceeded for the Balanced Plan (NO_X),

Phase 1 of the GB Capital Component (VOC, NO_X, and CO), Phase 2 of the GB Capital Component (VOC), and the City Program – Development Component (VOC) (**Impact-AQ-2**). Moreover, once operational, emissions are expected to exceed significance threshold levels for VOC during operations in each analysis year (**Impact-AQ-3**). Lastly, emissions would exceed the significance threshold levels for PM10 during overlapping construction and operational activities in 2022 (**Impact-AQ-3**). Construction emissions from all nearby projects, including those listed above, would be subject to the same SDAPCD rules and regulations that reduce emissions from the proposed project, including fugitive dust control per Rule 55 and VOC limits in coatings per Rule 67. With **MM-AQ-2** through **MM-AQ-5** incorporated, construction PM10, PM2.5, and NO_X emissions would be reduced to below thresholds. However, because the proposed project would result in emissions that are above SLTs during construction and operation, the project could potentially result in a cumulatively considerable net increase in a nonattainment pollutant. This impact is considered potentially significant during construction (**Impact AQ-2**) and operation (**Impact AQ-3**), and mitigation is required.

Level of Significance Prior to Mitigation

Construction

Construction of the proposed project would result in cumulatively considerable net increase of criteria pollutants for which the project region is classified as nonattainment under an applicable federal or state ambient air quality standard. Potentially significant impact(s) include:

Impact-AQ-2: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Construction (All Components). Project emissions during construction, before mitigation, would exceed the applicable significance thresholds for the development portions of the Balanced Plan (NO_X only), Phase 1 of the GB Capital Component (VOC, NO_X, and CO), Phase 2 of the GB Capital Component (VOC only), and the City Program – Development Component (VOC only), as well as VOC, NO_X, CO, PM10, and PM2.5 collectively for all project components. The contribution of project-related emissions is considered significant because the project would exceed thresholds that have been set to attain the NAAQS and CAAQS, the purpose of which is to provide for the protection of public health.

Operation

Operation of the proposed project would result in cumulatively considerable net increase of criteria pollutants for which the project region is nonattainment under an applicable federal or state ambient air quality standard. Potentially significant impact(s) include:

Impact-AQ-3: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Operation (GB Capital Component, City Program Component, and Balanced Plan). Project emissions during operation, before mitigation, would exceed the applicable thresholds for VOC and PM10 for the GB Capital Component, City Program Component, and Balanced Plan. The contribution of project-related emissions is considered significant because the project would exceed thresholds set to attain the NAAQS and CAAQS, the purpose of which is to provide for the protection of public health.

Mitigation Measures

Construction

For **Impact-AQ-2**:

MM-AQ-2: Implement Diesel Emission-Reduction Measures During Construction (All Project Components). To control VOC, NO_X, CO, PM10, and PM2.5 emissions during construction, the project proponent/operator and/or its contractor(s) shall implement or require implementation by its construction contractor(s) the following measures during construction of their corresponding proposed project component, and shall provide verification to the District (or City).

Prior to the commencement of construction activities of any project component, the project proponent for that project component shall submit a list of equipment to be used and their equipment specifications (model year, engine tier, horsepower) to the District's Development Services Department (for the components' within the District's jurisdiction) or the City's Community Development Department (for the component's within the City's jurisdiction) to ensure the construction equipment list is consistent with the following requirements. Following construction, the project proponent/operator and/or its contractor(s) shall provide written evidence that the construction was consistent with following requirements:

- For all construction between 2022 and 2025, ensure that all off-road diesel equipment engines over 25 horsepower shall be equipped with EPA Tier 3 or cleaner engines, unless Tier 3 construction equipment is not available within 50 miles of the project site. The project proponent shall document and submit evidence to the District prior to commencement of construction activities that Tier 3 or cleaner equipment shall be used, or that Tier 3 or better equipment is not available for use during the entire duration of that project's construction period through 2025.
- For all construction beyond 2025, ensure that all off-road diesel equipment engines over 25 horsepower shall be equipped with EPA Tier 4 or cleaner engines, unless Tier 4 construction equipment is not available within 50 miles of the project site. The project proponent shall document and submit evidence to the District prior to commencement of construction activities that Tier 4 or cleaner equipment shall be used, or that Tier 4 or cleaner equipment is not available for use during the entire duration of that project's construction period beyond 2025.
- Use renewable diesel fuel in all heavy-duty off-road diesel-fueled equipment. Renewable diesel must meet the most recent ASTM D975 specification for Ultra Low Sulfur Diesel and have a carbon intensity no greater than 50% of diesel with the lowest carbon intensity among petroleum diesel fuels sold in California.
- Maintain all equipment in accordance with the manufacturers' specifications.
- Turn off all construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, when not in use for more than 5 minutes.
- Use zero or near-zero emissions equipment in-lieu of diesel or gasoline-powered equipment, where such zero or near-zero equipment is commercially available within 50 miles of the project site.

- Use diesel particulate filters (or the equivalent) if permitted under manufacturer's guidelines for on-road and off-road diesel equipment.

MM-AQ-3: Implement Fugitive Dust Control During Construction (All Project Components). To control fugitive PM10 and PM2.5 emissions during construction of any project component, the project proponent/operator and/or its contractor(s) for each component shall implement the following dust control measures in compliance with SDAPCD Rule 55. The following shall be conditions in any Coastal Development Permit or City-issued permit (such as grading and building permits) and shall be implemented by that project proponent/operator and/or its contractor(s).

- Water the grading areas at a minimum of three times daily to minimize fugitive dust.
- Stabilize graded areas as quickly as possible to minimize fugitive dust.
- Apply chemical stabilizer or pave the last 100 feet of internal travel path within the construction site prior to public road entry.
- Install wheel washers adjacent to a paved apron prior to vehicle entry on public roads.
- Remove any visible track-out into traveled public streets within 30 minutes of occurrence.
- Wet wash the construction access point at the end of each workday if any vehicle travel on unpaved surfaces has occurred.
- Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads.
- Cover haul trucks or maintain at least 12 inches of freeboard to reduce blow-off during hauling.
- Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 mph.
- Cover/water onsite stockpiles of excavated material.
- Enforce a 15 mph speed limit on unpaved surfaces.
- On dry days, sweep up any dirt and debris spilled onto paved surfaces immediately to reduce re-suspension of particulate matter caused by vehicle movement. Clean approach routes to construction sites daily for construction-related dirt in dry weather.
- Hydroseed, landscape, or develop as quickly as possible all disturbed areas and as directed by the District and/or SDAPCD to reduce dust generation.
- Limit the daily grading volumes/area.

The project proponent/operator and/or its contractor(s) for each component shall submit evidence of the use of fugitive dust reduction measures to the District or City after the completion of construction.

MM-AQ-4: Use Low-VOC Interior and Exterior Coatings During Construction (GB Capital Component and City Program – Development Component). To control VOC emissions during any painting activities during construction, the project proponent/operator and/or its contractor(s) for all phases of GB Capital Component (Phase 1 and Phase 2) and City Program – Development Component shall use low-VOC coatings for all surfaces that go beyond the requirements of SDAPCD Rule 67.0. If architectural coatings (painting) of any single component or multiple components would exceed 10,000 square feet per day, then each project component

active on that day shall use coatings with a VOC content of 10 grams per liter or less for all surfaces to be painted. If architectural coatings (painting) of any single component or multiple components would be below 10,000 square feet per day, then each component shall use coatings with a VOC content of 75 grams per liter or less. Prior to the commencement of construction activities associated with the GB Capital Component, the project proponent shall submit a list of coatings to be used, their respective VOC content, and a summary of surface area to be painted to the District's Development Services Department. Prior to the commencement of construction activities associated with the City Program – Development Component, the project proponent shall submit a list of coatings to be used, their respective VOC content, and a summary of surface area to be painted to the City's Community Development Department. The District and City, for their respective jurisdictions, may conduct inspections during construction to verify the use of low-VOC coatings.

MM-AQ-5: Use Modern Harbor Craft During Construction Activities (GB Capital Component and Balanced Plan). Prior to commencing any waterside construction or activities, including the relocation of Granger Hall, the project proponent/operator and/or its contractor(s) for the Balanced Plan and the GB Capital Component shall ensure that any harbor craft, including but not limited to tugboats, pusher tugs, tow boats, work boats, crew boats, and supply boats for use during the duration of any in-water work, or in the relocation of Granger Hall, shall meet the following criteria:

- For all construction between 2022 and 2025, ensure all equipment is Tier 3 or better (cleaner).
- For all construction after 2025, ensure all equipment is alternatively fueled or electrically powered. If alternatively fueled or electrically powered equipment that emits less emission than Tier 4 or better (cleaner) is not available, then the project proponent shall ensure all equipment is Tier 4 or better.
- Use renewable diesel fuel in all heavy-duty off-road diesel-fueled equipment. Renewable diesel must meet the most recent ASTM D975 specification for Ultra Low Sulfur Diesel and have a carbon intensity no greater than 50% of diesel with the lowest carbon intensity among petroleum diesel fuels sold in California.

If clean harbor craft are not available within 200 miles of the project site for the duration of all dredging activities, the project proponent/operator and/or its contractor(s) for the GB Capital Component shall prioritize use of equipment that is maintained and properly tuned in accordance with manufacturers' specifications. The project proponent/operator and/or its contractor(s) for the Balanced Plan and the GB Capital Component shall document and submit evidence to the District's Development Services Department and/or the City's Community Development Department prior to commencement of waterside construction activities, that equipment meeting the above tiering requirements or better standards is not available for use during the duration of all in-water activities. Regardless of the equipment used, the project proponent/operator and/or its contractor(s) for each component shall verify that all equipment has been checked by a mechanic experienced with such equipment and determined to be running in proper condition prior to admittance into the construction area. The project proponent/operator and/or its contractor(s) for each component shall submit a report prepared by the mechanic experienced with such equipment of the condition of the construction and operations vehicles and equipment to the District's Development Services Department and/or the City's Community Development Department prior to commencement of their use.

MM-AQ-6: Stagger Overlapping Construction Phases and Components (All Project Components). Each project proponent/operator and/or its contractor(s) shall submit a construction schedule and assumed construction activity at least 3 months prior to the start of construction to the District and City. If grading, waterside construction activities (associated with GB Capital Component Phase 1), and relocation of Granger Hall (if this option is approved by the District) are to take place at the same time, they shall be reduced or staggered as to not to exceed daily air quality thresholds and such reduction or staggering shall be a condition of grading and building permits. However, multiple project components' grading may take place at the same time. The District and City, for their respective jurisdictions, may conduct inspections during construction to verify activity.

Operation

For **Impact-AQ-3**:

MM-AQ-7: Restrict Installation of Fireplaces and Firepits in New Construction (City Program, GB Capital Component [Phase 1 and Phase 2], and Balanced Plan). The proponent/operator and/or its contractor(s) of the City Program – Development Component, the GB Capital Component, and the Balanced Plan shall ensure that no outdoor woodburning stoves, fireplaces, or firepits are installed, and all fireplaces and firepits shall be fueled by natural gas. The project proponent/operator and/or its contractor(s) for each component shall submit evidence that no outdoor woodburning stoves, fireplaces, or firepits are wood-burning to the District (or City for City Program), and the District (or City for City Program) may conduct inspections during construction to verify the details that were submitted are accurate.

Level of Significance After Mitigation

Construction

As shown in Table 4.2-18 through 4.2-23, with implementation of **MM-AQ-2** through **MM-AQ-6,** construction-related emissions (**Impact AQ-2**) would be reduced to below the applicable significance thresholds.

Specifically, **MM-AQ-6** would limit overlap of activities associated with separate projects and separate project components. This would ensure that maximum daily construction activity associated with overlapping activities from all project components would be below the applicable significance thresholds after mitigation. As such, construction of the proposed project would not violate an air quality standard or contribute substantially to an existing or projected air quality standard. Therefore, when combined with contributions of nonattainment pollutant emissions of past, present, and probable future projects, the proposed project's contribution of nonattainment pollutants would be less than cumulatively considerable during construction.

Table 4.2-18. Balanced Plan Construction Emissions After Mitigation (estimated in pounds per day)

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Equipment	7	134	170	6	6	<1
Employee Commuting	<1	<1	5	1	<1	<1
Delivery and Haul Trucks	3	38	7	2	1	<1
Grading and Paving	1	--	--	7	4	--

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Demolition Dust	--	--	--	3	<1	--
Architectural Coatings	5	--	--	-	--	--
Marine Vessels	2	11	11	<1	<1	<1
Maximum Daily Emissions	**17**	**184**	**193**	**18**	**11**	**<1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Source: Appendix F.
Emissions may not add up due to rounding.

Table 4.2-19. GB Capital Component – Phase 1 Construction Emissions After Mitigation (estimated in pounds per day)

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
2020						
Equipment	4	77	96	3	3	<1
Employee Commuting	1	1	6	1	<1	<1
Delivery and Haul Trucks	1	19	4	1	<1	<1
Grading and Paving	1	--	--	7	4	--
Demolition Dust	--	--	--	3	<1	--
Architectural Coating	<1	--	--	--	--	--
Marine Vessels	13	78	250	5	5	<1
Maximum Daily in 2020	**13**	**78**	**250**	**5**	**5**	**<1**
2021						
Equipment	1	24	33	1	1	<1
Employee Commuting	1	<1	5	<1	<1	<1
Delivery and Haul Trucks	1	13	3	<1	<1	<1
Grading and Paving	<1	--	--	<1	<1	--
Demolition Dust	--	--	--	<1	<1	--
Architectural Coating	121	--	--	--	--	--
Marine Vessels	--	--	--	--	--	--
Maximum Daily in 2021	**67**	**37**	**41**	**2**	**1**	**<1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Source: Appendix F.
Note: emissions may not add up due to rounding. Emissions that exceed the threshold are shown in **bold underline.**

Table 4.2-20. GB Capital Component – Phase 2 Construction Emissions After Mitigation (estimated in pounds per day) 2022

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Equipment	5	74	91	3	3	<1
Employee Commuting	<1	<1	5	1	<1	<1
Delivery and Haul Trucks	1	15	3	1	<1	<1
Grading and Paving	1	--	--	2	1	--

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Demolition Dust	--	--	--	43	7	--
Architectural Coating	<1	--	--	--	--	--
Maximum Daily Emissions	**7**	**89**	**98**	**50**	**11**	**<1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Source: Appendix F.
Note: emissions may not add up due to rounding.

Table 4.2-21. Pasha Rail Improvement Component and Road Closures Component Construction Emissions After Mitigation (estimated in pounds per day)

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Equipment	3	64	76	3	3	<1
Employee Commuting	<1	<1	2	<1	<1	<1
Delivery and Haul Trucks	3	37	7	2	<1	<1
Grading and Paving	3	--	--	7	4	0
Demolition Dust	--	--	--	3	<1	--
Architectural Coatings	--	--	--	--	--	--
Maximum Daily Emissions	**9**	**102**	**85**	**15**	**7**	**1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Source: Appendix F.
Note: emissions may not add up due to rounding.

Table 4.2-22. Bayshore Bikeway Component Construction Emissions After Mitigation (estimated in pounds per day)

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Equipment	2	42	54	2	2	<1
Employee Commuting	<1	<1	1	<1	<1	<1
Delivery and Haul Trucks	1	10	2	<1	<1	<1
Grading and Paving	<1	--	--	2	1	--
Demolition Dust	--	--	--	--	--	--
Architectural Coatings	4	--	--	--	--	--
Maximum Daily Emissions	**7**	**52**	**57**	**5**	**3**	**<1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Source: Appendix F.
Note: emissions may not add up due to rounding.

Table 4.2-23. City Program – Development Component Construction Emissions After Mitigation (estimated in pounds per day)

Emission Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Equipment	9	150	185	6	6	<1
Employee Commuting	1	1	14	2	<1	<1
Deliver and Haul Trucks	4	65	13	3	2	<1
Grading and Paving	1	--	--	3	1	--
Demolition Dust	--	--	--	6	1	--
Architectural Coatings	6	--	--	--	--	--
Maximum Daily Emissions	**19**	**186**	**206**	**17**	**9**	**<1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Source: Appendix F.
Note: emissions may not add up due to rounding. Emissions that exceed the threshold are shown in **bold underline.**

Operation

As shown in Table 4.2-24, with implementation of **MM-AQ-7**, emissions of VOC and PM10 during operation of the proposed project would be reduced to below the applicable significance thresholds (**Impact AQ-3**). As such, operation of the proposed project would not violate an air quality standard or contribute substantially to an existing or projected air quality standard. The impact would be less than significant.

Table 4.2-24. Operational Emissions By Component After Mitigation (estimated in pounds per day)

Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
2022						
Balanced Plan	3	4	20	<1	<1	<1
GB Capital – Phase 1	13	10	40	4	1	<1
Pasha Rail Improvement	--	--	--	--	--	--
Bayshore Bikeway	<1	<1	<1	<1	<1	<1
City Program – Development	16	18	72	9	2	<1
GB Capital – Phase 2 Construction	*7*	*89*	*98*	*50*	*11*	*<1*
2022 Total	**39**	**122**	**230**	**65**	**16**	**1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*
2025						
Balanced Plan	3	3	17	3	1	<1
GB Capital – Phases 1 and 2	37	29	97	13	4	<1
Pasha Rail Improvement	--	--	--	--	--	--
Bayshore Bikeway	<1	<1	<1	<1	<1	<1
City Program – Development	15	15	62	9	2	<1
2025 Total	**54**	**47**	**176**	**24**	**7**	**1**

Source	VOC	NO_X	CO	PM10	PM2.5	SO_X
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*
2050						
Balanced Plan	1	3	12	3	1	<1
GB Capital – Phases 1 and 2	31	25	73	13	4	<1
Pasha Rail Improvement	--	--	--	--	--	--
Bayshore Bikeway	<1	<1	<1	<1	<1	<1
City Program – Development	11	12	45	9	2	<1
2050 Total	**43**	**40**	**130**	**24**	**7**	**<1**
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Source: Appendix F.
Note: emissions may not add up due to rounding.

Threshold 3: Implementation of the proposed project would expose sensitive receptors to substantial pollutant concentrations.

Impact Discussion

The discussion of pollutant concentrations associated with diesel particulate matter, carbon monoxide hotspots, and criteria pollutants, during both the construction and operation of the various project components, is provided below.

Diesel Particulate Matter

DPM, which is classified as a carcinogenic TAC by CARB, is the primary exhaust pollutant of concern with regard to health risks to sensitive receptors. Diesel-powered construction equipment as well as heavy-duty truck movement and hauling both on and off site would emit DPM that could potentially expose nearby sensitive receptors to pollutant concentrations.

Consistent with CARB rulemaking, the discussion below focuses on DPM (CARB 2018b). For purposes of analysis, diesel PM10 exhaust emissions presented in this analysis are used as a surrogate for DPM, consistent with OEHHA guidance (2015).

Sensitive receptors are defined as locations where pollutant-sensitive members of the population may reside or where the presence of air pollutant emissions could adversely affect use of the land, and typically include residential areas, hospitals, daycare facilities, elder-care facilities, elementary schools, and parks. There are no residential uses within District tidelands, but the tidelands are near residential uses in nearby neighborhoods. There are recreational (park) uses within the project site, on District tidelands. Nearby sensitive receptors include Pepper Park and Pier 32 marina uses, future RV Park visitors, future Bayshore Bikeway users, and a few multi- and single-family residential uses north of Bay Marina Drive. Residential uses are less than 400 feet from the City Program – Development Component and adjacent Bayshore Bikeway Component, but are more than 0.5 mile from all other project components.

Construction activities associated with all of the project components would be sporadic, occurring off and on over an approximately 5-year period, which is shorter than the assumed 9-, 30-, or 70-

year exposure period typically used to estimate lifetime cancer risks. Receptors that access the nearby park uses would have limited exposure to diesel exhaust, with exposure limited to visitation that coincides with weekday construction activities. DPM emitted by these sources can remain airborne for several days. However, given the prevailing winds and meteorological conditions at the project site during daytime construction hours, pollutant emission concentrations would be expected to be well dispersed. Construction activities would be sporadic, transitory, and short term in nature; once construction activities end, so too would the source of emissions.

In addition, diesel exhaust (in the form of PM10 exhaust) associated with construction equipment would be minimal and limited to the construction sites themselves. Moreover, diesel-vehicle activity on public roadways would be minimal and scattered, comprising delivery and material haul trips. Additionally, the majority of construction activities would not be in the proximity of nearby residential uses, except for Bayshore Bikeway, which might occur for a short duration near some residential uses, but activities would be minimal. Furthermore, while construction of all components may last many years at all sites, and around 1 year for the Bayshore Bikeway, construction at any single site would be short term and transitory, result in minimal emissions, and occur at distances not expected to expose sensitive receptor locations to substantial pollutant concentrations. As such, impacts from the emission of DPM during construction would be less than significant for all project components.

Once the proposed project is operational, DPM emissions would include motor vehicles that visit the site, intermittent material deliveries along public roads, and exhaust associated with recreational boating in and around marina uses. Emissions from these uses would be infrequent and transitory and occur at distances not expected to expose sensitive receptor locations to substantial pollutant concentrations. Onsite truck idling would be minimal for the proposed uses, limited to a maximum of 5 minutes per truck at any one location, consistent with CARB's Heavy-Duty Idling Reduction Program, while truck activity would be limited to infrequent deliveries to supply materials for the proposed hotel and retail uses.

Moreover, the Pasha Rail Improvement Component would allow Pasha to store rail cars and other train materials, which would improve operations associated with train loading by reducing train trips off site to pick up railcars, and would result in quicker and more efficient train builds. This improved efficiency is likely to result in fewer trains moved and hours to build trains from switching operations, which would reduce emissions at the marine terminal. Thus, the Pasha Rail Improvement Component would result in lower pollutant concentrations at nearby receptor locations.

The predominant wind direction at the project site is west–northwest, with infrequent daytime calm winds (approximately 5% of the time at both Chula Vista and Lindbergh Field). Daytime winds (which average 5.1 mph at Chula Vista and 7.6 mph at Lindbergh Field) will potentially disperse pollutants away from the nearest residential and recreational receptors. The proposed project may also create a nuisance for nearby visitors during hours of construction and operations, as diesel trucks could create occasional exposure to exhaust, but this would be minimal. As such, impacts from the emission of DPM during operations would be less than significant for all project components.

Carbon Monoxide Hotspots

CO hotspot analyses address the implications of high short-term concentrations of CO, which typically occur at locations with high traffic volumes and congestion. For this reason, hotspots are often correlated with Level of Service (LOS) at intersections. Due to the short-term and temporary nature of construction activities, CO emissions generated during construction of the proposed project are not anticipated to result in long-term CO hotspot impacts. During operations, the potential for the project to result in localized CO impacts at intersections resulting from addition of its traffic volumes is assessed based on suggested criteria, which recommends performing a localized CO impact analysis for intersections operating at or below LOS E, or and adding over 3,000 peak-hour trips (County of San Diego 2007). According to the project's Traffic Impact Analysis, the project would add volumes to one intersection (I-5 Southbound Ramps and Bay Marina Drive) that operates at LOS E or worse. However, peak hour volumes at this intersection are less than the 3,000 peak hour trigger for quantitatively analyzing CO hotspot impacts. Therefore, impacts related to exposure to CO hotspots at congested roadways during construction and operations would be less than significant for all project components.

Criteria Air Pollutants

Adverse health effects induced by criteria pollutant emissions generated by buildout of the proposed project are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). For these reasons, ozone precursors (VOC and NO_X) contribute to the formation of groundborne ozone on a regional scale. Emissions of VOC and NO_X generated in one area may not equate to a specific ozone concentration in that same area. Similarly, some types of particulate pollution may be transported over long distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased ozone or regional PM concentrations are the product of emissions generated by numerous sources throughout a region, as opposed to a single individual project. Moreover, exposure to regional air pollution does not guarantee that an individual will experience an adverse health effect—as discussed above, there are large individual differences in the intensity of symptomatic responses to air pollutant. These differences are influenced, in part, by the underlying health condition of an individual, which cannot be known.

Nonetheless, emissions generated by the various project components could increase photochemical reactions and the formation of tropospheric ozone and secondary PM, which at certain concentrations, could lead to increased incidence of specific health consequences, such as various respiratory and cardiovascular ailments. As discussed above, air quality thresholds presented in Table 4.2-9, which are based on SDAPCD's trigger levels and the county's SLTs, consider existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. SDAPCD considers projects that generate criteria pollutant and ozone precursor emissions below their thresholds to be minor in nature and would not adversely affect air quality such that the health-protective NAAQS or CAAQS would be exceeded. If all construction activities overlap or occur concurrently for all project components on a given day, then construction emissions combined with emissions associated with operations in effect at the same time could exceed thresholds. This impact is considered potentially significant (**Impact AQ-4**) and mitigation is required. Consequently, after mitigation, the proposed project would not contribute a significant level of air pollution within the SDAB, which is currently in

nonattainment for O_3 under NAAQS, and for O_3, PM10, and PM2.5 under the CAAQS.[14] Mitigation measures **MM-AQ-1** through **MM-AQ-6** would ensure project uses are accounted for in the RAQS and SIP update and that localized and regional construction emissions are reduced to levels below relevant thresholds. Long-term operation of proposed project uses would result in an increase in emissions, but this increase would be below relevant thresholds after implementation of mitigation (**MM-AQ-7**). Because emissions would not exceed thresholds during either construction or operation after mitigation, the proposed project would not contribute a significant level of air pollution that would expose sensitive receptors to substantial pollutant concentrations.

Asbestos-Containing Materials

Demolition of existing structures results in fugitive dust and other particulates that may disperse to adjacent sensitive receptor locations. Asbestos-containing materials (ACMs) were commonly used as fireproofing and insulating agents prior to 1977, which is when the U.S. Consumer Product Safety Commission banned most ACM use due to their link to mesothelioma. However, none of the components of the proposed project involve demolition of any buildings built before 1980. Therefore, health risks related to asbestos-containing materials are considered less than significant. Further detail on ACM risks is presented in Section 4.7, *Hazards and Hazardous Materials*.

Level of Significance Prior to Mitigation

Implementation of the proposed project would expose sensitive receptors to substantial pollutant concentrations. Potentially significant impact(s) include:

Impact-AQ-4: Health Effects During Construction (All Project Components). Project-related emissions during construction could contribute a significant level of air pollution from VOC, NO_X, CO, PM10, and PM2.5 emissions within the SDAB. Overlapping construction activities could exceed relevant thresholds that that have been set by SDAPCD to attain the NAAQS and CAAQS, the purpose of which is to provide for the protection of public health.

Mitigation Measures

For **Impact-AQ-4**:

Implement **MM-AQ-2** through **MM-AQ-6**, as described under Threshold 2.

Level of Significance After Mitigation

Implementation of **MM-AQ-2** through **MM-AQ-6** would reduce emissions below thresholds that were adopted for the purpose protecting of public health. Therefore, after mitigation, **Impact AQ-4** would be less than significant.

[14] Because the SDAB generally tends to be a VOC-limited regime, VOC emissions generated in excess of thresholds could more directly contribute to additional violations of the O_3 ambient air quality standards (SDAPCD 2007).

Threshold 4: Implementation of the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Impact Discussion

Although offensive odors rarely cause any physical harm, they can be unpleasant and lead to considerable distress among the public. This distress may often generate citizen complaints to local governments and air districts. Any project with the potential to frequently expose the public to objectionable odors would be deemed as having a significant impact.

According to CARB's *Air Quality and Land Use Handbook*, land uses associated with odor complaints typically include sewage treatment plants, landfills, recycling facilities, and manufacturing (CARB 2005). Odor impacts on residential areas and other sensitive receptors, such as hospitals, daycare centers, and schools, warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, work sites, and commercial areas.

Potential odor emitters during construction activities include diesel exhaust, asphalt paving, and architectural coatings. Construction-related activities near existing receptors would be temporary in nature, and construction activities would not result in nuisance odors that would violate SDAPCD Rule 51. Potential odor emitters during operations would include exhaust from vehicle, offroad equipment, and vessel activity. However, odor impacts would be limited to the circulation routes, parking areas, and areas immediately adjacent to marina operations, and would not exceed existing odor conditions. Although such brief exhaust odors may be considered unpleasant, they would not affect a substantial number of people, and any odor-related impacts would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not result in other emissions such as those leading to odors that would adversely affect a substantial number of people. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Impacts would be less than significant.

Section 4.3
Biological Resources

4.3.1 Overview

This section describes the existing conditions and applicable laws and regulations for biological resources and analyzes whether the proposed project would: (1) have a substantial adverse effect on candidate, sensitive, or special-status species; (2) have a substantial adverse effect on riparian habitat or other sensitive natural communities; (3) have a substantial adverse effect on federally protected wetlands through direct removal, filling, hydrological interruption, or other means; or (4) conflict with applicable local policies or ordinances protecting biological resources or with the provisions of an applicable adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, state, or federal habitat conservation plan.

Separate terrestrial biology and marine biology analyses were conducted for the proposed project. The terrestrial biology analysis included a desktop review and reconnaissance surveys within the Biological Survey Area (BSA). Vegetation mapping, a jurisdictional delineation, and wildlife surveys for the area west of Paradise Marsh were conducted in June 2016 and updated in 2019. In 2019, biologists conducted rare plant surveys and focused wildlife surveys for light-footed Ridgway's rail (*Rallus longirostris obsoletus*), Belding's Savannah sparrow (*Passerculus sandwichensis beldingi*), California least tern (*Sternula antillarum browni*), western snowy plover (*Charadrius alexandrinus nivosus*), and California brown pelican (*Pelecanus occidentalis californicus*) (habitat assessment only). The vegetation mapping and jurisdictional delineation within the BSA were updated in 2019. The methods and results of the terrestrial biology desktop review and survey are incorporated into this EIR section by reference. The desktop review included the *Biological Survey and Wetland Delineation Report of Area West of Paradise Marsh* (Dudek 2019; Appendix G). This report includes the results of biological surveys performed within the BSA, which includes all of Parcels B6 and B4, and adjacent areas north and south of those parcels along Paradise Marsh. In addition, Marine Taxonomic Services performed a marine biological survey to identify marine resources within the project site (Appendix G).

Table 4.3-1 summarizes significant impacts and mitigation measures discussed in detail in Section 4.3.4, *Project Impact Analysis*.

Table 4.3-1. Summary of Significant Biological Resources Impacts and Mitigation Measures

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-BIO-1: Impacts on Estuary Seablite During Construction (Bayshore Bikeway Component Route 1 or Route 3)	**MM-BIO-1:** Conduct Surveys and Monitoring for Estuary Seablite	Less than Significant	Inadvertent impacts on this species will be avoided by mapping and flagging any estuary seablite individuals occurring nearby.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-BIO-2: Negative Effects on Salt Marsh Endemic Special-Status Wildlife Habitat (Bayshore Bikeway Component Route 1)	**MM-BIO-2:** Consult with CDFW Regarding Belding's Savannah Sparrow	Less than Significant	Determining the need to seek an Incidental Take Permit through Section 2081 of the Fish and Game Code and implement species-specific conservation measures would avoid significant impacts on Belding's Savannah sparrow.
Impact-BIO-3: Impacts on Nesting Salt Marsh Avian Species (GB Capital Component, and Bayshore Bikeway Component Route 1 and Route 3)	**MM-BIO-3:** Avoid Marsh Endemic Avian Species During the Breeding Season	Less than Significant	No impacts on the nesting success of these species would occur if no construction activities occurred during their breeding season.
Impact-BIO-4: Impacts on Nesting Osprey (Pepper Park Expansion, and Roadway Configuration in Balanced Plan, and Pasha Rail Improvement Component)	**MM-BIO-4:** Avoid Impacts on Osprey During Nesting Season (January 15–June 15)	Less than Significant	Impacts on nesting ospreys would be avoided if no noise-generating activities are implemented during their nesting season.
Impact-BIO-5: Potential Disturbance or Destruction of Nests Protected by the Migratory Bird Treaty Act and CFGC (Pepper Park Expansion and Roadway Configuration in Balanced Plan, GB Capital Component, and Bayshore Bikeway Component Routes 1 and 3)	**MM-BIO-5**: Avoid Impacts on MBTA Avian Species, Including Non-Listed Avian Species	Less than Significant	Compliance with the Migratory Bird Treaty Act and California Fish and Game Code would avoid significant impacts on nesting birds.
Impact-BIO-6: Bat Roost Site Direct Impacts (GB Capital Component and Bayshore Bikeway Component Route 1 and Route 3)	**MM-BIO-6**: Conduct Surveys for Maternal Bat Roost Sites and Avoid Seasonal Impacts	Less than Significant	Surveying for maternal bat roost sites and avoiding any documented maternal bat roosts will ensure that construction activities will not affect adult or juvenile bats present in these colonies.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-BIO-7: Potential Disruption of Fishes, Green Sea Turtle, and Marine Mammals During Pile Driving Activities (GB Capital Component)	**MM-BIO-7:** Implement a Marine Mammal, Fish Injury, and Green Sea Turtle Monitoring Program During Pile Driving Activities	Less than Significant	Implementation of a District-approved green sea turtle monitoring program would avoid significant impacts on green sea turtles.
Impact-BIO-8: Potential Trampling of Sensitive Vegetation and Special-Status Plant Species, Potential Behavior Modification for Special-Status Wildlife or Declines in Habitat Quality Through Invasion of Exotic Plants (Bayshore Bikeway Component Route 1)	**MM-BIO-8:** Install Fencing Adjacent to Bayshore Bikeway Route 1	Less than Significant	Installation of fencing along the edge of Bayshore Bikeway Component Route 1 would avoid significant impacts on sensitive vegetation and special-status plant species or loss through invasion of exotic plants or trampling by humans.
Impact-BIO-9: Reflective Materials and Increased Bird Strikes (GB Capital Component and City Program – Development Component)	**MM-BIO-9:** Implement Bird Strike Reduction Measures on New Structures	Less than Significant	Implementation of specific design strategies from the American Bird Conservancy's *Bird-Friendly Building Design* (Sheppard and Phillips 2015) would ensure that birds in flight recognize structures from the open sky. Performance monitoring would also be required.
Impact-BIO-10: Disruption of Wildlife Behavior Due to Additional Lighting (GB Capital Component).	**MM-AES-8:** Limit Lighting (GB Capital Component).	Less than Significant	Implementation of lighting that has a correlated color temperature that emits less high frequency blue light, which is less likely to disrupt wildlife behaviors, would avoid disruption of wildlife behavior due to additional lighting.
Impact-BIO-11: Potential Loss of Diegan Coastal Sage Scrub During Project Construction (GB Capital Component and Bayshore Bikeway Component Route 1 and Route 3)	**MM-BIO-10**: Provide Compensatory Mitigation for Impacts on Coastal Sage Scrub	Less than Significant	Mitigation for impacts on Diegan coastal sage scrub would adequately address and compensate for loss of Diegan coastal sage scrub as a result of project construction.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-BIO-12: Potential Loss of Coastal Salt Marsh During Project Construction (Bayshore Bikeway Component Route 1)	**MM-BIO-11**: Provide Compensatory Mitigation for Impacts on Coastal Salt Marsh Habitat	Less than Significant	Mitigation for impacts on coastal salt marsh would adequately address and compensate for loss of Diegan coastal sage scrub as a result of project construction.
Impact-BIO-13: Potential Reduction in Eelgrass Habitat and Productivity During Construction (GB Capital Component)	**MM-BIO-12:** Develop an Eelgrass Mitigation and Monitoring Plan in Compliance with the California Eelgrass Mitigation Policy **MM-BIO-13:** Implement Overwater Coverage Mitigation Through the USACE Permitting Process in Consultation with CCC, NMFS, USFWS, RWQCB, and the District to Compensate for Loss of Open Water Habitat and Function	Less than Significant	Mitigation and monitoring and impact avoidance would adequately address and compensate for loss of eelgrass habitat as a result of project construction.
Impact-BIO-14: Potential Loss of Eelgrass Habitat Due to Overwater Coverage or Shading Impacts During Operations (GB Capital Component)	Implement **MM-BIO-12** and **MM-BIO-13**	Less than Significant	Mitigation and monitoring and impact avoidance would adequately address and compensate for loss of eelgrass habitat as a result of project operations.
Impact-BIO-15: Potential Loss of Eelgrass Habitat Due to Operation of Aquaculture Facilities (GB Capital Component)	Implement **MM-BIO-12** and **MM-BIO-13**	Less than Significant	Mitigation and monitoring and impact avoidance would adequately address and compensate for loss of eelgrass habitat as a result of operation of aquaculture facilities.

4.3.2 Existing Conditions

4.3.2.1 Vegetation Communities and Land Cover

The terrestrial environs associated with the landside components of the proposed project consist of urban/developed, disturbed, landscape/ornamental, and natural vegetation communities. Most of

the project area is within existing development consisting of paved areas, buildings, roadways, and landscaped ornamental vegetation. A portion of the landside of the GB Capital Component and the southern portion of Route 3, the Bayshore Bikeway Component, are located adjacent to the Paradise Marsh portion of the San Diego National Wildlife Refuge and consists of sensitive upland and wetland vegetation communities, jurisdictional waters, and wetlands, as shown in Figure 4.3-1. The BSA ranges in elevation from a few feet above sea level at the eastern edge of the BSA, along Paradise Marsh, to approximately 25 feet above sea level in the western portion of the BSA. The BSA includes the following sensitive vegetation communities: Diegan coastal sage scrub (including restored, disturbed, and Baccharis-dominated forms), southern coastal saltmarsh, open water, and saltpan/mudflats, as shown in Table 4.3-2. A full description of each terrestrial habitat types and land covers present within the BSA can be found in Appendix G.

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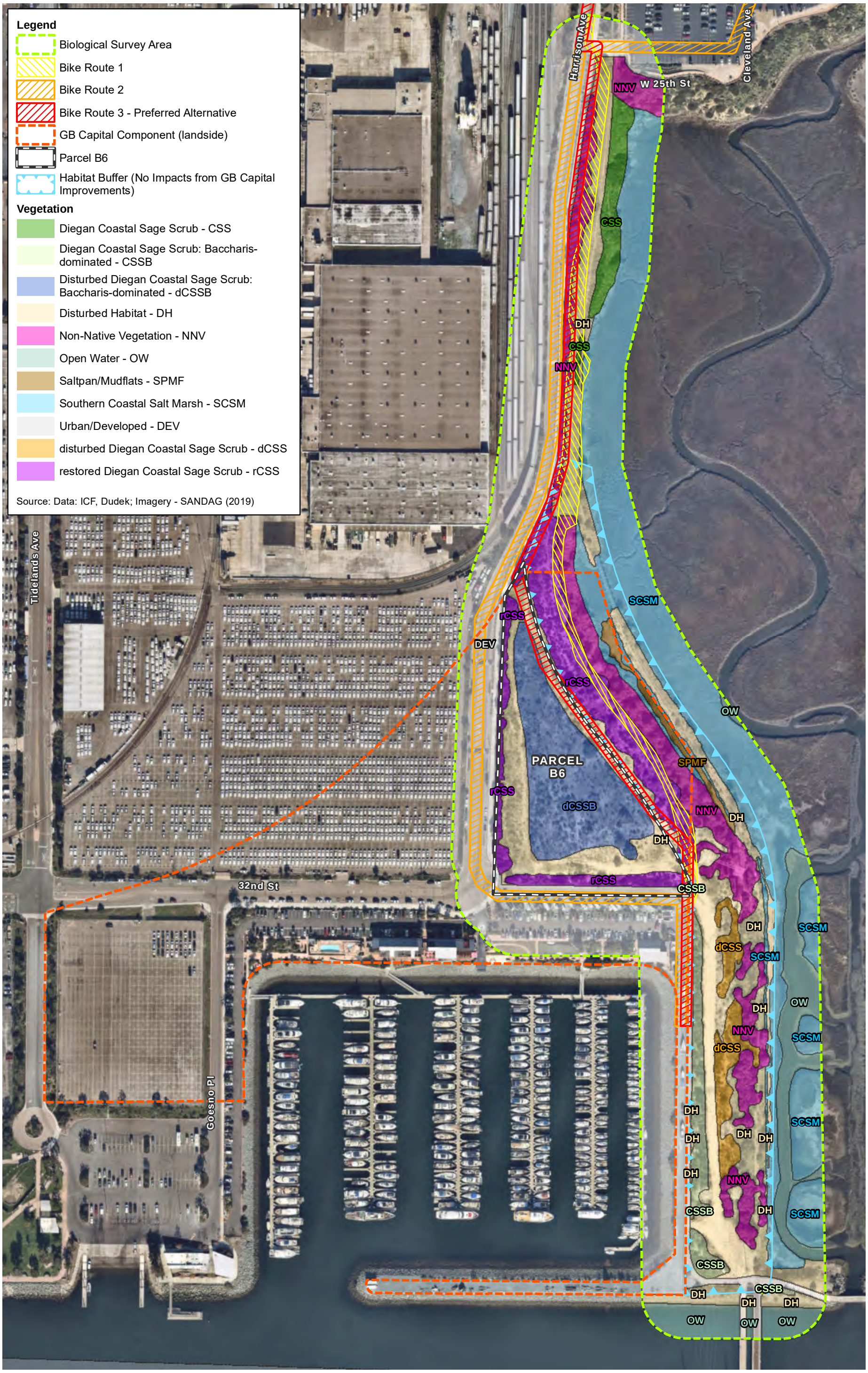

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Figure 4.3-1
Vegetation within Biological Survey Area
National City Bayfront Projects & Plan Amendments EIR

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Table 4.3-2. Vegetation Communities and Land Covers with the Biological Survey Area

Vegetation Community/Land Cover	Biological Survey Area Acreage
Upland Vegetation Communities	
Diegan coastal sage scrub	0.49
Disturbed Diegan coastal sage scrub	0.54
Restored Diegan coastal sage scrub	1.87
Diegan coastal sage scrub: baccharis-dominated	2.45
Subtotal	*5.35*
Wetlands	
Southern coastal salt marsh	6.13
Open water	1.62
Saltpan/mudflats	0.19
Subtotal	*7.93*
Disturbed or Developed Areas	
Non-native vegetation	2.54
Urban/developed	9.56
Disturbed habitat	5.54
Subtotal	*17.63*
Total	30.92

The biological environs associated with the waterside portion of the project site, within the GB Capital Component and adjacent to the Balanced Plan, currently includes an active marina with slips for private watercraft. Habitat types include unvegetated soft bottom, vegetated soft bottom (including eelgrass beds), docks and piles, shallow subtidal riprap, intertidal riprap, and open water. This combination of habitat types supports a wide array of marine life, including several marine mammals, green sea turtle (*Chelonia mydas*), fish, tunicates, crustaceans, and mollusks, all of which are common wildlife in San Diego Bay. In addition to providing habitat for a variety of marine species, there is also potential for foraging habitat in coastal saltmarsh areas for avian species, including Belding's Savannah sparrow and California least tern, both state-listed as endangered. Eelgrass and open water habitats are designated as Essential Fish Habitat (EFH) under the Magnuson–Stevens Fishery Management Conservation Act of 1976, as amended 1996 (Public Law 104-267) (MSFMCA). Eelgrass has further designation and protections as a Habitat Area of Particular Concern under the MSFMCA and the California Eelgrass Mitigation Policy through the National Marine Fisheries Service (NMFS). A full description of each marine habitat type present within the waterside component of the proposed project can be found in Appendix G.

4.3.2.2 Candidate, Sensitive, and Special-Status Species

Special-status species are those plants or animals that have been officially listed, proposed for listing, or are candidates for listing as threatened or endangered under provisions of the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA), as well as any animal species listed as a species of special concern or fully protected by the state and plants listed on the California Native Plant Society's (CNPS) Rare Plant Ranking System. Sensitive species also include species listed by local or regional jurisdictions.

Special-Status Plant Species

Terrestrial

The desktop analysis for sensitive plant species was performed for this project by reviewing the California Natural Diversity Database (CNDDB; CDFW 2019) and CNPS database (CNPS 2019). The CNDDB and CNPS record search for sensitive terrestrial plant species was conducted for the U.S. Geological Survey's (USGS) National City and seven surrounding 7.5-minute quadrangle maps.

On June 27 and September 23, 2016, Dudek biologists performed a reconnaissance-level field survey within the BSA that included a wildlife survey, vegetation mapping, and jurisdictional delineation. Although the reconnaissance survey did not focus on identification of special-status plants, because the survey occurred outside of the blooming period for most special-status species, three special-status plant species were observed during the reconnaissance survey: estuary seablite (*Suaeda esteroa*), beach goldenaster (*Heterotheca sessiliflora* ssp. s*essiliflora*), and salt marsh bird's beak (*Chloropyron maritimum* ssp. *maritimum*). A focused rare plant survey was conducted for the BSA in May 2019, which resulted in the detection of an additional occurrence of salt marsh bird's-beak (Figure 4.3-2). No other special-status plant species are considered to have a moderate to high potential to occur within the survey area. A full description of special-status plant species and their potential to occur within the project area is presented in Table 4.3-3.

On October 4, 2018, an ICF biologist performed a field survey of the City-owned parcels. These parcels have previously been graded and are disturbed heavily and do not provide suitable habitat for special-status plant species. Sparse nonnative and ornamental vegetation was observed and included Russian thistle (*Salsola tragus*), eucalyptus (*Eucalyptus* sp.), and brome grasses (*Bromus* spp.).

Legend

- Biological Survey Area
- Bike Route 1
- Bike Route 2
- Bike Route 3 - Preferred Alternative
- GB Capital Component (landside)
- Parcel B6
- Habitat Buffer (No Impacts from GB Capital Improvements)

Special-Status Plant Species

- Salt marsh bird's-beak *(Chloropyron maritimum ssp. maritimum)*
- Estuary seablite *(Suaeda esteroa)*
- Beach goldenaster *(Heterotheca sessiliflora ssp. sessiliflora)*

Source: Data: ICF, Dudek; Imagery - SANDAG (2019)

Harrison Ave
W 25th St
Cleveland Ave
Tidelands Ave
PARCEL B6
32nd St
Goesno Pl

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Figure 4.3-2
Special-Status Plants within Biological Survey Area
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Table 4.3-3. Special-Status Plant Species with Potential to Occur within the Project Site

Scientific Name/ Common Name	Status (Federal/ State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet amsl)	Potential to Occur	Observed on Site
Chloropyron maritimum ssp. *Maritimum* salt marsh bird's beak	FE/CE/1B.2	Coastal dunes, marshes, and swamps (coastal salt)/ annual herb (hemiparasitic)/ May–Oct/0–98	Observed in coastal salt marsh habitat along eastern edge of site.	Yes
Heterotheca sessiliflora ssp. *Sessiliflora* Beach goldenaster	None/None/ 1B.1	Chaparral (coastal), coastal dunes, coastal scrub/ perennial herb/ Mar–Dec/0–4,019	Observed in the disturbed coastal sage scrub onsite.	Yes
estuary seablite	None/None/ 1B.2	Marshes and swamps (coastal salt)/perennial herb/May–Oct (Jan)/0–16	Observed in the southern coastal salt marsh onsite.	Yes

Sources: List based on a search of all plant species found in the CNDDB and CNPS databases for the National City quadrangle and the seven surrounding U.S. Geological Service quadrangles conducted in September 2019.
amsl = above mean sea level

Sensitivity Status Key

Federal: Federal Endangered Species Act (ESA) Threatened or Endangered
State: California Endangered Species Act (CESA) Threatened or Endangered
Federal
FE – listed as endangered under the federal Endangered Species Act.
FT – listed as threatened under the federal Endangered Species Act.
State
SE – listed as endangered under the California Endangered Species Act.
CNPS: California Native Plant Society Rare Plant Rank (CRPR):
1B: Considered rare, threatened, or endangered in California and elsewhere
Decimal notations: .1 – Seriously endangered in California; and .2 – Fairly endangered in California

Marine

Marine biological surveys were performed in two phases. Initially, biologists from Marine Taxonomic Services performed a side-scan survey to identify and map eelgrass (*Zostera marina*) within the project site. Following the side-scan survey, scuba and transect surveys were performed throughout the waterside component of the project site to verify existing habitat, document species observed, and assess the potential for sensitive marine species to occur onsite. The results are summarized below, and a detailed explanation of survey methods and results is provided in Appendix G.

The waterside portion of the project site contains a number of habitat types, including docks and piles, unvegetated and vegetated soft bottom, intertidal and shallow subtidal riprap, and open water, as shown in Figure 4.3-3. *Eelgrass* (part of the vegetated soft-bottom habitat type) and *open water* are defined as EFH under the 1996 amendment to the MSFMCA (see Section 4.3.3, *Applicable Laws and Regulations*). Eelgrass beds were observed and documented as the predominant plant species occurring within the vegetated soft bottom habitat type. The eelgrass beds occur in Sweetwater Channel, with the majority of the bed located west of I-5 and east of the entrance to the Pier 32 Marina.

Eelgrass is a marine plant that provides predation refuge and serves as an important food source for a diverse group of marine species. Eelgrass beds reduce wave and current action, thus reducing erosion by stabilizing sediment. Eelgrass beds improve water quality by trapping suspended particulates and also generate oxygen for the marine environment during daylight hours. Although eelgrass is not a threatened or endangered species, it is considered EFH habitat and a Habitat Area of Particular Concern under the MSFMCA, the federal legislation that protects waters and substrates necessary for fish spawning, breeding, feeding, or growth to maturity. Eelgrass beds are also considered special aquatic sites under the 404(b)(1) guidelines of the federal Clean Water Act (CWA) (see Section 4.3.3).

Special-Status Wildlife Species

Terrestrial

The desktop analysis for sensitive wildlife species was performed by reviewing a CNDDB record search for special-status terrestrial wildlife species for the USGS's National City and seven surrounding 7.5-minute quadrangle maps. Biologists recorded 68 special-status wildlife species within the vicinity of the project site. A full description of these species and their potential to occur within the project site are presented in Table 4.3-4.

Between March 27 and July 3, 2019, Dudek biologists conducted focused wildlife surveys for light-footed Ridgway's rail, Belding's Savannah sparrow, California least tern, western snowy plover, and California brown pelican. Survey results concluded that light-footed Ridgway's rail, western snowy plover, and California least tern are not present within the project site. Although 2019 surveys for light-footed Ridgway's rail were negative, there is a moderate potential for this species to occur within the salt marsh habitats in the project area at some point in the future, due to the presence of suitable salt marsh habitat. It is also possible that light-foot Ridgway's rail occurs adjacent to the project area in Paradise Marsh.

Based on the habitat assessment, no suitable nesting habitat for California brown pelican was identified. Additionally, there are no sandy beaches and extremely limited and isolated tidal flats for nesting California least terns and extremely limited open water for foraging California least terns. There are no sandy beaches for nesting western snowy plovers and only limited and isolated tidal flats for foraging western snowy plovers onsite. California least terns and Western snowy plover nest and forage across the Sweetwater Channel south of the project site. California least terns also may use the open water habitats within the project area for foraging.

The following special-status wildlife species were observed during the site reconnaissance surveys performed between June 27 and September 23, 2016: osprey (*Pandion haliaetus*), wandering skipper (*Panoquina errans*), and Belding's Savannah sparrow. The following special-status wildlife species were observed during the site reconnaissance surveys performed between March 27 and July 3, 2019: Cooper's hawk (*Accipiter cooperii*), American peregrine falcon (*Falco peregrinus anatum*), osprey, wandering skipper, Belding's Savannah sparrow, American white pelican (*Pelecanus erythrorhynchos*), and double-crested cormorant (*Phalacrocorax auritus*) (Figure 4.3-4). The majority of these special-status species would not occur within the project site because it does not contain suitable habitat and is disturbed heavily from human visitation and frequent landscaping activities. Parcel B6 and the marsh areas directly east and north of those two parcels provide the only habitat potentially suitable for special-status species.

Although not observed, the following special-status species have a moderate potential to occur within the BSA: orange-throated whiptail (*Aspidoscelis hyperythra*), yellow rail (*Coturnicops noveboracensis),* northern harrier (*Circus hudsonius*), and Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*).

The majority of the landside portion of the project site is subject to recreational human visitation and routine landscape-maintenance activities. Many of the adult ornamental trees found adjacent to the City-owned parcels, Pier 32 Marina, and Pepper Park (see Chapter 3, *Project Description*) provide suitable nesting habitat for a number of common bird species protected under the Migratory Bird Treaty Act (MBTA), including, but not limited to, house finch (*Haemorhous mexicanus*), hooded oriole (*Icterus cucullatus*), red-tailed hawk (*Buteo jamaicensis*), and American crow (*Corvus brachyrhynchos*). In addition, osprey are nesting in the vicinity of Pepper Park and existing light poles adjacent to the roadway improvements associated with the Balanced Plan.

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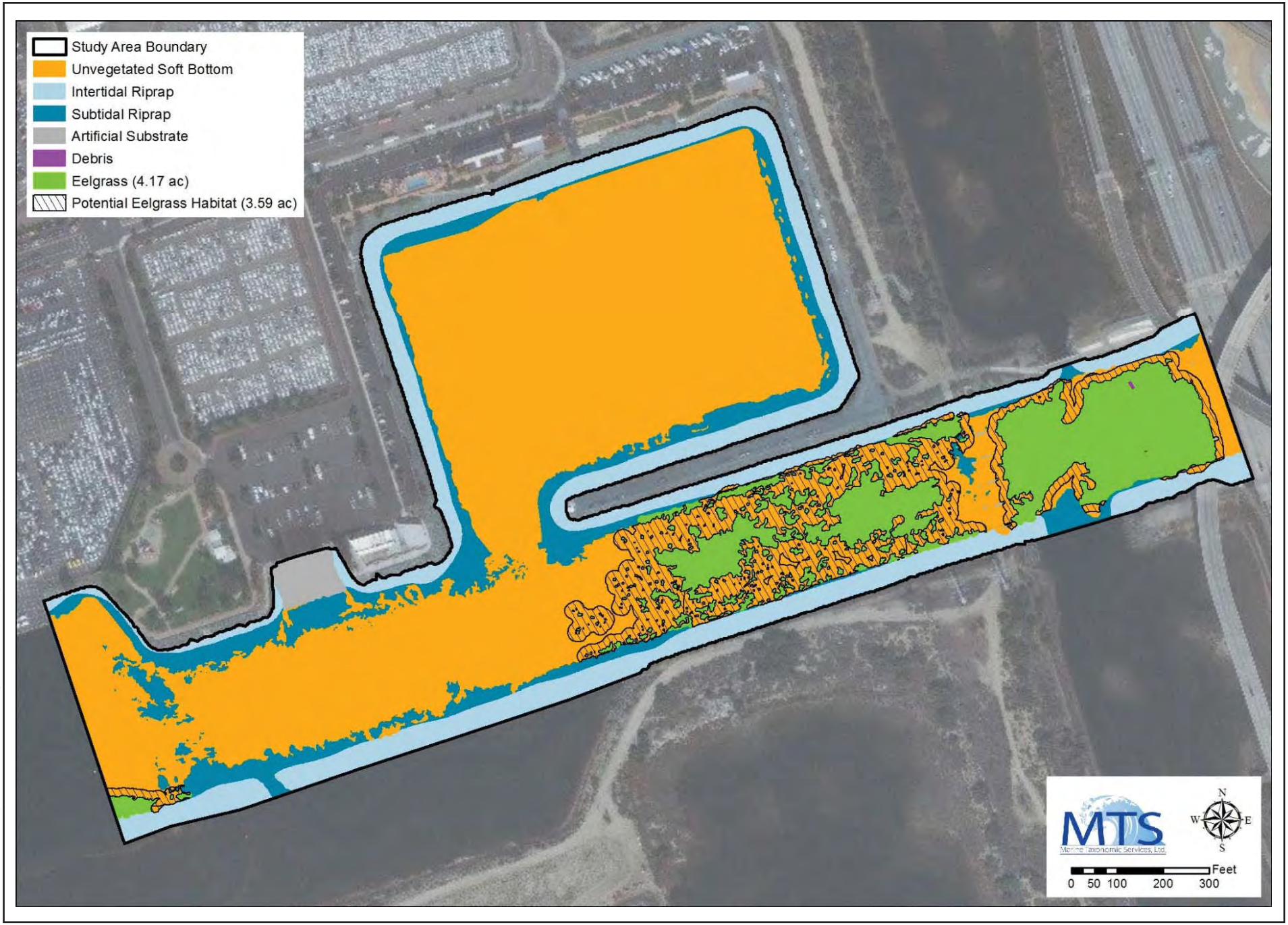

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Figure 4.3-3
Marine Habitat
National City Bayfront Projects & Plan Amendments EIR

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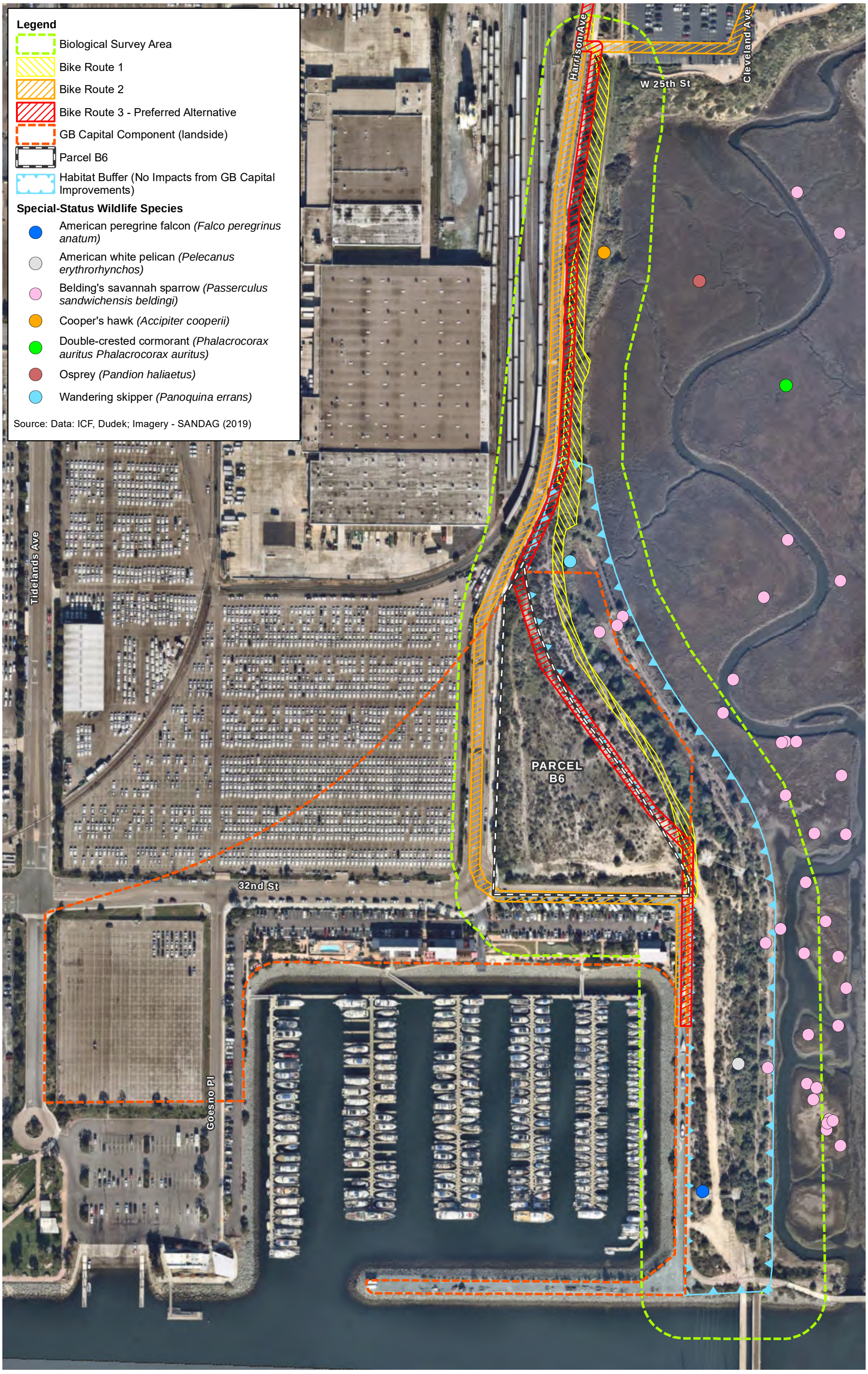

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Figure 4.3-4
Special-Status Wildlife within Biological Survey Area
National City Bayfront Projects & Plan Amendments EIR

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Table 4.3-4. Special-Status Wildlife Species Observed or with Potential to Occur within the Biological Survey Area

Common Name	Scientific Name	Status (Federal/State/Other)	Habitat Preferences/Requirements	Potential to Occur	Observed Onsite
Invertebrates					
wandering skipper	*Panoquina errans*	None/None/ IUCN NT	Found in saltmarsh.	Observed landing on suitable salt marsh habitat onsite. The nearest CNDDB record for this species is approximately 6 miles southwest of the project area along the coast.	Yes
Reptiles					
green turtle	*Chelonia mydas*	FT/None/IUCN EN	Occurs in shallow waters of lagoons, bays, estuaries, mangroves, eelgrass, and seaweed beds.	Moderate potential to occur; individuals are typically observed in south San Diego Bay; however, they may pass through the project area.	No
orange-throated whiptail	*Aspidoscelis hyperythra*	None/WL	Found in low-elevation coastal scrub, chaparral, and valley–foothill hardwood.	Moderate potential to occur, but was not observed during surveys; moderately suitable restored coastal sage scrub onsite, but limited in acreage. The nearest CNDDB record for this species is approximately 2 miles from the project site.	No
Birds					
American peregrine falcon	*Falco peregrinus anatum* (nesting)	FDL/SDL/FP	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, and croplands, especially where waterfowl are present.	Observed. No suitable nesting habitat found onsite, but may forage onsite within open marsh habitat onsite. The nearest CNDDB record for this species is approximately 6 miles northwest of the study area.	Yes

Common Name	Scientific Name	Status (Federal/State/Other)	Habitat Preferences/Requirements	Potential to Occur	Observed Onsite
American white pelican	*Pelecanus erythrorhynchos* (nesting colony)	None/SSC	Nests colonially on sandy, earthen, or rocky substrates on isolated islands in freshwater lakes; minimal disturbance from predators; access to foraging areas on inland marshes, lakes, or rivers; winters on shallow coastal bays, inlets, and estuaries.	Observed flying over the southern end of the study area. No suitable nesting habitat present.	Yes
Belding's Savannah sparrow	*Passerculus sandwichensis beldingi*	None/SE/None	Nests and forages in coastal saltmarsh dominated by pickleweed (Salicornia spp.).	Observed. Family group observed foraging in Paradise Marsh along the eastern edge of the site.	Yes
California least tern	*Sternula antillarum browni* (nesting colony)	FE/SE/FP	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats.	Not expected to breed. Species was not observed during focused surveys. No sandy beaches and extremely limited and isolated tidal flats for nesting. The nearest CNDDB record for this species is approximately 0.5 mile south in Sweetwater Marsh. Species has a moderate potential to forage over open-water habitats within project area. Species requires clean, open water for foraging.	No
Cooper's hawk	*Accipiter cooperii* (nesting)	None/None/WL	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water.	Observed flying over the site; not expected to nest due to lack of dense stands of woodlands.	Yes
double-crested cormorant	*Phalacrocorax auritus* (nesting colony)	None/None/WL	Nests in riparian trees near ponds, lakes, artificial impoundments, slow-moving rivers, lagoons, estuaries, and open coastlines; winter habitat includes lakes, rivers, and coastal areas.	Observed foraging just outside of the study area, but is not expected to nest due to lack of riparian trees.	Yes

Common Name	Scientific Name	Status (Federal/State/Other)	Habitat Preferences/Requirements	Potential to Occur	Observed Onsite
light-footed Ridgway's rail	*Rallus obsoletus levipes*	FE/SE/FP	Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation. Requires dense growth of either pickleweed or cordgrass for nesting or escape cover; feeds on mollusks and crustaceans.	Moderate potential to occur; species was not observed during focused surveys. Moderately suitable foraging habitat occurs within project area. The species is known to occur within nearby areas where suitable habitat is present. The nearest CNDDB record for this species is within marsh habitat approximately 1 mile south of the project area.	No
northern harrier	*Circus cyaneus* (nesting)	None/None/SSC	Nests in open wetlands (i.e., marshy meadows, wet lightly-grazed pastures, old fields, and freshwater and brackish marshes); also in drier habitats (i.e., grassland and grain fields); forages in grassland, scrubs, rangelands, emergent wetlands, and other open habitats.	Moderate potential to occur, but was not observed during surveys. Moderate potential for foraging activity. No habitat for nesting. The nearest CNDDB record for this species is approximately 7 miles south of the project area, within the Tijuana River Valley.	No
osprey	*Pandion haliaetus* (nesting)	None/None/WL	Requires large waters (e.g., lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast	Observed flying in transit over site. Osprey are nesting at the entrance to Pepper Park, lumber yard, and the AT&T cell phone tower at the southern end of the National Distribution Center. Osprey also use portions of the project area (e.g., open water areas) for foraging.	Yes
yellow rail	*Coturnicops noveboracensis*	BCC/SSC	Nesting requires wet marsh/sedge meadows or coastal marshes with wet soil and shallow, standing water.	Moderate potential to winter; the nearest CNDDB record for this species is approximately 5 miles north of the study area, within the vicinity of San Diego Bay. Not known to nest in San Diego.	No

Common Name	Scientific Name	Status (Federal/State/Other)	Habitat Preferences/Requirements	Potential to Occur	Observed Onsite
Southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	None/WL	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches.	Moderate potential to occur, but was not observed during surveys. Moderately suitable disturbed habitat and restored coastal sage scrub onsite, but limited in acreage. The nearest CNDDB record for this species is approximately 7 miles southeast of the study area.	No
western snowy plover	*Charadrius alexandrinus nivosus* (nesting)	FT/None/SSC	Found on coasts in nests on sandy marine and estuarine shores; in the interior, nests on sandy, barren or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds.	Not expected to occur; species was not observed during focused surveys. No sandy beaches for nesting onsite. Limited and isolated tidal flats for foraging. The nearest CNDDB record for this species is south of Sweetwater Channel at the D Street Fill, routinely foraging on the mud flats.	No
Mammals					
pallid bat	*Antrozous pallidus*	None/None/SSC	Occurs in grasslands, shrublands, woodlands, and forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in human-made structures and trees.	Not expected to occur. Moderately suitable open habitats for foraging. No suitable roosting areas identified onsite, but no bat roost surveys conducted. The nearest CNDDB record for this species is approximately 1.5 miles east of the project area.	No
spotted bat	*Euderma maculatum*	None/None/SSC	Occur in foothills, mountains, and desert regions of southern California, including arid deserts, grasslands, and mixed-conifer forests; roosts in rock crevices and cliffs; feeds over water and along washes.	Low potential to occur. Moderately suitable open habitats for foraging. No suitable roosting areas identified onsite, but no bat roost surveys conducted. The nearest CNDDB record for this species is approximately 19 miles northwest of the project area.	No

Common Name	Scientific Name	Status (Federal/State/Other)	Habitat Preferences/Requirements	Potential to Occur	Observed Onsite
western mastiff bat	*Eumops perotis californicus*	None/None/SSC	Occurs in chaparral, coastal and desert scrub, coniferous and deciduous forest, and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels.	Low potential to occur. Moderately suitable open habitats for foraging. No suitable roosting areas identified onsite, but no bat roost surveys conducted. The nearest CNDDB record for this species is approximately 4.5 miles south of the project area.	No

Sources: List based on a search of all wildlife found in the CNDDB database for the National City quadrangle and the seven surrounding U.S. Geological Service quadrangles conducted in September 2019.

Sensitivity Status Key

Federal: Federal Endangered Species Act (ESA) Threatened or Endangered
State: California Endangered Species Act (CESA) Threatened or Endangered
Other: Status of species according to other conservation organizations

Federal

FC – candidate for listing under federal Endangered Species Act
FDL – delisted from the federal Endangered Species Act
FE – listed as endangered under the federal Endangered Species Act
FT – listed as threatened under the federal Endangered Species Act

State

SDL – delisted from the California Endangered Species Act
ST – listed as threatened under the California Endangered Species Act
SE – listed as endangered under the California Endangered Species Act
Other – American Fisheries Society (AFS)
EN – Endangered
Other – Bureau of Land Management (BLM)
S – Sensitive
Other – Xerces Society (XERCES)
CI – Critically Imperiled
Other – California Department of Fish & Wildlife (CDFW)
FP – Fully Protected
SSC – Species of Special Concern
WL – Watch List
Other – The International Union for Conservation of Nature (IUCN)
EN – Endangered
NT – Near Threatened
VU – Vulnerable
DD – Data Deficient
Other – North American Bird Conservation Initiative (NABCI)
RWL – Red Watch List
Other – U.S. Forest Service (USFS)
S – Sensitive
Other – U.S. Fish & Wildlife Service (USFWS)
BCC – Birds of Conservation Concern
Other – Western Bat Working Group (WBWG)
M – Medium Priority
LM – Low-Medium Priority

Marine

Marine habitat types found within the project site are typical for bays and harbors in Southern California and, as such, contain species ubiquitous throughout San Diego Bay. Wildlife species observed include fish, polychaetes, anemones, mollusks, and crustaceans. A full explanation of species observed or with potential to occur at each habitat type is detailed in Appendix G.

The project site does not contain suitable habitat to support any protected, rare, threatened, or endangered marine species continually; however, a number of species, including harbor seal, California sea lion, common dolphin, coastal bottlenose dolphin, and green sea turtles, have potential to occur within the project site on a transient basis. Green sea turtles (federally listed as threatened) are the only sensitive marine species with potential to occur onsite. A population of resident Eastern Pacific green sea turtles is observed most commonly in southern San Diego Bay, foraging on eelgrass beds. Green sea turtles can be observed elsewhere within the Bay and offshore; however, this is not a common occurrence, given that this species preferentially occurs in southern San Diego Bay. Green sea turtles have been observed within Sweetwater Channel in the past.

Harbor seal (*Phoca vitulina*), California sea lion (*Zalophus californianus californianus*), common dolphin (*Delphinus* spp.), and coastal bottlenose dolphin (*Tursiops truncates*), all of which are protected under the Marine Mammal Protection Act (MMPA), have potential to occur onsite because they are common in northern San Diego Bay. Both harbor seal and California sea lion may forage opportunistically when in the Bay and may occur periodically in the project site; the California sea lion is observed most commonly in marina environments, either foraging or using docks and other structures as temporary haul-out sites. Common dolphin and coastal bottlenose dolphin generally transit northern San Diego Bay; however, these species are unlikely to occur in the project site because they are rarely observed within marina environments (Appendix G).

4.3.2.3 Jurisdictional Waters and Wetlands

A wetlands jurisdictional delineation was conducted in 2016 and updated in 2019. The 2015 revisions to the CWA were taken into account, but did not affect the results of the jurisdictional delineation. Historically, industrial development of the project area led to channelization of the area west of Paradise Marsh so that it drained directly to the San Diego Bay from the existing 32nd Street. Currently, Paradise Marsh is connected to Sweetwater Channel to the south, which is directly connected to San Diego Bay and the Pacific Ocean. Paradise Marsh receives inflows from Paradise Creek in the northeastern portion of Paradise Marsh.

There are approximately 7.94 acres of jurisdictional wetlands and waters within the project area (Figure 4.3-5). These wetlands and waters comprise approximately 6.13 acres of USACE-, RWQCB-, and CCC-jurisdictional wetlands[1] and approximately 1.81 acres of USACE-, RWQCB-, and CCC-jurisdictional non-wetland waters of the United States (WoUS), as shown in Table 4.3-5. Because the project area is solely influenced by tides, with no lakes or streambeds running through the project

[1] Areas must exhibit all three wetland parameters, as described in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008) and the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) in order to be considered a jurisdictional wetland. These include wetland hydrology, hydric soils, or hydrophytic vegetation. The Coastal Commission's Wetlands Briefing Background Information Handout 3 regulations (California Code of Regulations Title 14) establish a "one-parameter definition" that only requires evidence of one of these parameters to establish wetland conditions.

area, none of the wetlands or waters onsite are under CDFW jurisdiction. Although Paradise Creek is located east of the project area and flows into Sweetwater Channel, only a very small portion (0.03 acre of coastal salt marsh) is within the project area.

Hydrology, vegetation, and soils were assessed at seven data station locations throughout the study area to determine the presence or absence of wetlands field indicators. Four soil mapping units were recorded within the study area; however, only one soil mapping unit—tidal flats—is listed on the National Hydric Soils List for the San Diego County area (Appendix G).

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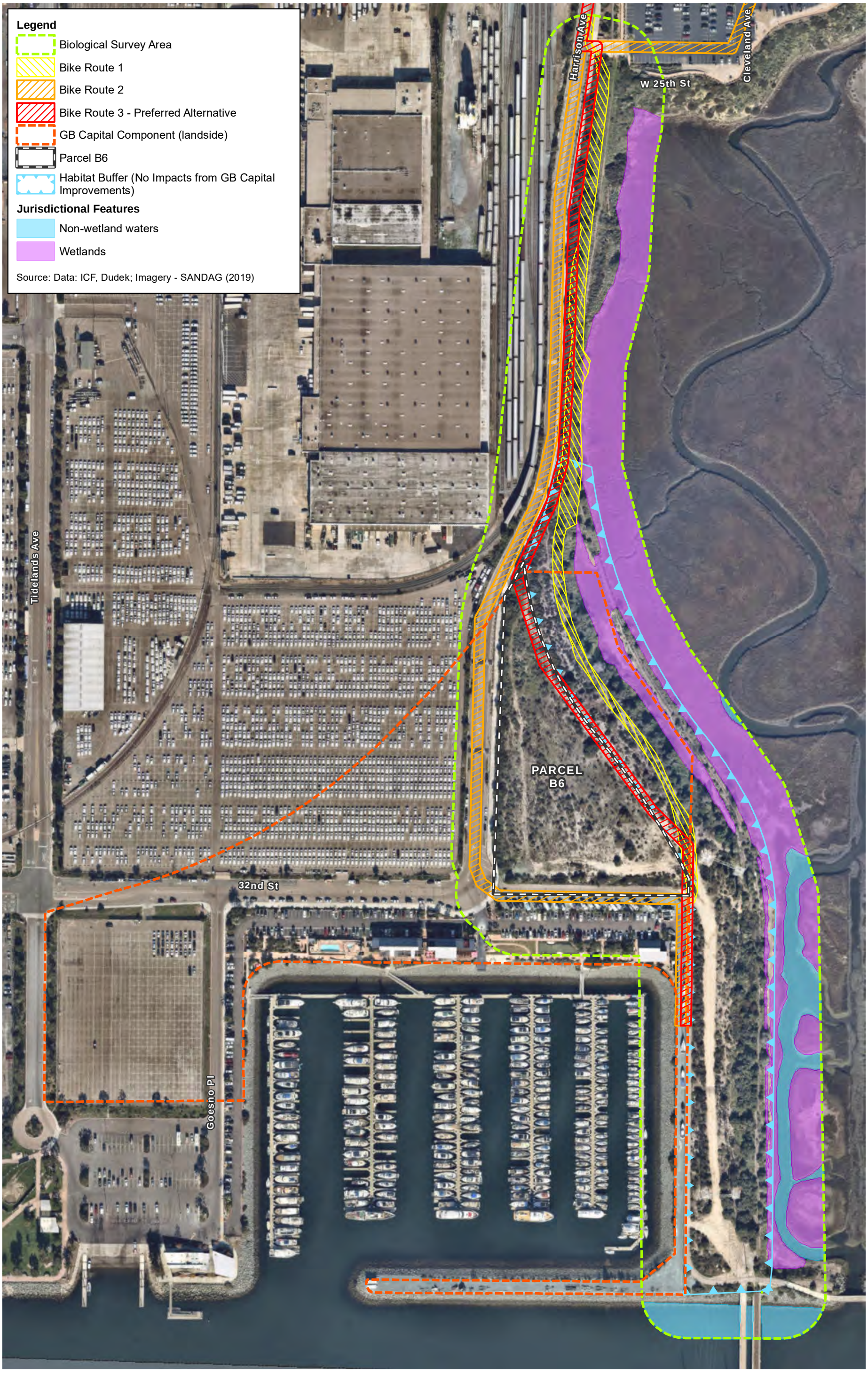

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Figure 4.3-5
Jurisdictional Features within Biological Survey Area
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Table 4.3-5. Jurisdictional Wetland Delineation Summary

Jurisdiction	Acreage[2]
USACE, RWQCB, CCC wetlands (southern coastal salt marsh)	6.13
USACE, RWQCB, CCC non-wetland WoUS (open water and saltpan/mudflats)	1.81
Total	7.94

[1]Acreage is within BSA.
CCC = California Coastal Commission; RWQCB = Regional Water Quality Control Board; USACE = United States Army Corps of Engineers; WoUS = waters of the United States

4.3.3 Applicable Laws and Regulations

4.3.3.1 Federal

Rivers and Harbors Act (Section 10)

Pursuant to Section 10 of the Rivers and Harbors Appropriation Act of 1899 (Rivers and Harbors Act), the U.S. Army Corps of Engineers (USACE) is authorized to regulate the construction of any structure in or over any navigable water if the structure or work affects the course, location, or condition of the water body. Per the Rivers and Harbors Act, construction and operational activities proposed within the marine portion of the project site require Section 10 compliance and coordination with USACE. Sweetwater Channel, where a portion of the project site is located, is considered a traditional navigable water.

Additionally, Sweetwater Channel is a Federal Flood Control Channel subject to 33 United States Code Section 408 of the Rivers and Harbors Act, which requires USACE authorization to use or alter Sweetwater Channel.

Clean Water Act

The Federal Water Pollution Control Act Amendments of 1972, commonly known as the CWA (33 United States Code 1251–1376), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The purpose of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Discharges into WoUS are regulated under CWA Section 404. WoUS include: (1) all navigable waters (including all waters subject to the ebb and flow of the tide); (2) all interstate waters and wetlands; (3) all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, or natural ponds; (4) all impoundments of waters mentioned above; (5) all tributaries to waters mentioned above; (6) the territorial seas; and (7) all wetlands adjacent to waters mentioned above. Important applicable sections of the CWA are discussed below.

- **Section 303** requires states to develop water quality standards for inland surface and ocean waters and submit them to the U.S. Environmental Protection Agency (EPA) for approval. Under Section 303(d), the states are required to list waters that do not meet water quality standards and develop action plans, called total maximum daily loads, to improve water quality.

- **Section 304** provides for water quality standards, criteria, and guidelines.
- **Section 401** requires a project proponent for any federal permit that proposes an activity that may result in a discharge to WoUS to obtain certification from the state where the discharge would comply with other provisions of the CWA. Certification is provided by the respective Regional Water Quality Control Board (RWQCB). A Section 401 certification from the San Diego RWQCB would be required for the proposed project if a Section 404 permit and Rivers and Harbor Act (Section 10) permit are required.
- **Section 402** establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredge or fill material) into WoUS. RWQCB administers the NPDES program. Conformance with Section 402 typically is addressed in conjunction with water quality certification under Section 401. All construction activities must be consistent with CWA Section 402 and avoid significant water quality-related impacts. See Section 4.8, *Hydrology and Water Quality*, for an analysis related to the proposed project's impacts on water quality.
- **Section 404** provides for USACE issuance of dredge/fill permits. Permits typically include conditions to minimize impacts on water quality. Common conditions include: (1) USACE review and approval of sediment quality analysis before dredging; (2) a detailed pre- and postconstruction monitoring plan that includes disposal site monitoring; and (3) requiring compensation for loss of WoUS. The project does not propose any fill or dredge.

In 2015, EPA and USACE published a final rule defining the scope of waters protected under the CWA, publishing the rule in response to various Supreme Court cases. The updated rule does not establish any regulatory requirements, but rather is intended to increase the predictability and consistency of the CWA program by clarifying the scope of WoUS protected under the CWA. Under the 2015 rule, the scope of jurisdiction is narrower compared to previous regulation. Specifically, the rule places qualifiers on some existing categories, including tributaries. In addition, Congress has exempted certain discharges from CWA Section 404 permitting requirements. The agencies have also adopted streamlined regulatory requirements to make permitting simpler and more expedient (80 *Federal Register* 37053).

Endangered Species Act of 1973

Species listed as *endangered* or *threatened* by the U.S. Fish and Wildlife Service (USFWS) are protected under ESA Section 9, which forbids any person to take an endangered or threatened species. *Take* is defined in Section 3 of the act as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The U.S. Supreme Court ruled in 1995 that the term *harm* includes destruction or modification of habitat. Sections 7 and 10 of the act may authorize *incidental take* for an otherwise lawful activity (e.g., a development project) if it is determined that the activity would not jeopardize survival or recovery of the species. Section 7 applies to projects where a federally listed species is present, and there is a federal nexus, such as where a federal CWA Section 404 permit (e.g., impacts on WoUS) is required. Section 10 applies when a federally listed species is present, but no federal nexus is present. Salt marsh bird's beak is a federally listed endangered species that was mapped within the project area in areas identified as coastal salt marsh along the eastern edge of the project site.

Magnuson-Stevens Fishery Management Conservation Act of 1976, as amended 1996 (Public Law 104–267)

Federal agencies must consult with NMFS on actions that may adversely affect EFH, which is defined as those "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." NMFS encourages streamlining the consultation process using review procedures under the National Environmental Policy Act, Fish and Wildlife Coordination Act, the CWA, or ESA, provided that documents meet requirements for EFH assessments under Section 600.920(g). EFH assessments must include (1) a description of the proposed action; (2) an analysis of effects, including cumulative effects; (3) the federal agency's views regarding the effects of the action on EFH; and (4) proposed mitigation, if applicable.

NMFS has provided the California Eelgrass Mitigation Policy (CEMP) to other state and federal agencies, including the California Department of Fish and Wildlife (CDFW), as guidance for handling project-related impacts on eelgrass habitat.

Marine Mammal Protection Act of 1972

The MMPA prohibits, with certain exceptions, the take of marine mammals in U.S. waters and by U.S. citizens on the high seas and the importation of marine mammals and marine mammal products into the United States. Congress passed the MMPA based on the following findings and policies: (1) some marine mammal species or stocks may be in danger of extinction or depletion as a result of human activities; (2) these species of stocks must not be permitted to fall below their optimum sustainable population level (depleted); (3) measures should be taken to replenish these species or stocks; (4) there is inadequate knowledge of the ecology and population dynamics; and (5) marine mammals have proven to be resources of great international significance.

The MMPA was amended substantially in 1994 to provide for: (1) certain exceptions to the take prohibitions, such as for Alaska Native subsistence, and for permits and authorizations for scientific research; (2) a program to authorize and control the taking of marine mammals incidental to commercial fishing operations; (3) preparation of stock assessments for all marine mammal stocks in waters under U.S. jurisdiction; and (4) studies of pinniped–fishery interactions. NMFS and USFWS administer the MMPA. The proposed project must be analyzed to ensure that marine mammals protected under the MMPA would not be harassed or injured as a result of project activities in or adjacent to Sweetwater Channel. Any project activities that may result in Level A or B harassment, injury, or mortality would require NMFS and USFWS consultation under the MMPA.

Migratory Bird Treaty Act

The MBTA was enacted in 1918 to prohibit the killing or transport of native migratory birds, or any part, nest, or egg of any such bird, unless allowed by another regulation adopted in accordance with the MBTA. A list of migratory bird species that are protected by the MBTA is maintained by USFWS, which regulates most aspects of the taking, possession, transportation, sale, purchase, barter, exportation, and importation of migratory birds. Under the MBTA, *take* means to kill, directly harm, or destroy individuals, eggs, or nests or to otherwise cause failure of an ongoing nesting effort. Permits are available under the MBTA through USFWS, and authorization for potential take under the MBTA is addressed as part of the ESA Section 7 consultation process. The proposed project must be analyzed to ensure consistency with the MBTA, including avoidance of take of nesting birds, their eggs, or activities that may cause nest failure. This applies for MBTA-protected terrestrial and

marine migratory species that the proposed project may affect directly or indirectly. Any potential take must be either permitted through consultation with USFWS or avoided and minimized through mitigation measures.

National Marine Fisheries Service

The NMFS is an office of the National Oceanic Atmospheric Administration and responsible for the stewardship of the nation's ocean resources and their habitats. NMFS developed the California Eelgrass Mitigation Policy (CEMP) in order to establish and support a goal of protecting eelgrass and its habitat functions (NMFS 2014). The CEMP includes guidance on defining eelgrass habitat and surveying, mapping, assessing impacts, avoiding, and minimizing impacts on eelgrass, and mitigation options. *Avoidance and minimization measures* included within the CEMP relate to turbidity, shading, circulation, and nutrient and sediment loading impacts. *Mitigation options* include comprehensive management plans, in-kind mitigation, mitigation banks and in-lieu-fee programs, and out-of-kind mitigation.

NMFS has provided this policy to other state and federal agencies, including the California Department of Fish and Wildlife (CDFW), as guidance for handling project-related impacts on eelgrass habitat.

4.3.3.2 State

California Coastal Act of 1976

The California Coastal Act of 1976 (CCA) recognizes California ports, harbors, and coastline beaches as primary economic and coastal resources and essential elements of the national maritime industry. Decisions to undertake specific development projects, where feasible, are to be based on consideration of alternative locations and designs in order to minimize any adverse environmental impacts. The California Coastal Commission (CCC) implements the CCA. The proposed project would require an amendment to the PMP and an appealable coastal development permit (which the District would issue) for activities within the coastal zone that occur within the immediate shoreline (i.e., tidelands, submerged lands, and public trust lands). The proposed project would also require an amendment to the City's Local Coastal Plan, General Plan, LUC, and the HDSAP.

California Endangered Species Act

CESA establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For projects that affect both a state- and federally listed species, compliance with ESA would satisfy CESA if CDFW determines that the federal incidental take authorization is consistent with the CESA under California Fish and Game Code (CFGC) Section 2080.1. For projects that would result in a take of a state-only listed species, the project proponent must apply for a take permit under Section 2081(b).

California Fish and Game Code

The CFGC establishes the Fish and Game Commission, as authorized by the State of California Constitution, Article IV, Section 20. The Fish and Game Commission is responsible, under the

provisions of Sections 200–221, for regulating the take of fish and game, not including the taking, processing, or use of fish, mollusks, crustaceans, kelp, or other aquatic plants for commercial purposes. However, the Fish and Game Commission does regulate aspects of commercial fishing, including fish reduction, shellfish cultivation, take of herring, lobster, sea urchins, and abalone, kelp leases, leases of state water bottoms for oyster allotments, aquaculture operations, and other activities. These resource-protection responsibilities involve the setting of seasons, bag and size limits, and methods and areas of take and prescribe the terms and conditions under which CDFW may issue or revoke permits or licenses. The Fish and Game Commission also oversees the establishment of wildlife areas and ecological reserves and regulates their use and sets policy for CDFW.

CFGC Sections 3503, 3503.5, 3505, 3800, and 3801.6 protect all native birds, birds of prey, and nongame birds, including their eggs and nests, that are not already listed as fully protected and that occur naturally within the state. Section 3503 specifically states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, and Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, falcons), including their nests or eggs.

As the lead state agency that manages native fish, wildlife, plant species, and natural communities for their ecological value and their benefits to people, CDFW oversees the management of marine species through several programs, some in coordination with NMFS and other agencies.

As discussed in Section 4.3.3.1, *Federal*, NMFS and CDFW administers the CEMP, which would address the effects of the proposed project on any surrounding eelgrass beds and include any necessary compensatory mitigation.

Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act is the California equivalent of the federal CWA. It provides for statewide coordination of water quality regulations through the establishment of the State Water Resources Control Board and nine separate RWQCBs that oversee water quality on a day-to-day basis at the regional and local level. The RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the state" (Water Code Section 13260(a)), pursuant to provisions of the Porter–Cologne Water Quality Control Act. Waters of the state (WoS) are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code Section 13050 (e)).

RWQCB also regulates WoS under Section 401 of the CWA. A Water Quality Certification or a waiver must be obtained from the RWQCB if an action would potentially result in any impacts on jurisdictional WoS.

The proposed project must be analyzed to determine if it would result in any impacts on WoS, and any potential impacts would require an application for an RWQCB Water Quality Certification (or waiver), consultation with the RWQCB, and compensatory mitigation.

Nonindigenous Aquatic Nuisance Prevention and Control Act, as Amended by the National Invasive Species Act (Ballast Water Discharge Regulations)

The California Marine Invasive Species Act of 2003 renewed and expanded the Ballast Water Management for Control of Nonindigenous Species Act of 1999 to address the threats posed by the

introduction of nonindigenous species. The law charged the California State Lands Commission with oversight and administration of the state's program to prevent or minimize the release of nonindigenous species from vessels that are 300 gross registered tons and above. To advance this goal, the commission's Marine Invasive Species Program uses an inclusive, multifaceted approach to (1) develop sound, science-based policies in consultation with technical experts and stakeholders; (2) track and analyze ballast water and vessel biofouling management practices of the California commercial fleet; (4) enforce laws and regulations to prevent introductions; and (5) facilitate outreach to promote information exchange among scientists, legislators, regulators, and other stakeholders.

Both the U.S. Coast Guard (Ballast Water Management) and EPA (Vessel General Permit) regulate ballast water discharges, and both agencies currently require ballast water exchange for most vessels operating in U.S. waters. In addition, California requires ballast water exchange on coastwise voyages (e.g., between Los Angeles and Oakland). However, at present, the discharge standards in California are more stringent than federal regulations. In accordance with governing statutes and regulations, vessels have four options to comply with California's performance standards: (1) retention of all ballast water on board; (2) use of potable water as an alternative ballast-water management method; (3) discharge to a shore-based ballast-water reception and treatment facility; and (4) treatment of all ballast prior to discharge by a shipboard ballast-water treatment system. Performance standards for ballast-water discharge are: (1) no detectable living organisms greater than 50 microns in minimum dimension; (2) fewer than 0.01 living organism per milliliter of organisms 10–50 microns in minimum dimension; and (3) multiple standards for bacteria and viruses (CSLC 2017).

4.3.3.3 Local

San Diego Unified Port District Port Master Plan

Through implementation of the PMP, the District maintains authority over tidelands and submerged lands conveyed in trust to the District by the California legislature. Any amendments to the PMP are first reviewed and adopted by the Board of Port Commissioners, and then certified by the CCC, thereby allowing the District to issue coastal development permits for projects within its jurisdiction. The PMP provides for protection of biological resources and states that the District will remain sensitive to the needs of, and will cooperate with, other communities and agencies in San Diego Bay and tideland development.

San Diego Bay Integrated Natural Resources Management Plan

The District and the U.S. Navy jointly implement the Integrated Natural Resources Management Plan (INRMP). This long-term strategy document provides direction and planning guidance for good stewardship of the natural resources within San Diego Bay. The INRMP includes objectives and policy recommendations to guide planning, management, conservation, restoration, and enhancement of the San Diego Bay ecosystem.

National City Local Coastal Program

Pursuant to the 1976 CCA, National City prepared a local coastal program (LCP), the most recent amendment of which the City adopted and the CCC certified in 1997. The LCP covers only the portion of the city that falls within the coastal zone, including all of the area west of I-5, and a small

area east of I-5 and south of 30th Street. The LCP includes a land use plan, as well as policies related to the use of the coastal zone, including public access, recreation, marsh preservation, visual resources, industrial development, and environmental hazards. The following regulations for development in the coastal zone are supplementary to those referenced in other sections of the LCP implementation document and will be addressed as conditions for approval of a coastal development permit for any portions of the project that are located within the City's jurisdiction. They are required to implement the policies of the Land Use Plan.

The LCP's Marshland Preservation Policy 4 would apply to this project. The policy states that "New development, including roadways, adjacent to wetlands, shall provide physical barriers, such as fencing or landscaping with noninvasive species, to discourage intrusion of pedestrians, vehicles or domestic animals into the marsh."

National City General Plan

Part Three of the *National City General Plan*, the *Open Space and Agriculture Element*, includes goals and policies intended to protect biological resources in the City. The goal and related policies pertinent to biological resources are presented below.

- **Goal OS-1:** Open space areas that enhance the natural and visual character of the community and protect sensitive resources.
  - **Policy OS-1.1:** Protect and conserve the landforms and open spaces that define the city's urban form, provide public views/vistas, serve as core biological areas and wildlife linkages, or are wetland habitats.
  - **Policy OS-1.2:** Minimize or avoid impacts to environmentally sensitive lands by minimizing construction of infrastructure or access roads into these areas.
  - **Policy OS-1.4:** Apply appropriate land use and development regulations to limit development of open spaces such as floodplains, sensitive biological areas including wetlands, steep hillsides, canyons, and coastal lands.
- **Goal OS-2:** The preservation of sensitive habitat areas, including steep slopes, drainages, and wetlands for their biological value and functioning of natural systems.
  - **Policy OS-2.1:** Preserve significant habitat and environmentally sensitive areas, including hillsides, streams, and marshes.
  - **Policy OS-2.2:** Preserve the ecological integrity of creek corridors, canals, and drainage ditches that support riparian resources by working with California Department of Fish and Game to establish a plant palette that is satisfactory and providing for up to 100-foot buffers that protect against development impacts but allow for existing uses and limited future recreational uses. preserving native plants and, to the extent feasible, removing invasive non-native plants.
  - **Policy OS-2.6:** Work with the City of Chula Vista and other responsible agencies to maintain and enhance the Sweetwater River corridor and other key water bodies as an environmental and recreational resource for the community.
  - **Policy OS-2.7:** Ensure that potential impacts to biological resources are carefully evaluated prior to approval of development projects.
  - **Policy OS**-2.8: Ensure that development is consistent with all federal, State and regional regulations for habitat and species protection.

4.3.4 Project Impact Analysis

This section addresses direct and indirect impacts on biological resources that would result from implementation of the proposed project. The impact analysis is focused on the project components that occur in and adjacent to native and naturalized terrestrial habitats and in Sweetwater Channel. These project components fall within the BSA and only include the GB Capital Component (both landside and waterside components) and Routes 1 and 3 of the Bayshore Bikeway Component. All other project components to the north and west of these areas, as discussed in Chapter 3, *Project Description*, would occur within developed areas. As a result, these other project components (e.g., City Program – Development Component) would have minimal to no impacts on biological resources and are therefore only discussed below when a potential impact on biological resources (e.g., migratory birds) may occur.

The project components that are analyzed in detail in this section are as follows.

- **Balanced Plan (Habitat Buffer)**. As described in Section 3.4.1.2, *Public Access Improvements*, in Chapter 3, *Project Description*, the proposed project would include implementation of the Balanced Plan. One of the features of the Balanced Plan would be the inclusion of a habitat buffer from the delineated wetlands west of the Wildlife Refuge (Paradise Marsh) and a building setback from the western edge of the Wildlife Refuge (see Figure 3-6). This habitat buffer is also required in the City's HDSAP. The vegetation communities in and adjacent to this habitat buffer are shown in Figure 4.3-1. Landscaping may be incorporated into the habitat buffer area, but would be focused on noninvasive and drought-tolerant species. A minimum 200-foot building setback from the eastern edge of the GB Capital Component would also be maintained. Vehicular parking and low-impact, non-motorized uses, such as public access trails and bike paths, could be located between the habitat buffer and building setback.

- **GB Capital Component (Landside)**: The impact analysis on biological resources from the GB Capital Component is focused on the improvements GB Capital proposed for Parcel B6, which is located on the northeastern portion of the larger GB Capital Component area. Development of the GB Capital Component would include either an RV Park or four-story building and associated parking areas on Parcel B6. The GB Capital Component would incorporate native plantings and noninvasive ornamental plants—drought-tolerant, low-maintenance plants that are well adapted to bayfront conditions throughout the project area, including within Parcel B6. Hardscape materials, consistent with the character of the existing marina, would include permeable paving (i.e., porous asphalt, concrete pavers, and decomposed granite). Low-level lighting that is sensitive to the adjacent refuge and wetlands is proposed.

- **GB Capital Component (Waterside)**: Specific project elements that have the highest potential to affect marine biological resources include increased boat docking facilities within the existing Pier 32 Marina, additional boat docking facilities within Sweetwater Channel, and aquaculture facilities within Sweetwater Channel. This analysis area is shown in Figure 4.3-3.

- **Bayshore Bikeway Component – Route 3 Alignment:** Route 3 would be located primarily within disturbed areas on the eastern edge of the proposed GB Capital Component and within the western side of the proposed Habitat Buffer and would result in minimal impacts on special-status species and sensitive vegetation communities (i.e., Diegan coastal sage scrub), as described in further detail below. The southern portion of this route is consistent with the Bayshore Bikeway location identified in the PMP and the City's HDSAP.

- **Bayshore Bikeway Component – Route 1 Alignment:** Route 1 would be located at the far eastern edge of the Habitat Buffer, directly adjacent to and above Paradise Marsh. Impacts from this route would occur partially within disturbed areas and native habitats, including coastal sage scrub and coastal salt marsh habitat, as described in more detail below.

4.3.4.1 Methodology

The following definitions of direct and indirect impacts are used throughout this section.

- *Direct impacts* were quantified by overlaying the proposed impact limits (i.e., extent of vegetation clearing and grading) on the biological resources map (i.e., vegetation map) of the site (Figure 4.3-1). For purposes of this assessment, biological resources within the areas to be cleared are considered *directly affected*.
- *Indirect impacts* result primarily from adverse "edge effects" and may be short-term in nature, related to temporary construction impacts, or long-term in nature, associated with development in proximity to biological resources within natural open space. For the proposed project, it is assumed that the potential indirect impacts resulting from construction activities include dust, noise, and general human presence that may temporarily disrupt species and habitat vitality. Construction-related soil erosion and runoff would be subject to Best Management Practices (BMPs), identified in the District's JRMP and the City's JRMP, and requirements in Section 4.8, *Hydrology and Water Quality,* that address erosion and runoff, including the federal CWA, NPDES Phase I Municipal Separate Storm Sewer System (MS4) Permit, and preparation of a Stormwater Pollution Prevention Plan (SWPPP).

A search of CDFW's CNPS database and the CNDDB was conducted in June 2016 and September 2019, respectively, to determine the potential for sensitive plant and wildlife species to occur within the vicinity of the project site. The search included a nine-quad search centered around the USGS's National City, California 7.5-minute quadrangle map (CNPS 2019). A total of 150 sensitive plant species and 68 sensitive wildlife species were reviewed for their potential to occur within the project site.

On June 27 and September 23, 2016, Dudek biologists conducted a reconnaissance-level survey of the undeveloped lands located west of Paradise Marsh. The survey was conducted to identify suitable habitat for sensitive plants and wildlife and the potential for such species to occur onsite. The survey was also performed to identify if there was any potential nesting habitat for bird species. The southern portion of the project site was surveyed in September 2016. In response to a CDFW Notice of Preparation Scoping Comment Letter for the proposed project, in 2019 (between March 27 and July 3, 2019), Dudek conducted rare plant surveys and focused wildlife surveys for light-footed Ridgway's rail, Belding's Savannah sparrow, California least tern, western snowy plover, and California brown pelican (habitat assessment only). Specific dates and times that surveys were conducted are shown in Table 4.3-6.

Table 4.3-6. Schedule of Surveys

Date	Hours	Focus	Conditions (temp/% cloud cover/wind speed)
6/27/16	0650–0850	Wildlife survey	66–73°F, 20% – clear, 1–3 mph
6/27/16	1045–1440	Vegetation mapping, botanical survey, and jurisdictional delineation	73–75°F, 0–90%, 0–2 mph
9/23/16	0655–1005	Wildlife survey	61–75°F, 0%, 1–5 mph
9/23/16	0820–1215	Vegetation mapping, botanical survey, and jurisdictional delineation	63–76°F, 0%, 2–3 mph
3/27/19	1000–1255	Belding's Savannah sparrow	64–65°F, 70–80%, 1–7 mph
4/1/19	0835–1120	Belding's Savannah sparrow	66–78°F, 10–15%, 0–4 mph
4/19/19	0620–1116	Belding's Savannah sparrow	54–69°F, 20–80%, 1–3 mph
4/26/19	0716–0916	Belding's Savannah sparrow	63–70°F, 90–100%, 0 mph
4/30/19	0600–1000	Belding's Savannah sparrow	58°F, 100%, 0–3 mph
4/7/19	1530–1855	LFRR	61–58°F, 100% – overcast, 4–7 mph
4/17/19	0630–0940	LFRR, LETE, WSP, BRPE (habitat assessment)	57–62°F, 50% – overcast, 3-5 mph
4/26/19	1545–1820	LFRR	65–61°F, 10% – overcast, 5–7 mph
5/3/19	1615–1920	LFRR	66–62°F, 100% – overcast, 3–5 mph
5/9/19	0605–0920	LFRR, LETE, WSP	64–69°F, 50% – overcast, 5–7 mph
5/14/19	1630–1950	LFRR	67–63°F, 100% – overcast, 5–7 mph
5/22/19	1020–1419	Update vegetation mapping and jurisdictional delineation; rare plant survey	64–68°F, 80%, 2–7 mph
6/28/19	0645-0915	LETE, WSP	65–69°F, 100% – overcast, 5–7 mph
7/3/19	0620-0910	LETE, WSP	67–72°F, 0% – overcast, 3–5 mph

Source: Appendix G.
Notes: BRPE = California brown pelican; °F = degrees Fahrenheit; LETE = California least tern; LFRR = light-footed Ridgway's rail; mph = miles per hour; WSP = Western snowy plover

On October 4, 2018, an ICF biologist conducted a reconnaissance-level survey of the City-owned parcels on the northern end of the project site and the existing developed areas on the southern portion of the project. The survey was performed to confirm the lack of sensitive vegetation communities within the City-owned parcels and identify the potential nesting habitat for bird species.

Marine biological surveys were performed in a two-step process on October 8 and 12, 2018. Initially, biologists from Marine Taxonomic Services performed a side-scan survey to identify and map all subtidal habitat types within the project area. Following the side-scan survey, a scuba survey was performed throughout the project area to verify existing habitat, document species observed, and assess the potential for sensitive marine species to occur onsite. Side-scan surveys were performed to map the presence of eelgrass. Eelgrass beds were observed and documented as the predominant plant species occurring within the vegetated soft-bottom habitat type. Subsequent plant and algae species observed while surveying all habitat types were identified to the highest level possible in the field.

To determine the potential for noise from pile driving to affect sensitive species, ICF performed an analysis of potential noise levels (Appendix G). The analysis used the compendium of pile-driving noise data from Buchler et al. (2015) to establish potential in-water noise levels at the source of pile driving. The potential for generated noise to cause Level A (i.e., injury) and Level B (i.e., behavioral) Harassment of marine mammals due to in-water noise was then evaluated by calculating isopleths over which noise would attenuate to NOAA-established thresholds (NMFS 2016a, 2016b). Analysis of potential impacts on fish used the NOAA-developed spreadsheet and associated thresholds for injury and behavioral effects on fishes (WSDOT 2019). A full explanation of survey methods and results is discussed in Appendix G of this document.

4.3.4.2 Thresholds of Significance

The following significance criteria are based on Appendix G of the State CEQA Guidelines and provide the basis for determining significance of impacts associated with biological resources resulting from the implementation of the proposed project. The determination of whether a biological resource impact would be significant is based on the professional judgment of the District as Lead Agency and supported by substantial evidence in the administrative record.

Impacts are considered *significant* if the proposed project would result in any of the following:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW and USFWS.
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW, NMFS, or USFWS.
3. Have a substantial adverse effect on state- or federally protected wetlands (e.g., marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means.
4. Result in substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedance of the use of native wildlife nursery sites.
5. Conflict with any applicable local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance or with the provisions of an applicable adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

The analysis of the potential impacts of the proposed project related to Threshold 4 is provided in Section IV of the Initial Study/Environmental Checklist (Appendix G of this Draft EIR), which determined that the proposed project would result in less-than-significant impacts for this issue area. The analysis and conclusions therein are incorporated by reference in this section of the Draft EIR and summarized in Chapter 6, Section 6.4, *Effects Not Found to Be Significant.* Therefore, only Thresholds 1, 2, 3, and 5 are discussed in the impact analysis that follows.

4.3.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW and USFWS.

Impact Discussion

Construction of the landside portion of the proposed project, particularly the GB Capital Component, Bayshore Bikeway Component, and City Program – Development Component, would require demolition or grading equipment for site preparation, construction cranes for installation of the hotels, and standard construction equipment, such as earth-moving equipment, concrete trucks, forklifts, and pile drivers. Construction would temporarily disrupt the area due to an increase in noise levels, truck traffic, and ground-disturbing activities.

Construction of the waterside portion of the GB Capital Component would include in-water operations, such as pile driving, which would generate increased noise and ground-disturbing activities within the marine community. Construction of the new moorings, aquaculture, and docks would also include in-water activities, such as pile driving, which would result in impacts on candidate, sensitive, or special-status species within Sweetwater Channel. Landside connections to these docks would occur on the rock jetty south of the existing marina. This rock jetty is composed of riprap and does not provide habitat for any special-status species.

Operation of the landside portion of the proposed project would result in new hotels and structures for tourist/visitor-serving commercial development associated with the GB Capital Component and City Program – Development Component and expanded recreational facilities, such as the Bayshore Bikeway Component. Operation of the waterside portion of the proposed GB Capital Component would include a vessel dock and new boat slips within Sweetwater Channel, moorings, and aquaculture facilities. The dock structures would shade eelgrass growing along the shoreline. Aquaculture facilities may require the use of floating or suspended containment structures. The proposed expanded marina would increase boating operations and storage. Impacts on eelgrass from marina operation and construction are discussed under Threshold 2.

Construction

Special-Status Plant Species

Terrestrial

As discussed in Section 4.3.2, *Existing Conditions*, the terrestrial component of the BSA consists of developed, disturbed habitat, and natural vegetation communities. During the focused surveys, three sensitive plant species were observed: salt marsh bird's beak, estuary seablite, and beach goldenaster. No other species have a moderate-to-high potential to occur onsite, as identified in Table 4.3-3. No special-status plants would be directly affected by the proposed project. The Bayshore Bikeway Component Route 1 would be constructed approximately 15–20 feet above (due to slope) and 25 feet west of the nearest special-status plant occurrence, estuary seablite.

Indirect impacts on special-status plant species may result from construction activities associated with any development project components within approximately 200 to 300 feet of a special-status plant occurrence. These potential indirect, construction-related impacts include additional deposition of dust of the plants, erosion, introduction of invasive species on disturbed soils, roadway runoff, increased fire risk, trampling, and potential changes in hydrological conditions due to increased impervious surfaces directly adjacent to special-status plant habitats, particularly marsh habitat, which is uniquely vulnerable to changes in hydrology. Industrial development borders the project site to the west. Therefore, edge effects are anticipated primarily within the coastal salt marsh to the east of the proposed GB Capital Component and Bayshore Bikeway Component Route 1 or 3.

Additional dust from construction activities could reduce the photosynthetic vigor of special-status plants, primarily the estuary seablite occurrence approximately 25 feet east of the proposed Bayshore Bikeway Component Route 1. Construction activities could also result in construction-related soil erosion and runoff. The GB Capital Component and, to a lesser extent, the Bayshore Bikeway Component, would also increase the total amount of impervious surfaces directly adjacent to special-status plant species, particularly estuary seablite. This has the potential to increase stormwater runoff into the marsh, affecting these special-status plant occurrences. If additional flows of stormwater change the salinity of the brackish waters in which these plants occur, it could result in a decline in their overall health.

District projects greater than 1 acre are required to comply with the State's Construction General Permit (CGP). The CGP requires SWPPP development and implementation, sediment control and erosion control BMP implementation, and regular inspections and reporting. Standard construction BMPs include wind erosion control, silt fencing, and vehicle and equipment cleaning to control dust, erosion, and runoff during all ground-disturbing activities (i.e., GB Capital Component and Bayshore Bikeway Component) associated with the proposed project. In addition, all project-related grading would be subject to standard restrictions, such as BMPs and requirements that address erosion and runoff, and would meet requirements established by the federal CWA and NPDES; preparation of a SWPPP would be required as described in Section 4.8, *Hydrology and Water Quality*. These requirements will reduce dust, erosion, and hydrological changes/runoff issues to less than significant.

Other indirect effects, such as trampling or inadvertent impacts on estuary seablite, may still occur due to this plant's proximity to the work areas for the Bayshore Bikeway Component. These impacts may result in direct mortality to estuary seablite, which would be significant absent mitigation (**Impact-BIO-1**).

Marine

Eelgrass, which is categorized as EFH and given further designation as a Habitat of Particular Concern, was identified within the waterside area of the GB Capital Component in Sweetwater Channel; because it is considered a sensitive natural community, impacts related to eelgrass are covered under Threshold 2, below. No other marine-based candidate, sensitive, or special-status plant species were present within or adjacent to the project site during the marine biological surveys performed in October 2018. No impact on marine-based candidate, sensitive, or special-status plant species would occur.

Special-Status Wildlife Species

Terrestrial

As discussed in Section 4.3.2.2, *Candidate, Sensitive, and Special-Status Species*, and Table 4.3-4, seven sensitive terrestrial wildlife species were observed within the vicinity of project site during surveys: Cooper's hawk, American peregrine falcon, osprey, wandering skipper, Belding's Savannah sparrow, American white pelican, and double-crested cormorant. Belding's Savannah sparrow is state-listed as an endangered species under CESA and requires coastal salt marsh habitats. The American peregrine falcon is also a state fully protected species under the CFGC and has the potential to use the urban landscaped areas to hunt prey species. Four species that were not observed during 2016 wildlife surveys, but are considered to have a moderate potential to occur onsite, include orange-throated whiptail, yellow rail, northern harrier, and Southern California rufous-crowned sparrow.

The direct loss of breeding and foraging habitat for special-status wildlife species is limited to the loss of Diegan coastal sage scrub (including restored and baccharis-dominated forms) from construction of the GB Capital Component and Route 3 of the Bayshore Bikeway Component (Table 4.3-7). No impacts on southern coastal salt marsh would occur under the GB Capital Component or Bayshore Bikeway Component Route 3.

If Route 1 were chosen instead of Route 3, then impacts would occur on 0.03 acre of southern coastal salt marsh and 0.40 acre of Diegan coastal sage scrub. Impacts on southern coastal salt marsh would directly affect habitat for the state-listed Belding's Savannah sparrow, reducing the total amount of habitat available for this species. Habitat impacts are identified in Table 4.3-7.

Table 4.3-7. Direct Permanent Impacts within the Biological Survey Area (acres) on Native Vegetation

Vegetation Community/ Land Cover	Acreage	GB Capital Component[1]	Bayshore Bikeway Route 3	Bayshore Bikeway Route 1
Upland Vegetation Communities				
Diegan Coastal Sage Scrub	0.49	–	0.02	0.02
Disturbed Diegan Coastal Sage Scrub	0.54	–	–	–
Restored Diegan Coastal Sage Scrub	1.87	0.56	0.43	0.37
Diegan Coastal Sage Scrub: *Baccharis*-dominated	2.45	1.87	0.03	0.01
Wetlands				
Southern Coastal Salt Marsh	6.13	–	–	0.03
Open Water	1.62	–	–	–
Saltpan/Mudflats	0.19	–	–	–
Total	13.29	2.43	0.48	0.43

[1] Acreage of impact only includes the GB Capital Component

Effects on Special-Status Species from Coastal Sage Scrub Impacts

Together, the GB Capital Component and Bayshore Bikeway Component (Route 1 or Route 3) would result in the loss of less than 3 acres of isolated Diegan coastal sage scrub, much of it either disturbed or in early successional stages. Two special-status species that rely on this habitat have a

moderate potential to occur within the proposed impact areas: orange-throated whiptail and Southern California rufous-crowned sparrow. Both species are somewhat widespread in the region, and these minimal impacts on marginal habitat would not result in a regional decline or the increased potential of either species being listed under the ESA or CESA. As a result, impacts on these species would be less than significant.

Effects on Special-Status Species from Coastal Salt Marsh Impacts

Direct impacts on 0.03 acre of southern coastal salt marsh would occur only if the Bayshore Bikeway Component Route 1 alignment were selected. These impacts would result in the potential for direct take of a state-listed species, Belding's Savannah sparrow. In addition, direct impacts, including mortality on the wandering skipper, may also occur from construction of the Bayshore Bikeway Component Route 1 because this species is a salt-marsh endemic that was observed directly adjacent to the proposed Bayshore Bikeway Component Route 1 location. Yellow rail may also be directly affected by construction and operation of the Bayshore Bikeway Component Route 1 because this species has a moderate potential to occur within the coastal salt marsh habitat that could be affected by the construction of Bayshore Bikeway Component Route 1. Impacts on Belding's Savannah sparrow, yellow rail, and wandering skipper coastal salt marsh habitat would constitute a significant impact on a special-status species, and these impacts would require mitigation (**Impact-BIO-2**).

Water quality impairment related to in-water construction activities associated with the GB Capital Component could indirectly affect foraging opportunities for Belding's Savannah sparrow within and adjacent to the project site. Activities such as pile driving and marina equipment installation can create sediment-disturbing activities, which would in turn create elevated turbidity levels. Moreover, equipment required to perform these activities has potential to discharge pollutants while work is being performed. These indirect impacts are discussed in Threshold 2.

Effects on Nesting Special-Status Avian Species

Belding's Savanna Sparrow and Light-Footed Ridgway's Rail

The GB Capital Component and the Bayshore Bikeway Component Route 1 and Route 3 occur directly adjacent to salt marsh habitats that could support Belding's Savannah sparrow and light-footed Ridgway's rail. Construction-related noise and anthropogenic disturbance could result in nest or chick abandonment. These potential impacts would be significant (**Impact-BIO-3**).

Osprey

Pepper Park is proposed to be expanded by approximately 2.54 acres (from approximately 5.22 acres to approximately 7.76 acres), as described in Chapter 3, *Project Description*. As part of development envisioned in the Balanced Plan, a road configuration change is also proposed along the existing southern terminus of Tidelands Avenue, south of 32nd Street, referred to as Proposed Road D1. This road change is also directly north of the Pepper Park Expansion (See Figure 3-4). Areas proposed for park expansion are within approximately 100 feet of an existing nest platform, referred to as NC03, that osprey use for nesting. This platform is also directly adjacent to the Proposed Road D1. Construction noise associated with the Pepper Park Expansion or the Proposed Road D1 could cause stress to nesting ospreys and possibly nest or chick abandonment.

In addition, construction of a new rail corridor proposed as part of the Pasha Rail Improvement Component has the potential to result in stress to nesting ospreys and possibly nest or chick

abandonment because those construction activities are proposed within approximately 500 feet of known osprey nest NC02 and within approximately 400 feet of known nest NC03. Noise-generating activities in this area, such as those associated with construction of railroad, roads, or the park expansion, and increased presence of humans could result in nest or chick abandonment by ospreys using these nest areas. Impacts on nesting ospreys from activities associated with the Pepper Park Expansion, the Pasha Rail Improvement Component, or existing and proposed roadways within the Balanced Plan would constitute a significant impact on a special-status species, and these impacts would require mitigation (**Impact-BIO-4**).

Effects on Foraging Special-Status Avian Species

The loss of approximately 3 acres of foraging habitat (i.e., coastal sage scrub habitats) for special-status avian species, such as American peregrine falcon, Cooper's hawk, and northern harrier, would occur as a result of the proposed project; in particular, GB Capital Component and Bayshore Bikeway Component Route 1 and Route 3. In addition, open water foraging habitats may be affected temporarily by construction activities associated with GB Capital waterside improvements, particularly for California least tern and osprey, which require open water habitats for foraging. These impacts on foraging habitat would be minimal compared to the regional availability of foraging habitat for these species. In addition, the American peregrine falcon, Cooper's hawk, and northern harrier and their prey species are well adapted to urban environments. Moreover, the District is required by regulation/law to implement the requirements of its Regional General Permit (RGP) 72, which requires that the

> permittee shall ensure that if in-water construction is performed during the tern nesting season that turbidity is monitored during in-water construction. If the in-water work area is 20 percent more turbid than ambient conditions, the Permittee shall cease work immediately until the turbidity dissipates within the work area. If the turbidity cannot be dissipated within the work area, the Permittee shall install a silt curtain to control the turbidity during in-water construction.

As a result, impacts on open water foraging habitat would remain less than significant.

In addition to the temporary loss of this foraging habitat, construction impacts on these species could also occur and result in the temporary displacement, or avoidance, of these habitat areas during construction. Human presence and noise could also result in the temporary avoidance of prey species on which these special-status avian species depend. However, construction and noise disturbances are very common in urban settings and unlikely to deter prey species from periodically using the project site. As a result, these impacts on foraging habitat would be less than significant.

Effects on Birds Protected by the MBTA

With the exception of nonnative, human-introduced bird species such as house sparrow (*Passer domestics*), European starling (*Sturnus vulgaris*), rock pigeon (*Columba livia*), and Eurasian collared dove (*Streptopelia decaocto*), any nesting bird found onsite would be protected under the MBTA and CFGC. There is suitable nesting habitat for a number of bird species protected under the MBTA. This habitat potentially occurs within all habitats and land covers, including ornamental, landscaped, and developed areas, in most of the project components, including the Balanced Plan and City Program – Development Component discussed in Chapter 3, *Project Description*, as well as within the GB Capital Component and Bayshore Bikeway Routes discussed thus far in this section. The highest-quality nesting bird habitat would occur in the Diegan coastal sage scrub and southern coastal salt marsh. There is also potential for birds, including special-status Belding's Savannah sparrow and Southern California rufous-crowned sparrow, which are protected under the MBTA and CFGC, to

breed in and utilize the area within and adjacent to the project site during construction activities, both outside and during the nesting season.

There is a potential that active nests could be destroyed or abandoned (e.g., due to human disturbance or noise) during construction, such as vegetation removal, grading or site-preparation activities. Destruction of active nests or abandonment of active nests caused by project activities would be considered a significant impact and a violation of the MBTA and CFGC Sections 3503 or 3503.5 (**Impact-BIO-5**) if those impacts occurred to avian species protected under the MBTA. Therefore, a significant impact potentially would occur, and mitigation is required.

Effects on Special-Status Bat Species and Bat Roost Sites

Portions of the proposed project area, including the GB Capital Component and Bayshore Bikeway Component Route 1 and Route 3, have the potential to support both roosting and foraging habitat for special-status bat species, including the pallid bat and spotted bat (See Table 4.3-4). Impacts on foraging bat habitat could include the removal of native or naturalized vegetation as a result of construction; however, these impacts on foraging habitat would be minimal compared to the regional availability of foraging habitat for these species. In addition, any bat species in this area would be well adapted to urban environments. As a result, these impacts on foraging habitat would be less than significant.

A focused bat roost search was not conducted as part of the biological review for this project, and, as such, it is possible that bat roosts for common and potentially special-status bats occur within the proposed impact areas. Removal or trimming of suitable roost trees could directly harm roosting bats, should they be present within the area during project construction (**Impact-BIO-6**). Temporary indirect effects, such as noise, vibration, dust, and night lighting from construction, also could disturb roosting bats, should they be present within the area.

Marine

Green sea turtles have potential to occur within the project site on a transient basis. In addition, harbor seal, California sea lion, common dolphin, and coastal bottlenose dolphin are found in San Diego Bay; however, these species are not likely to occur within Sweetwater Channel. In-water pile driving is proposed as part of the GB Capital Component of the project. Temporary noise disturbances have the potential to cause Level A (i.e., injury) and Level B (i.e., behavioral) Harassment of marine mammals and green sea turtles from impact hammer and vibratory pile driving. The worst-case sound energy levels associated with pile driving were determined based on the following assumptions: 18-inch and 24-inch concrete piles, with up to 240 strikes per day to set piles. A full discussion of potential impacts on marine resources associated with pile driving is included in Appendix G.

As described in Appendix G, application of NOAA thresholds for physical injury and behavioral modification for fishes allowed calculation of isopleths within which injury or behavioral modification may occur. Peak sound levels associated with in-water construction are not anticipated to result in physical injury to fishes given that peak sound levels and cumulative sound exposure levels are anticipated to be lower than the thresholds for injury (Table 4 in Appendix G). Behavioral modification may occur for all fish present within 22 meters of pile driving. During in-water impact-hammer and vibratory pile driving, there is the potential for direct harm to fishes. Sounds associated with in-water impact-hammer and vibratory pile driving may reach NOAA-established thresholds for injury based on cumulative effects of sound exposure. Pile driving associated with installation of

additional docks would result in noise levels that may cause behavioral disruption of marine mammals, fishes, and green sea turtles (**Impact-BIO-7**).

Operation

Special-Status Plant Species

Terrestrial

As mentioned above under *Construction*, three sensitive plant species occur within the BSA: salt marsh bird's beak, estuary seablite, and beach goldenaster. No direct impacts on special-status plants would occur from operation of the proposed project.

The GB Capital Component would result in the construction of a four-story building on Parcel B6, the first floor of which would include retail space. The upper three stories would have up to 60 rooms. This building would be approximately 300 feet west of the nearest estuary seablite and salt marsh bird's beak occurrences. Indirect impacts from shading are likely to be minimal on these species, considering this distance. These indirect impacts are not anticipated to result in mortality or a decline in the health of these special-status plant species, and, as such, the GB Capital Component would result in less than significant indirect impacts.

Potential indirect impacts on special-status plant species associated with project operations could include trampling by pedestrians or cyclists traveling off-trail and into native habitats adjacent to the Bayshore Bikeway Component Route 1, and invasion by exotic plants into areas adjacent to it. Bayshore Bikeway Component Route 1 is approximately 25 feet west of the nearest estuary seablite occurrence. However, this adjacent estuary seablite occurrence is down a very steep incline and located within a coastal salt marsh that is periodically inundated and difficult to access. Although it is unlikely that trampling of these occurrences would happen frequently enough to result in a long-term decline of this occurrence, if trampling did occur and resulted in a decline of this population, those impacts would be significant (**Impact-BIO-8**). This is primarily because of the very limited costal salt marsh habitat remaining in southern California, and the special-status plant species observed in the BSA are salt marsh obligates.

Indirect impacts on special-status plants, including estuary seablite, are not anticipated during operation of Bayshore Bikeway Component Route 3 because fencing would be installed along the edge of the bikeway to prevent disturbance to any plants that may be present in the area and protect native habitat from human encroachment into areas adjacent to the bikeway. As a result, no significant impacts are anticipated from operation of the Bayshore Bikeway Component Route 3.

Special-Status Wildlife Species

Terrestrial

Foraging special-status avian species, such as Cooper's hawk and American peregrine falcon, are present within the project site and well adapted to life in an urban environment. New buildings associated with the proposed project would offer potential nesting habitat for American peregrine falcon, because this species is sometimes observed using tall buildings for nesting. Additionally, new development would not deter prey species from utilizing the project site, because the area is currently urbanized. Potential impacts resulting from operation of the proposed project could include increasing the potential for (1) habitat degradation; (2) bird strikes; and (3) reducing the amount of open water, each of which is discussed in more detail below.

Lighting associated with the GB Capital Component (e.g., lighting at the RV sites, the modular cabins, the new retail uses, expansion of the marina, on the hotels) would add new light sources to the nighttime lighting landscape in the National City waterfront area, which could disrupt wildlife behaviors (i.e., high frequency blue light has been shown to disrupt natural circadian rhythms in wildlife [and humans] leading to disruption in sleep and wildlife behaviors). The introduction of a potentially significant amount of new nighttime lighting from the operation of the GB Capital Component would result in a potential impact to wildlife (**Impact BIO-10**). **MM-AES-8** would be implemented during operation of the GB Capital Component to reduce the potential impact to wildlife behaviors from lighting.

The proposed lighting design has been refined to avoid or minimize potential impacts on migrating birds travelling along the Pacific Flyway and includes LED lighting with a correlated color temperature of 2,700 Kelvins to emit less high-frequency blue light, which has been shown to disrupt natural circadian rhythms in humans and wildlife, leading to disruption in sleep and wildlife behaviors. Lighting would be directed downward and shielded to eliminate or reduce light trespass, sky glow, and glare.

The GB Capital Component has the potential to result in the permanent loss of open water habitats once the proposed waterside improvements (e.g., dock slips, aquaculture) are operational. California least tern and osprey, among other species, forage in these open water habitats, and the permanent loss of these areas would reduce the long-term availability of these areas. However, these impacts on foraging habitat would be minimal compared to the regional availability of foraging habitat for these species. As a result, this impact would be less than significant.

The addition of new buildings would present an obstacle for birds migrating through the area and reduce the amount of potential nesting habitat for bird species that commonly inhabit heavily urbanized landscapes. New buildings also can create a flight hazard for birds, because they may have difficulty distinguishing the buildings from open airspace. Bird strikes to windows of buildings have been documented as a major source of avian fatalities, often occurring on very tall buildings with many windows (Erickson et al. 2005; Gelb and Delacretaz 2006; Klem 1990, 2008). Collisions with glass claim the lives of hundreds of millions of birds each year in the United States (Sheppard and Phillips 2015). In particular, highly reflective windows opposite dense vegetation appear to confuse avian species and prevent adequate avoidance behavior to limit fatality (Gelb and Delacretaz 2006). The best predictor of strike rates is the density of birds in the vicinity of the glass, which, in turn, is likely a factor influenced by the presence or availability of water, vegetation, or bird feeders (Klem 2008). In general, many studies have concluded that the majority of bird strikes on buildings occur during the day and involve avian species that are spring or fall migrants, as well as resident species hitting reflective plate glass windows (Gelb and Delacretaz 2006; Klem 2008; Erickson et al. 2005). The GB Capital Component of the proposed project is adjacent to Paradise Marsh, an area that provides habitat for a number of special-status bird species. The proposed project is also located along the coastline and includes a portion of a bird migration corridor and likely includes important migratory stopover habitat. The GB Capital Component also includes construction of buildings, including a hotel up to 11 stories tall. Due to the proximity to open water as a bird attractant, the location within a migration corridor, adjacency to native vegetation, and building heights that may extend into the altitude of migrating birds, the proposed project (GB Capital Component and City Program – Development Component) may result in significant impacts on migrating or special-status bird species due to an increase in bird strikes (**Impact-BIO-9**).

Operation of the new railroad segment associated with the Pasha Rail Improvement Component also would not result in new indirect impacts on osprey. The location of known nests NC02 and NC03 are located adjacent to an existing railroad line. The new segment of railroad would be further away from these two osprey nests than the existing railroad line. As a result, it is not anticipated that a significant impact will occur as a result of operation of the Pasha Rail Improvement Component.

Operation of the Bayshore Bikeway Component Route 1 or Route 3, as well as the permanent facilities associated with the GB Capital Component, would occur adjacent to Paradise Marsh. Long-term indirect impacts on special-status wildlife associated with operation of the Bayshore Bikeway Component Route 1 include behavior modification or habitat degradation resulting from pedestrians or cyclists traveling off-trail and habitat degradation through the spread of invasive plant species (**Impact-BIO-8**). As discussed in Chapter 3, *Project Description*, Bayshore Bikeway Component Route 3 is proposed to include fencing along the edge of the bikeway in the area that is proposed to be downslope/east of Marina Way and west of Paradise Marsh. Therefore, operation of Bayshore Bikeway Component Route 3 would result in less-than-significant long-term indirect impacts on special-status wildlife.

Noise impacts on avian species protected under the MBTA may occur as a result of operation of the amphitheater/community stage at Pepper Park. These impacts are anticipated to occur primarily to common avian species because the habitat at Pepper Park is developed with ornamental street trees the only source of nesting habitat for avian species. The proposed amphitheater would be constructed no closer than 150 feet away (and likely more than 300 feet away, depending on the design) from where ospreys are known to nest (i.e., along Goesno Place, north of Pepper Park). Operational noise impacts on common avian species is not expected to result in nest abandonment or mortality because avian species nesting in this area are well acclimated to human presence and noise. Furthermore, noise generated from performances at the amphitheater will be of short duration (a few hours at a time and not every day). As a result, it is not anticipated that a significant impact will occur as a result of operation of the Pepper Park amphitheater.

Marine

The waterside operations of the proposed project would not result in impacts on sensitive marine wildlife species. However, operation of the GB Capital improvements within Sweetwater Channel would create a potential shading impact on eelgrass beds located east of the entrance to the Pier 32 Marina within the proposed project area. Waterside operations would generate additional shade, thus leading to the loss of foraging habitat (i.e., eelgrass) for marine mammals. As described above, additional impacts related to eelgrass are covered under Threshold 2, below, because it is considered a sensitive natural community.

A marina for recreational boating exists on the project site. Further expanding marina operations would increase vessel traffic to the area; however, the project would not change the current water use within Sweetwater Channel. With increased vessel traffic, a number of potential impacts could occur, including involuntary bilge water release, copper paint deterioration, litter, vessel strikes, vessel noise, and biofouling. Potential impacts on water quality from increased boat traffic are discussed in Section 4.8, *Hydrology and Water Quality.*

- **Vessel Strikes.** An increase in boat traffic would result from the proposed boat slips associated with the GB Capital Component. Furthermore, boats would be allowed further east in Sweetwater Channel due to the relocation of the buoys from directly south of Pier 32 Marina to the eastern side of the San Diego Gas & Electric property and former railroad bridges, north and

south of the channel, as shown in Figure 3-8. This would increase the number of boats in this area of Sweetwater Channel, which could provide habitat for marina mammals and sea turtles.

Increased vessel traffic could potentially cause harm to marine mammals and sea turtles from vessel collisions. Starting at Sweetwater Channel, vessels are required to comply with District Port Code Section 4.30(c)3, which requires vessels to travel at a speed at or below 5 miles per hour. Adherence to this speed limit will ensure vessels travel at a safe speed to reduce the potential for collisions, ensure sufficient time and distance to maneuver vessels, reduce vessel wake, and generally minimize disturbance to surrounding vessels. Thus, compliance with the Port Code speed limit would minimize the potential for collisions with marine mammals and sea turtles substantially, and the potential impact would be less than significant.

- **Vessel Noise.** The increased vessel traffic would not result in a loss of habitat for special-status species, marine mammals, or sea turtles. Sounds from the engines and drive systems of vessels within Sweetwater Channel could disturb marine mammals that happen to be nearby. However, marine mammals and sea turtles would likely move away from the sound of approaching vessels as it increased in intensity, and exposure would be of short duration. Furthermore, vessels approaching the project area would be running at lower speeds, thus operating with lower noise output. Although the number of vessels approaching and entering the project area would increase, the overall underwater noise levels would not increase measurably because the vessels would pass relatively quickly at low speeds (i.e., in a matter of minutes); impacts from vessel noise would be less than significant.
- **Biofouling**. Nonnative invertebrate species can also be introduced via vessel hulls, propellers, anchors, and associated chains. The potential for introduction of exotic species via vessels would be increased proportionately to the increase in number of vessels from the proposed project. However, vessel hulls are generally coated with antifouling paints and cleaned at intervals to reduce the frictional drag from growths of organisms on the hull (Global Security 2007), which would reduce the potential for transport of exotic species. Thus, the impact from biofouling would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW and USFWS. Potentially significant impact(s) include the following.

Construction

Impact-BIO-1: Impacts on Estuary Seablite During Construction (Bayshore Bikeway Component Route 1 or Route 3). Potential construction-related indirect or inadvertent impacts resulting in direct mortality of individual estuary seablite plants may occur during construction activities. These impacts would be significant.

Impact-BIO-2: Negative Effects on Salt Marsh Endemic Special-Status Wildlife Habitats (Bayshore Bikeway Component Route 1). The permanent loss of 0.03 acre of coastal salt marsh habitat has the potential to negatively affect the state-listed Belding's Savannah sparrow, observed in the project area during site surveys; wandering skipper, observed directly adjacent to Bayshore

Bikeway Component Route 1; and yellow rail, which has a moderate potential to occur within the salt marsh habitat in Paradise Marsh. These impacts would be significant without mitigation.

Impact-BIO-3: Impacts on Nesting Special-Status Salt Marsh Avian Species (GB Capital Component and Bayshore Bikeway Component Routes 1 and 3). Noise-generating impacts resulting from project construction activities (e.g., grading, site preparation) in close proximity to salt marsh habitats supporting Belding's savanna sparrow or light-footed Ridgway's rail could cause nest or chick abandonment. These impacts would be a violation of the MBTA or CFGC. Therefore, this impact would be potentially significant.

Impact-BIO-4: Impacts on Nesting Osprey (Pepper Park Expansion, Pasha Rail Improvement Component, and Roadway Configuration in Balanced Plan). Noise-generating impacts resulting from project construction activities in close proximity to osprey nests, such as those proposed for the Pepper Park Expansion, Pasha Rail Improvement Component, and roadway improvements envisioned in the Balanced Plan, could cause nest or chick abandonment. These impacts would be a violation of the MBTA or CFGC. Therefore, this impact would be potentially significant.

Impact-BIO-5: Potential Disturbance or Destruction of Nests Protected by the Migratory Bird Treaty Act and CFGC (Pepper Park Expansion and Roadway Configuration in Balanced Plan, GB Capital Component, and Bayshore Bikeway Component Routes 1 and 3). Removal of Diegan coastal sage scrub and coastal salt marsh habitat during construction, as well as noise from construction activity, could impede the use of bird breeding sites during the nesting season (February 15–September 15). The destruction of an occupied nest would be considered a significant impact if it were a violation of the MBTA or CFGC. Therefore, this impact would be potentially significant.

Impact-BIO-6: Bat Roost Site Direct Impacts (GB Capital Component, and Bayshore Bikeway Component Route 1 and Route 3). Removal or trimming of suitable roost trees could directly harm roosting bats, resulting in mortality of common or special-status bat species. These impacts could result in large bat mortality events and would be significant absent mitigation.

Impact-BIO-7: Potential Disruption of Fishes, Green Sea Turtle, and Marine Mammals During Pile Driving Activities (GB Capital Component). Impact-hammer and vibratory-hammer pile-driving activities would potentially generate enough underwater noise to injure (Level A Harassment) or alter behavior (Level B Harassment) of green sea turtles, fishes, and marine mammals. This impact would be potentially significant.

Operation

Impact-BIO-8: Potential Trampling of Sensitive Vegetation and Special-Status Plant Species, Potential Behavior Modification for Special-Status Wildlife or Declines in Habitat Quality Through Invasion of Exotic Plants (Bayshore Bikeway Component Route 1). Operation of Bayshore Bikeway Component Route 1 could result in pedestrians or cyclists traveling off-trail, which could result in direct mortality of terrestrial candidate, sensitive, or special-status plant species. These actions could also result in special-status wildlife modifying the foraging or breeding behavior to avoid humans. Humans could also introduce invasive species propagules, reducing the quality of habitat for these species. These impacts would be potentially significant.

Impact-BIO-9: Reflective Materials and Increased Bird Strikes (GB Capital Component and City Program – Development Component). Use of reflective building and glass finishes associated

with hotel development may confuse birds in flight, leading to an increase in strikes. This impact would be potentially significant.

Impact-BIO-10: Disruption of Wildlife Behavior Due to Additional Lighting (GB Capital Component). New lighting would be added to the GB Capital Component area as a result of the proposed development, including an RV park, retail, expanded marina, modular cabins, and hotel buildings, that would disrupt wildlife behaviors. The impact would be significant.

Mitigation Measures

Construction

For **Impact-BIO-1:**

MM-BIO-1: Conduct Surveys and Monitoring for Estuary Seablite(Bayshore Bikeway Component Route 1 or 3): An authorized biologist shall be present onsite during construction within or adjacent to suitable habitat for estuary seablite to ensure that avoidance and minimization measures are in place according to specifications and to monitor construction in the vicinity of the estuary seablite population at a frequency necessary to ensure that avoidance and minimization measures are followed properly. The biological monitor shall report any noncompliance to CDFW within 24 hours.

Before ground disturbance or other activities associated with construction of Bayshore Bikeway Component Route 1 or Route 3, a qualified botanist shall survey all proposed construction and access areas for presence of special-status plant species. Preconstruction surveys shall occur during the appropriate season and in accordance with established protocols up to 1 year in advance of construction, provided temporary construction easements have been granted to construction areas. These surveys shall be conducted in all construction areas that contain suitable habitat for special-status plant species. These surveys shall be for the purpose of documenting plant locations relative to the construction areas and ensure avoidance, where feasible. If construction starts prior to the appropriate season, and it is unfeasible to conduct preconstruction surveys, then plant documentation for avoidance and ESA fencing shall rely on previous population locations.

Populations of estuary seablite or other special-status plant species observed during these surveys shall be clearly mapped and recorded, along with the approximate numbers of individuals in each population and their respective conditions. To the maximum extent feasible, construction areas and access roads shall be adjusted to avoid loss of individual estuary seablite and impacts on habitat supporting this species.

For **Impact-BIO-2:**

MM-BIO-2: Consult with CDFW Regarding Belding's Savannah Sparrow (Bayshore Bikeway Component, Route 1 Only). If Route 1 is selected as the final alignment for the Bayshore Bikeway Component, and if impacts on salt marsh habitat are anticipated, the entity responsible (i.e., the City or Caltrans) for implementing the Bayshore Bikeway Route 1 shall consult with the CDFW to determine the need to seek an Incidental Take Permit (ITP) through Section 2081 of the Fish and Game Code for potential impacts on Belding's Savannah sparrow habitat. Compensatory mitigation shall be provided at a minimum of a 1:1 ratio in accordance with the ITP requirements.

For **Impact-BIO-3**:

MM-BIO-3: Avoid Marsh Endemic Avian Species During the Breeding Season (GB Capital Component, and Bayshore Bikeway Component Route 1 and Route 3). All project construction activities occurring within 300 feet of salt marsh habitat (e.g., portions of Bayshore Bikeway Component Route 1 and Route 3 and some of the GB Capital Component) shall take place outside of the light-footed Ridgway's rail and Belding's Savannah sparrow breeding season (i.e., February 15–September 15); no construction work shall occur within 300 feet of the marsh during this time period.

For **Impact-BIO-4**:

MM-BIO-4: Avoid Impacts on Osprey During Nesting Season (January 15–June 15) (Pepper Park Expansion and Roadway Configuration in Balanced Plan, and Pasha Rail Improvement Component). To ensure nesting ospreys are not disturbed, the project proponent for the Balanced Plan (specifically, the roadway improvements and Pepper Park expansion), as well as the project proponent for the Pasha Rail Improvement Component, shall avoid all noise-generating construction activities during the osprey nesting season (January 15–June 15) within all proposed construction areas or shall implement all of the following:

- Surveys of historical nest locations maintained by the District shall be conducted to determine current occupancy status within 72 hours prior to construction/onset of noise-generating activities. If nests are occupied, or if the nest occupancy cannot be determined due to the height of the nest, the area shall be flagged and mapped on the construction plans, along with an avoidance buffer of sufficient size to avoid impacts on the nest. The project biologist shall determine the size of the avoidance buffer based on behavioral observations, ambient versus construction-related noise, and other data gathered during nest monitoring. All work within the avoidance buffer shall cease until the nesting cycle is complete.
- Surveys of all potential osprey nest locations, including existing utility poles, shall be conducted within 72 hours prior to construction/onset of noise-generating activities within 500 feet of any proposed work areas where noise-generating activities could affect nest success. These surveys could be conducted concurrent with those anticipated under **MM-BIO-5** for MBTA avian species, or conducted separately. If nests are occupied, or if the nest occupancy cannot be determined due to the height of the nest, the area shall be flagged and mapped on the construction plans, along with an avoidance buffer of sufficient size to avoid impacts on the nest. The project biologist shall determine the size of the avoidance buffer based on behavioral observations, ambient versus construction-related noise, and other data gathered during nest monitoring. All work within the avoidance buffer shall cease until the nesting cycle is complete.

For **Impact-BIO-5**:

MM-BIO-5: Avoid Impacts on MBTA Avian Species, Including Non-Listed Avian Species (Pepper Park Expansion and Roadway Configuration in Balanced Plan, GB Capital Component, and Bayshore Bikeway Component Routes 1 and 3). To ensure compliance with the MBTA and similar provisions under CFGC Sections 3503 and 3503.5, the project proponent for the Balanced Plan (specifically, roadway improvements, Pepper Park expansion), GB Capital Component, Pasha Rail Improvement Component, Bayshore Bikeway Component, and City Program – Development Component shall conduct all vegetation removal during the non-breeding season between September 15 and January 14 or shall implement the following:

- If construction activities are scheduled between January 15 and September 14, a biological survey for nesting bird species shall be conducted within the proposed impact area and at least a 300-foot buffer within 72 hours prior to construction. The nesting bird survey is applicable to all avian species protected under the MBTA and Fish and Game Code. The number of surveys required for covering this area shall be commensurate with the schedule for construction and the acreage that shall be covered. Multiple surveys for nesting birds shall be separated by at least 48 hours in order to be confident that nesting is detected, but the survey shall be no more 72 hours prior to the onset of construction.
- If any active nests are detected, the area shall be flagged and mapped on the construction plans, along with an avoidance buffer of sufficient size to avoid impacts on the nest. The project biologist shall determine the size of the avoidance buffer based on behavioral observations, ambient versus construction-related noise, and other data gathered during nest monitoring. All work within the avoidance buffer shall cease until the nesting cycle is complete.
- Nest buffers, nest survey techniques, and nest monitoring requirements shall be determined based on the project proponent's avian biologist. In accordance with this mitigation measure, nest buffers shall be implemented to ensure compliance with the MBTA and Fish and Game Code Sections 3503, 3503.5, and 3513. Additionally, if grading activities, construction activities, or other noise-generating activities lapse for more than 48 hours, an additional nesting bird survey shall be conducted. The results of the nesting bird surveys and buffers, including any determinations to reduce buffers, shall be included in a monitoring report submitted to the project proponent.
- If a nesting bird management plan is required as part of the site-specific impact analysis and mitigation for a particular component, then the parameters in this mitigation measure shall be applied as the minimum requirements for that particular component. More restrictive measures than these can be stipulated in the nesting bird management plan for that particular project component.

For **Impact-BIO-6**:

MM-BIO-6: Conduct Surveys for Maternal Bat Roost Site Surveys and Avoid Seasonal Impacts (GB Capital Component and Bayshore Bikeway Component Route 1 or Route 3). Prior to the start of project construction on the GB Capital Component or Bayshore Bikeway Component Route 1 or Route 3, a qualified bat biologist shall conduct a daytime assessment to examine structures and trees suitable for bat use. If bat sign is observed at that time, then nighttime bat surveys shall be conducted to confirm whether the structures or trees with suitable habitat identified during the preliminary assessment are utilized by bats for day

roosting or night roosting, ascertain the level of bat foraging and roosting activity at each of these locations, and perform exit counts to determine visually the approximate number of bats utilizing the roosts. Acoustic monitoring shall also be used during these surveys to identify the bat species present and determine an index of relative bat activity for that site on that specific evening.

If maternity sites are identified during the preconstruction bat habitat assessment, then no construction activities at that location shall be allowed during the maternity season (i.e., April 1–August 31) unless a qualified bat biologist has determined that the young have been weaned. If maternity sites are present, and it is anticipated that construction activities cannot be completed outside of the maternity season, then the qualified bat biologist, in consultation with CDFW, shall complete bat exclusion activities at maternity roost sites either as soon as possible after the young have been weaned or outside of the maternity season, or the qualified bat biologist, in coordination with CDFW, otherwise approves.

The removal of mature trees and snags shall be minimized to the greatest extent practicable. Prior to tree removal or trimming, qualified bat biologist shall examine large trees and snags to ensure that no roosting bats are present. Palm frond trimming, if necessary, shall be conducted outside the maternity season (i.e., April 1–August 31) to avoid potential mortality to flightless young and outside the bat hibernation season (November–February).

For **Impact-BIO-7**:

MM-BIO-7: Implement a Marine Mammal, Fish Injury, and Green Sea Turtle Monitoring Program During Pile-Driving Activities (GB Capital Component). Prior to construction activities involving impact-hammer and vibratory in-water pile driving, the project proponent shall prepare and implement a marine mammal, fish injury, and green sea turtle monitoring program. The District shall approve this monitoring program, which shall include the following requirements:

- For a period of 15 minutes prior to the start of in-water construction, a qualified biologist, retained by the project proponent (i.e., GB Capital) and approved by the District's Director of Development Services or their designee, shall monitor around the active pile driving areas to ensure that special-status species are not present. Monitors can also monitor for injured fish and stop work if there is an observation of concern.
- The construction contractor shall not start work if any observations of special-status species are made prior to starting pile driving.
- In-water pile driving shall begin with soft starts, gradually increasing the force of the pile driving. This allows marine mammals, green sea turtles, and fishes to flee areas adjacent to pile-driving activities.
- All monitors must meet the minimum requirements as defined by the National Oceanic Atmospheric Administration (NOAA)'s *Guidance for Developing a Marine Mammal Monitoring Plan* (NOAA 2019).
- Recommendations in the marine mammal and green sea turtle monitoring program shall be consistent with the District's Regional General Permit (RGP) 72, which requires that

  > Permittee shall ensure that if in-water construction is performed during the tern nesting season that turbidity is monitored during in-water construction. If the in-water work area is 20 percent more turbid than ambient conditions, the Permittee shall cease work

immediately until the turbidity dissipates within the work area. If the turbidity cannot be dissipated within the work area, the Permittee shall install a silt curtain to control the turbidity during in-water construction.

Operation

For **Impact-BIO-8**:

MM-BIO-8: Install Fencing Adjacent to Bayshore Bikeway Component Route 1 (Bayshore Bikeway Component Route 1). Prior to operation of Bayshore Bikeway Component Route 1, the project proponent for the Bayshore Bikeway Component shall install fencing along the edge of the Route 1 to prevent unauthorized access and trampling into Paradise Marsh. Fencing shall only be required along segments of Route 1 that are within approximately 300 feet of the coastal salt marsh areas. Fence material and design should be sufficient to prevent human encroachment on the eastern side of the Bayshore Bikeway Component Route 1 segment along Paradise Marsh.

For **Impact-BIO-9**:

MM-BIO-9: Implement Bird Strike Reduction Measures on New Structures (GB Capital Component and City Program – Development Component). Prior to issuance of any building construction/permits for any portion of the GB Capital Component or City Program – Development Component where the building would be taller than three stories, an ornithologist (retained by the respective project proponent and pre-approved by the District for the GB Capital Component or the City for the City Program – Development Component) familiar with local species will review building plans to verify that the proposed building has incorporated specific design strategies that qualify for Leadership in Energy and Environmental Design (LEED) credits, as described in the American Bird Conservancy's *Bird-Friendly Building Design* (Sheppard and Phillips 2015) or an equivalent guide to avoid or reduce the potential for bird strikes. Final building design must demonstrate to the satisfaction of the ornithologist that design strategies shall be in accordance with the *Bird-Friendly Building Design*, by incorporating strategies to minimize the threat to avian species, including but not limited to the following:

- Building Façade and Site Structures
    - Develop a building façade and site design that are visible as physical barriers to birds.
- Elements such as Netting, Screens, Grilles, Shutters, and Exterior Shades to Preclude Collisions.
    - Incorporate materials that have a low threat potential based on the Bird Collision Threat Rating and the Bird Collision Threat Rating Calculation Spreadsheet to achieve a maximum total building Bird Collision Threat Rating of 15 or less.
        - High Threat Potential: Glass: Highly Reflective or Completely Transparent Surface
        - Least Threat Potential: Opaque Surface
- Exterior Lighting
    - Fixtures not necessary for safety, entrances, and circulation shall be automatically shut off from midnight until 6:00 a.m.

- Exterior luminaires must meet these requirements for all exterior luminaires located inside project boundary based on the following:
  - Photometric characteristics of each luminaire when mounted in the same orientation and tilt as specified in the project design; and
  - The lighting zone of the project property (at the time construction begins). Classify the project under one lighting zone using the lighting zones definitions provided in the *Illuminating Engineering Society and International Dark Sky Association (IES/IDA) Model Lighting Ordinance (MLO) User Guide* (2011).

- Performance Monitoring Plan
  - The project proponent (e.g., GB Capital) shall develop a 3-year postconstruction monitoring plan to routinely monitor the effectiveness of the building and site design in preventing bird collisions for buildings over three stories high that shall include methods to identify and document locations where repeated bird strikes occur, the number of collisions, the date, the approximate time, and features that may be contributing to collisions, and shall list potential design solutions and provide a process for adaptive management.
  - The project proponent (e.g., GB Capital) shall provide an adaptive monitoring report demonstrating which design strategies have been incorporated and the results of adaptive monitoring for District review.

For **Impact-BIO-10**:

Implement **MM-AES-8**: **Limit Lighting (GB Capital Component**), as described in Section 4.1, *Aesthetics and Visual Resources*.

Level of Significance After Mitigation

Construction

Implementation of **MM-BIO-1** would reduce inadvertent impacts on estuary seablite (**Impact-BIO-1**) to less-than-significant levels by requiring surveys, monitoring, and avoidance measures when construction activities occur in close proximity to habitat for this species.

Implementation of **MM-BIO-2** would reduce impacts on the state-listed endangered Belding's Savannah sparrow (**Impact-BIO-2**) to less-than-significant levels by requiring coordination with wildlife agencies, an ITP, and species-specific conservation measures.

Implementation of **MM-BIO-3** would reduce impacts on the light-footed Ridgway's rail and Belding's Savannah sparrow (**Impact-BIO-3**) to less-than-significant levels by requiring that the start of construction activities occurs outside of the breeding season for light-footed Ridgway's rail and Belding's Savannah sparrow.

Implementation of **MM-BIO-4** would reduce impacts on nesting osprey in the area (**Impact-BIO-4**) to less-than-significant levels by requiring that the start of construction activities occurs outside of the osprey breeding and nesting season or by implementing preconstruction surveys, construction avoidance and minimization measures (e.g., avoidance buffers), and monitoring.

Implementation of **MM-BIO-5** would reduce impacts on common and special-status avian species during construction activities (**Impact-BIO-5**) to less-than-significant levels by requiring that the start of construction activities occurs outside of the breeding and nesting season or implementing construction measures and conducting preconstruction surveys in accordance with the MBTA and similar provisions under Sections 3503 and 3503.5 of the CFGC.

Implementation of **MM-BIO-6** would avoid impacts on bat maternal roost colonies by requiring that project proponents survey for maternal bat roost sites and avoid impacts on these sites through seasonal avoidance or monitoring prior to the start of construction activities.

Implementation of **MM-BIO-7** would reduce impacts on marine mammals, fishes, and green sea turtles (**Impact-BIO-7**) to less-than-significant levels by monitoring for marine mammals and green sea turtles prior to and during impact-hammer and vibratory pile driving and halting in-water pile-driving activities until the species has left the construction area.

Operation

Implementation of **MM-BIO-8** would reduce **Impact-BIO-8** on special-status plant and special-status wildlife species through the installation of fencing along Bayshore Bikeway Component Route 1. The fence would limit the potential for unauthorized access by pedestrians or cyclists in off-trail natural areas supporting special-status plant or wildlife populations.

Implementation of **MM-BIO-9** would reduce impacts on birds in flight (**Impact-BIO-9**) to less-than-significant levels by requiring the incorporation of design strategies that enable birds to recognize structures from the open sky.

Implementation of **MM-AES-8** would reduce the potential to disrupt wildlife behaviors from additional lighting sources by requiring lighting features that would emit less high-frequency blue light from the GB Capital Component. Therefore, **Impact-BIO-10** would be reduced to less than significant.

Threshold 2: Implementation of the proposed project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW, NMFS, or USFWS.

Impact Discussion

Operation of the waterside portion of the proposed project would result in modifications to the existing operational restrictions in the Coastal Development Permit for the Aquatic Center (Balanced Plan). Expanded uses at the Aquatic Center would increase the number of recreational users in Sweetwater Channel, but would not increase the overall development footprint within sensitive natural communities or Environmentally Sensitive Habitat Areas (ESHAs), which could result in impacts on the Paradise Marsh Refuge. In addition, operation of the GB Capital Component's proposed waterside improvements would involve floating docks and piles that would create a potentially significant permanent shading impact. Access to and from these docks would occur from the jetty on the south side of the existing marina; this jetty is riprap and not considered a sensitive natural community or ESHA due to its lack of habitat for special-status species. Potential impacts from operation of the waterside improvements include impacts on eelgrass due to restriction of

sunlight and incidental disturbances from propeller wash and recreational boater traffic. Additionally, potentially significant shading impacts may occur as a result of additional boats docked within Sweetwater Channel. Detailed analysis related to project construction and operations is provided below.

As discussed in Section 4.3.2, *Existing Conditions*, eelgrass habitat is present within the waterside component of the GB Capital Component. Eelgrass occurs in Sweetwater Channel, east of the entrance to the Pier 32 Marina, but does not occur within the Pier 32 Marina. Construction of the waterside portion of the proposed project would include in-water activities, such as pile driving. In addition, waterside construction would create temporary overwater shading in the project site from construction equipment within the marine community.

As described under Threshold 1, construction of the landside portion of the proposed project—the development of the GB Capital Component and Bayshore Bikeway Component—would require demolition or grading equipment for site preparation, construction cranes for installation of the hotels, and standard construction equipment, such as earth-moving equipment, concrete trucks, and forklifts. Operation of the landside portion of the GB Capital Component would result in new hotels and structures for tourist/visitor-serving commercial development, RV sites, and expanded recreational facilities, such as the Bayshore Bikeway Component.

The proposed project would implement one of three Bayshore Bikeway Routes. Bayshore Bikeway Component Routes 1 and 3 would occur partially within sensitive natural communities. Currently, Route 3 is the City's preferred alignment. As described in Section 4.3.2, *Existing Conditions*, a portion of the GB Capital Component's landside area would occur within sensitive vegetation communities. Based on the sensitivity, rarity, and potential for special-status species, the areas mapped as southern coastal salt marsh, open water, and saltpan/mudflats would be considered ESHAs. CDFW does not classify areas of Diegan coastal sage scrub (including restored, disturbed, and Baccharis-dominated forms) as a sensitive vegetation community, but these areas are considered an ESHA per the CCC.

Construction

Terrestrial

Construction of the proposed project would involve grading for one of the three Bayshore Bikeway Routes and construction of the GB Capital Component. Impacts on sensitive natural communities are identified in Table 4.3-7. The Diegan coastal sage scrub onsite, although composed of native upland habitat, is isolated from other coastal sage scrub stands and supports a low diversity of plant species. The revegetated Diegan coastal sage scrub would not be considered rare or especially valuable because it was planted. Likewise, the coastal sage scrub dominated by Baccharis is also of low quality because of the presence of disturbance-adapted broom baccharis (*Baccharis sarothroides*) and low species diversity. Regardless, the CCC considers Diegan coastal sage scrub to be an ESHA. As a result, impacts on coastal sage scrub would be considered significant (**Impact-BIO-11**) due to the potential for these areas to support special-status species.

In addition, the construction of Bayshore Bikeway Component Route 1, if that alignment is selected, would affect 0.03 acre of southern coastal salt marsh, which is an increasingly rare sensitive natural community. Impacts on this sensitive natural community would be significant absent mitigation (**Impact-BIO-12**).

Marine

Location of eelgrass habitat is shown in Figure 4.3-6. Potential impacts on eelgrass productivity during construction of the proposed project could occur as a result of direct physical disturbance from anchoring and staging of equipment. Furthermore, temporary indirect impacts associated with shading from construction-related equipment and elevated turbidity levels from construction-related activities, such as pile driving (**Impact-BIO-13**) may occur. Figure 4.3-6 provides an overview of these impacts within Sweetwater Channel.

The waterside project elements, including, without limitation, floating docks, boat slips, and moorings, of the GB Capital Component would require a CWA Section 401 Water Quality Certification to ensure that turbidity, which can cause some species to be lost temporarily and create space for other species to colonize, is minimized during construction. A full discussion of the permit requirements and water quality objectives for the project is found in Section 4.8, *Hydrology and Water Quality*. In addition to Section 401 of the CWA, the proposed project would be required to comply with Section 10 of the Rivers and Harbors Act, which prohibits the obstruction or alteration of navigable WoUS without a USACE permit. Although temporary impacts from suspended solids in the water column would be expected, impacts related to resuspension of sediments would be reduced to a less-than-significant level with compliance with CWA Section 401 Water Quality Certification and Section 10 of the Rivers and Harbors Act.



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Figure 4.3-6
Eelgrass Habitat
National City Bayfront Projects & Plan Amendments EIR

Operation

Terrestrial

As identified under Threshold 1, operation of Bayshore Bikeway Component Route 1, if this alignment is selected, would potentially indirectly affect sensitive coastal salt marsh vegetation as a result of pedestrians or cyclists traveling off-trail from the Bayshore Bikeway Component. Unauthorized access to this area has the potential to disturb this community through trampling and the spread of invasive species from propagules. Impacts on southern coastal salt marsh would be significant (**Impact-BIO-8**), and mitigation would be required.

Marine

The proposed dock, as part of the GB Capital Component within Sweetwater Channel, would cause new shading over a portion of the eelgrass beds located east of the entrance to Pier 32 Marina. The introduction of shade could affect eelgrass beds significantly by reducing available sunlight, thus reducing primary productivity, further reducing loss of food for some species, shelter for some species, and foraging habitat for California least terns and other piscivorous birds (**Impact-BIO-10**) (Appendix G). Shading also reduces available sunlight for primary production from phytoplankton and other nearby algal species, which affects native aquatic wildlife species that depend on these food sources.

Proposed boat docks and aquaculture facilities associated with the GB Capital Component would be located over water that is within City and District jurisdictions. Eelgrass growing along the shoreline where the vessel dock is proposed would be shaded by the dock structures and, therefore, would be lost. Proposed in-water elements would result in impacts from shading associated with docks, moorings, and aquaculture facilities. It is assumed that 1.88 acres of eelgrass would be affected (Appendix G).

Operation of the floating dock associated with the GB Capital Component would not only reduce the areas of open water, but would also increase boat traffic to the area. With this increased boat traffic, there would be a potential physical impact through physical disturbance from boaters, further affecting eelgrass productivity.

Implementation of the aquaculture facilities may involve the culture of oysters or other shellfish, which would require an “off bottom” method, with the shellfish in floating or suspended containment structures. The structures and the shellfish within would shade the bottom and therefore displace eelgrass. The level of impact would be dependent on the placement and area of such structures (**Impact-BIO-15**).

Additionally, the installation of new piles to create the marina would affect burrowing invertebrates that live within the soft sediments. These invertebrates would be displaced as the soft-bottom habitat itself would be displaced by the piles. However, the loss of unvegetated soft-bottom habitat would be limited to the footprint of each pile used; moreover, the piles would replace the benthic habitat with hard substrate and vertical structure for other organisms. Sessile invertebrates and algae would colonize these hard structures, which would also attract fish and mobile invertebrates. Given that hard-bottom structures are habitat for different organisms relative to soft-bottom habitats, the structures would increase biological diversity overall at the piles and within the immediate area surrounding the piles. Thus, although there would be a loss of unvegetated soft-bottom habitat, there would be a net gain in overall habitat and higher value habitat through the physical structure of the floating dock. Therefore, the overall loss of a small number of invertebrates

is considered less than significant, particularly when considered with the anticipated increase in biodiversity.

Level of Significance Prior to Mitigation

Implementation of the proposed project would have a substantial adverse effect, either directly or through habitat modifications, on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW, NMFS, or USFWS. Potentially significant impact(s) include the following.

Impact-BIO-11: Potential Loss of Diegan Coastal Sage Scrub During Project Construction (GB Capital Component and Bayshore Bikeway Component Route 1 and Route 3). Construction activities, such as grading, have the potential to remove Diegan coastal sage scrub (including restored and baccharis-dominated forms). The potential reduction in Diegan coastal sage scrub would be significant.

Impact-BIO-12: Potential Loss of Coastal Salt Marsh During Project Construction (Bayshore Bikeway Component Route 1). Construction activities, such as grading, have the potential to remove coastal salt marsh habitat during construction of Bayshore Bikeway Component Route 1. The potential reduction in coastal salt marsh habitat would be significant.

Impact-BIO-13: Potential Reduction in Eelgrass Habitat and Productivity During Construction (GB Capital Component). In-water construction activities have the potential to affect eelgrass beds within the waterside portion of the GB Capital Component. Impacts may include direct physical disturbance to the beds from anchoring and staging of equipment, temporary shading from construction-related equipment, and elevated turbidity levels from construction-related activities such as pile driving. The potential reduction in eelgrass habitat would be significant.

Impact-BIO-14: Potential Loss of Eelgrass Habitat Due to Overwater Coverage or Shading Impacts During Operations (GB Capital Component). Operations associated with the waterside portion of the GB Capital Component have the potential to affect eelgrass beds due to shading of eelgrass habitat from overwater structures, including the floating dock and docked vessels. This impact would be potentially significant.

Impact-BIO-15: Potential Loss of Eelgrass Habitat Due to Operation of Aquaculture Facilities (GB Capital Component). Operations associated with aquaculture within the channel may involve the culture of oysters or other shellfish, which would require an "off bottom" method with the shellfish in floating or suspended containment structures. The structures and the shellfish within would shade the bottom and therefore displace eelgrass. This impact would be potentially significant.

Mitigation Measures

For **Impact-BIO-11**:

> **MM-BIO-10: Provide Compensatory Mitigation for Impacts on Coastal Sage Scrub (GB Capital Component and Bayshore Bikeway Component Route 1 and Route 3).** Compensation for permanent impacts on Diegan coastal sage scrub habitats shall occur at a minimum 1:1 ratio, with compensation occurring as creation, enhancement, or restoration. The compensation can occur through a combination of one or more of the following: onsite enhancement, re-establishment, or creation; or payment into an agency-approved in-lieu fee,

mitigation program, or other approved mitigation provider. Compensation type and final mitigation ratios shall be determined during the project's coastal development permitting phase. Temporary impacts on Diegan coastal sage scrub habitats shall be replaced at a 1:1 ratio through onsite restoration. Onsite, in-kind restoration of temporarily affected Diegan coastal sage scrub would occur at their current locations on completion of construction, consisting of returning affected areas to original contour grades, decompacting the soil, and replanting with hydroseeding or container plantings using a plant palette composed of native species from the local region prior to disturbance. All revegetated areas shall avoid the use of any nonnative plant species.

For any areas that shall be restored, enhanced, or created onsite, the project proponent (e.g., National City for Bayshore Bikeway; GB Capital, etc.) shall prepare a Habitat Mitigation and Monitoring Plan (HMMP) prior to project construction in accordance with requirements of the CCC. The HMMP shall outline all required components, including, but not limited to, a project description, goal of the mitigation, mitigation site, implementation plan, monitoring plan, completion of mitigation/ success criteria, and contingency measures. The HMMP shall address the onsite restoration of temporary impact areas and compensatory mitigation at on- or offsite areas to mitigate for permanent impacts.

For **Impact-BIO-12**:

MM-BIO-11: Provide Compensatory Mitigation for Impacts on Coastal Salt Marsh Habitat (Bayshore Bikeway Component Route 1). If Bayshore Bikeway Component Route 1 is chosen, then prior to issuance of a Coastal Development Permit, the project proponent of Bayshore Bikeway Component shall request and participate in stakeholder meetings with applicable agencies (e.g., CCC, NMFS, CDFW, USFWS, RWQCB, USACE, and the District) to identify locations within the San Diego region to mitigate impacts on coastal salt marsh habitat. All feasible efforts to avoid impacts on coastal salt marsh shall be made during final project design. If avoidance cannot be accomplished for Bayshore Bikeway Component Route 1, then areas for onsite restoration or enhancement within the Paradise Marsh shall be prioritized for the required compensatory mitigation. Prior to the commencement of construction activities, the project proponent shall demonstrate that compensatory mitigation for impacts on coastal salt marsh have been secured at mitigation ratios agreed on by the appropriate resource agencies and that all agency concerns have been addressed. Typical mitigation ratios for coastal salt marsh habitat are 2:1 to 3:1, depending on site conditions at both the impact site and mitigation site.

For **Impact-BIO-13**, **Impact-BIO-14**, and **Impact-BIO-15**:

MM-BIO-12: Develop an Eelgrass Mitigation and Monitoring Plan in Compliance with the California Eelgrass Mitigation Policy (GB Capital Component). Prior to the start of any in-water construction, the project proponent shall retain a qualified marine biologist to develop an eelgrass mitigation plan in compliance with the California Eelgrass Mitigation Policy. The mitigation plan shall be submitted to the District and resource agencies for approval and shall be implemented to compensate for losses to eelgrass in the event that the surveys described below indicate the project affected eelgrass. Preconstruction eelgrass surveys would occur in the future when construction and project design details are available, which would require supplemental environmental review. The specific eelgrass mitigation plan elements shall include the following:

- Prior to the commencement of any in-water construction activities, a qualified marine biologist that the project proponent retains and the District approves shall conduct a preconstruction eelgrass survey per the California Eelgrass Mitigation Policy. Surveys for eelgrass shall be conducted during the active eelgrass growing season (March–October), and results shall be valid for 60 days, unless completed in September or October; if completed in those months, results shall be valid until resumption of the next growing season. The qualified marine biologist shall submit the results of the preconstruction survey to the District and resource agencies within 30 days.
- Within 30 days of completion of in-water construction activities, a qualified marine biologist that the project proponent retains and the District approves shall conduct a postconstruction eelgrass survey during the active eelgrass growing season. The postconstruction survey shall evaluate potential eelgrass impacts associated with construction. On completion of the postconstruction survey, the qualified marine biologist shall submit the survey report to the District and resource agencies within 30 days.
- At least 2 years of annual postconstruction eelgrass surveys shall be conducted during the active eelgrass growing season. The additional annual surveys shall evaluate the potential for operational impacts on eelgrass. Specifically, the surveys shall be designed to evaluate potential shading impacts noted in the project's marine biological assessment (Appendix G).
- In the event that impacts on eelgrass are detected, the project proponent shall implement the following:
    - A qualified marine biologist that the project proponent retains for the GB Capital Component and the District approves shall develop a mitigation plan for in-kind mitigation per the California Eelgrass Mitigation Policy. The qualified marine biologist shall submit the mitigation plan to the District and resource agencies within 60 days following the postconstruction survey.
    - Mitigation for eelgrass impacts shall be at a ratio of 1.2:1, and the project proponent shall determine eelgrass mitigation sites prior to the commencement of construction activities.
    - Mitigation shall commence within 135 days of any noted impacts on eelgrass, such that mitigation commences within the same eelgrass growing season that impacts occur.
- Upon completing mitigation, the qualified biologist shall conduct mitigation performance monitoring at performance milestones of 0, 12, 24, 36, 48, and 60 months. The qualified biologist shall conduct all mitigation monitoring during the active eelgrass growing season and shall avoid the low-growth season (November–February). Performance standards shall be in accordance with those prescribed in the California Eelgrass Mitigation Policy (Appendix G).
- The qualified biologist shall submit the monitoring reports and spatial data to the District and resource agencies within 30 days after the completion of each monitoring period. The monitoring reports shall include all of the specific requirements identified in the California Eelgrass Mitigation Policy (Appendix G).

MM-BIO-13: Implement Overwater Coverage Mitigation Through the USACE Permitting Process in Consultation with CCC, NMFS, USFWS, RWQCB, and the District to Compensate for Loss of Open Water Habitat and Function (GB Capital Component). The waterside GB Capital Component within Sweetwater Channel shall require implementation of regulatory agency-approved mitigation prior to implementation of the project to reduce overwater coverage. This may include reduction in overwater coverage at another location in San Diego Bay, restoration of upland riparian habitats, restoration of submerged aquatic vegetation, water quality-improvement techniques, restoration of soft-bottom habitats, such as mud flats, or use of mitigation bank credits or credits from the USACE permit for the construction of the marina from uplands or paying an in lieu fee (once a program is developed). Detailed shading studies would be required in the future when construction and project design details are available, which would require supplemental environmental review. The project proponent shall conduct the shading studies and implement the following:

- Prior to issuance of a Coastal Development Permit, the project proponent (i.e., GB Capital) shall request a pre-application meeting with the USACE, in consultation with CCC, NMFS, USFWS, RWQCB, and the District, to identify locations within San Diego Bay or the San Diego region to mitigate impacts on both sensitive avian species and nearshore habitat associated with loss of beneficial uses associated with overwater coverage and loss of open water-habitat function as a result of increased structural fill within San Diego Bay.
- Prior to the commencement of construction activities of the waterside improvements of the GB Capital Component, the project proponent shall implement mitigation options that the regulatory agencies identified above review and approve.
- The project proponent shall secure all applicable permits for the mitigation of overwater coverage prior to commencement of waterside construction.

Level of Significance After Mitigation

Implementation of **MM-BIO-10** would mitigate for impacts (**Impact-BIO-11**) on Diegan coastal sage scrub, and implementation of **MM-BIO-11** would mitigate for impacts on southern coastal salt marsh (**Impact-BIO-12**) to less-than-significant levels by requiring the project proponent to provide assurances for the provision of compensatory mitigation at ratios agreed on by the resource agencies. Implementation of **MM-BIO-12** and **MM-BIO-13** would reduce shading impacts on eelgrass during construction and operation (**Impact-BIO-13, Impact-BIO-14,** and **Impact-BIO-15**) to less-than-significant levels by mitigating any loss of eelgrass habitat at a ratio of 1.2:1, as prescribed in the California Eelgrass Mitigation Policy, and requiring mitigation to be reviewed and approved by appropriate resource agencies.

Threshold 3: Implementation of the proposed project would have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means.

Impact Discussion

Terrestrial

Paradise Marsh is located directly east of the project site. According to the jurisdictional delineation Dudek for the project prepared (see Appendix G), there are approximately 7.94 acres of jurisdictional wetlands and waters within the project site. Direct impacts on jurisdictional wetlands and waters associated with the proposed project include permanent impacts on 0.03 acre of USACE/RWQCB/CCC-jurisdictional wetlands (i.e., southern coastal salt marsh) if the proposed Bayshore Bikeway Component Route 1 is implemented.

No impacts on USACE/RWQCB/CCC-jurisdictional wetlands (i.e., southern coastal salt marsh) would occur from implementation of two of the potential Bayshore Bikeway Component alignments, including the City's preferred alignment (Route 3), nor from implementation of any of the other project components. All impacts on jurisdictional wetlands and waters would require permitting under the Rivers and Harbors Act (Section 10), CWA (Section 401, 404), and CCA. Because these permits would require compensatory mitigation and resource-specific avoidance and minimization measures, a substantial adverse impact on these federally protected wetlands and waters would be avoided, and impacts would be less than significant.

Construction of Bayshore Bikeway Component Route 1, as well as some components of the GB Capital Component, would occur directly adjacent to Paradise Marsh and its associated southern coastal salt marsh habitat. Construction of these components could result in potential short-term indirect impacts on southern coastal salt marsh habitat, including "edge effects," such as dust, erosion, and runoff. District projects greater than 1 acre are required to comply with the State's Construction General Permit (CGP). The CGP requires SWPPP development and implementation, sediment-control and erosion-control BMP implementation, as well as regular inspections and reporting. Standard construction BMPs identified and construction-related minimization measures, such as minimization of exposure time of disturbed soil areas scheduling, wind-erosion control, silt fencing, and vehicle and equipment cleaning to control dust, erosion, and runoff, would be implemented to reduce potential impacts associated with all development components of the proposed project. In addition, all project grading would be subject to standard restrictions, such as BMPs and requirements that address erosion and runoff, and would meet requirements established by the federal CWA and NPDES, and preparation of an SWPPP would be required as described in Section 4.8, *Hydrology and Water Quality*. As such, indirect, construction impacts on USACE/RWQCB/CCC-jurisdictional wetlands (i.e., southern coastal salt marsh) would be less than significant.

Potential long-term indirect impacts on jurisdictional wetlands and waters could include trampling by pedestrians/cyclists traveling off-trail and invasion by exotic plants through the spread of invasive plant species into areas adjacent to Bayshore Bikeway Component Route 1 during operation. These impacts would be reduced to less than significant through construction of a fence along the edge of the marsh, which is part of the project design of Bayshore Bikeway Component Route 3, and required mitigation (**MM-BIO-8**, described above) if Bayshore Bikeway Component

Route 1 is chosen. As a result, no significant impacts on this jurisdictional wetland features would occur.

Marine

The proposed dock, as part of the GB Capital Component, would result in placement of permanent structures (e.g., piles) within Sweetwater Channel. Installation of new piles to create the marina would be considered "fill" and would be regulated by USACE under the CWA and the CCC under the CCA. The project proponent would be required to address these impacts during the environmental review and permitting phase and comply with any compensatory mitigation required as part of this permitting. Because these permits would require compensatory mitigation and resource-specific avoidance and minimization measures, a substantial adverse impact on these federally protected wetlands and waters would be avoided, and impacts would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not have an adverse effect on state- or federally protected wetlands (e.g., marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means. All impacts on jurisdictional wetlands and waters would require permitting under the Rivers and Harbors Act (Section 10), CWA (Section 401, 404), and CCA. Because these permits would require compensatory mitigation and resource-specific avoidance and minimization measures, a substantial adverse impact on these federally protected wetlands and waters would be avoided, and impacts would be less than significant.

Mitigation Measures

No additional mitigation measures are required.

Level of Significance After Mitigation

All impacts on jurisdictional wetlands and waters would require permitting under the Rivers and Harbors Act (Section 10), CWA (Section 401, 404), and CCA. Because these permits would require compensatory mitigation and resource-specific avoidance and minimization measures, a substantial adverse impact on these federally protected wetlands and waters would be avoided, and impacts would be less than significant.

Threshold 5: Implementation of the proposed project would not conflict with any applicable local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance or with the provisions of an applicable adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

Impact Discussion

The applicable local land use plans, policies, ordinances, or regulations of the District, adopted for the purpose of protecting biological resources, are the PMP, San Diego Unified Port District Code, and the District's INRMP. The District and the U.S. Navy Southwest Division maintain and implement the INRMP, which catalogues the plant and animal species around San Diego Bay and identifies habitat types with the purpose of ensuring the long-term health, recovery, and protection of San

Diego Bay's ecosystem in concert with economic, Naval, recreational, navigational, and fishery needs. The goal of the INRMP is "to provide direction for the good stewardship that natural resources require, while supporting the ability of the Navy and District to achieve their missions and continue functioning within San Diego Bay" (District 2013).

Through the implementation of **MM-BIO-1** through **MM-BIO-10** outlined in Thresholds 1 and 2, the landside and waterside components of the proposed project would not conflict with the INRMP because the project would be taking the necessary steps to avoid impacts on sensitive species and protect and enhance sensitive habitats, such as eelgrass, which adheres to the objectives outlined in the INRMP.

In addition to the INRMP, local habitat, species, and biological resources are protected under the *National City General Plan – Agriculture and Open Space Element* policies. Mitigation measures **MM-BIO-1** through **MM-BIO-10**, above, would ensure that the proposed project is consistent with the *National City General Plan*.

The City is not a participating agency in the San Diego Multiple Species Conservation Program. Therefore, development within City limits, including the proposed project, is not required to demonstrate compliance with the Multiple Species Conservation Program. No other local policies or ordinances protecting biological resources apply to the proposed project. Therefore, the proposed project would not conflict with local policies or ordinances protecting biological resources, and impacts would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not conflict with any applicable local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance or with the provisions of an applicable adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Impacts would be less than significant.

Section 4.4

Cultural Resources, Tribal Cultural Resources, and Paleontological Resources

4.4.1 Overview

This section describes the existing cultural resources that could be adversely affected by the proposed project and the applicable laws and regulations related to cultural resources. It concludes with an analysis of the project's effect on historical resources, archaeological resources, tribal cultural resources, and paleontological resources.

For purposes of CEQA, cultural resources are referred to as *historical resources, archaeological resources*, or *unique archaeological resources*. *Historical resources* consist of intact built environment resources with demonstrable historical significance (Section 15064.5(a)(1–4)). Built environment resources that qualify as historical resources are generally 50 years old or older, unless it can be demonstrated that sufficient time has passed to understand the significance of a resource less than 50 years old (California Code of Regulations [CCR] Title 14, Chapter 11.5, Section 4852(d)(2)). *Archaeological resources* include prehistoric resources (pre-contact with Europeans) and historic resources (post-contact Native American and European) of an archaeological nature with demonstrable significance (Section 15064.5(a)(1–4)). CEQA also uses the term *unique archaeological resources* to denote archaeological artifacts, objects, or sites that are not considered historical resources but that do contain information needed to answer important scientific research questions, have a special and particular quality, or are directly associated with an important prehistoric or historic event or person (Section 21083.2(g)).

Table 4.4-1 summarizes the significant impacts and mitigation measures discussed in Section 4.4.5.3, *Project Impacts and Mitigation Measures*.

Table 4.4-1. Summary of Significant Cultural Resources Impacts and Mitigation Measures

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance after Mitigation	Rationale for Finding after Mitigation
Impact-CUL-1: Relocation of Granger Hall Has the Potential to Result in a Substantial Adverse Change in the Significance of a Historical Resource (Balanced Plan)	**MM-CUL-1:** Prepare and Implement Granger Hall Relocation and Rehabilitation Plan for Building Relocation and Reuse in Accordance with the Secretary of the Interior's Standards for Rehabilitation (Balanced Plan)	Less than Significant	By requiring protective measures during the relocation of Granger Hall, **MM-CUL-1** would prevent inadvertent damage to the building and avert potential impacts on the resource's integrity of design, materials, workmanship, feeling, and association. This would ensure that the building retains its extant character-defining features following relocation.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance after Mitigation	Rationale for Finding after Mitigation
Impact-CUL-2: Excavation Related to the Proposed Project Would Potentially Damage Significant Archaeological Resources (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component)	**MM-CUL-2:** Prepare and Implement a Cultural Resources Monitoring and Discovery Plan (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component)	Less than Significant	Monitoring by a qualified archaeologist of all ground-disturbing activities in the archaeologically sensitive portion of the project site would significantly reduce the potential of damage or loss of unknown subsurface archaeological resources.
	MM-CUL-3: Prepare and Implement Cultural Resources Awareness Training Prior to Project Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component)	Less than Significant	The preparation and implementation of Cultural Resources Awareness Training would minimize the potential for workers to unintentionally damage, or cause the loss of, unknown subsurface archaeological resources.
	MM-CUL-4: Conduct Archaeological Monitoring in Areas of Sensitivity (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component)	Less than Significant	Monitoring by a qualified archaeologist of all ground-disturbing activities in the archaeologically sensitive portion of the project site would significantly reduce the potential of damage or loss of unknown subsurface archaeological resources.
	MM-CUL-5: Conduct Native American Monitoring in Areas of Sensitivity (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and	Less than Significant	Monitoring by a Native American of all ground-disturbing activities in the archaeologically sensitive portion of the project site would significantly reduce the potential of damage or loss of unknown subsurface archaeological resources, including tribal cultural resources.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance after Mitigation	Rationale for Finding after Mitigation
	Bayshore Bikeway Component)		
Impact-CUL-3: Excavation Related to the Proposed Project Would Potentially Damage Tribal Cultural Resources (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component)	**MM-CUL-2** through **MM-CUL-5**	Less than Significant	**MM-CUL-2** through **MM-CUL-5**
Impact-CUL-4: Excavation Related to the Proposed Project Would Potentially Disturb Buried Paleontological Resources (City Program – Development Component, Bayshore Bikeway Component)	**MM-CUL-6:** Conduct Paleontological Monitoring in Areas of Sensitivity (City Program – Development Component, Bayshore Bikeway Component)	Less than Significant	Monitoring by a qualified paleontologist of any ground-disturbing activities that would occur 10 feet or more below ground surface would significantly reduce the potential to directly or indirectly destroy a unique paleontological resource.

4.4.2 Existing Conditions

Unless otherwise referenced, the information in this section summarizes the paleontological, prehistoric archaeological, ethnographic, and historic contexts developed in the cultural resources technical study for the project. That study, *Cultural Resources Inventory and Evaluation Report for the National City Bayfront Projects and Plan Amendments, National City, California* (ICF 2019), is included as Appendix I. It includes extensive references to primary and secondary sources that have informed the summarized background conditions provided herein. Chapter 3 of Appendix I also provides a detailed definition of the cultural resources study area for the project. The cultural resources study area includes the project site west of Interstate (I-) 5, as well as the current site of Granger Hall. Granger Hall is currently approximately 2 miles northeast of the project site. Figures 4.4-1a and 4.4-1b illustrate the project's cultural resources study area.

4.4.2.1 Prehistoric Setting

The prehistoric occupation of San Diego County has been documented as extending back at least 10,000 years or earlier. The prehistory of the region is generally divided into three chronological periods (Paleoindian, Archaic, and Late Prehistoric), which have been further divided into other periods or renamed based on technological and or geographic variations. The earliest well-documented archaeological sites in the region are identified as belonging to the Paleoindian period, which has locally been termed the San Dieguito complex and is believed to have lasted until 8,000 years before present. During this period the economy is seen to be focused on highly ranked resources such as large mammals and relatively high mobility, which may be related to following big game. Artifacts associated with this time period reflect this focus on hunting and include large knives and spear points, small scrapers, and choppers, but with scant evidence for groundstone technology for processing vegetal products such as seeds or acorns.

Approximately 8,600 years ago the economic focus of prehistoric people began to become more diverse while still focused on hunting and gathering. This period is generally known as the Archaic Period or the La Jolla/Early Millingstone complex locally and lasted until roughly 1,300 years before present. This period is differentiated from the Paleoindian Period by a shift to a more generalized economy and increased focus on processing vegetal remains such as seeds and berries and exploiting marine resources along the coast. These shifts in technology and resource exploitation may have occurred as populations moved in response to a change in climatic conditions. The Archaic Period is reflected in the artifact assemblage with an increase in the number of groundstone artifacts such as manos and portable metates, atlatl points, large Pinto and Elko series bifaces, and core-based tools.

The Late Prehistoric Period, sometimes referred to as the Late Archaic Period, is marked by the movement of Yuman-speaking people from the eastern deserts into Southern California around 2,000–1,500 years ago. As with the earlier periods, archaeologists have defined distinctive complexes for the Late Prehistoric Period prehistoric cultures of the area. Two complexes have been defined for the protohistoric occupants of the area. The “San Luis Rey” complex is identified in the southern Orange County, western Riverside County, and northern San Diego County areas, and the “Cuyamaca” complex is identified in southern San Diego County. Those of the latter (Cuyamaca, Yuman) are believed to be the ancestors of the Hokan-speaking Diegueño or Kumeyaay (Ipai/Tipai) occupying southern San Diego County at contact. The demarcation line between the San Luis Rey complex and the Cuyamaca complex is believed to be near the historical separation of the tribal territories of the Luiseño/Juaneño and Diegueño. It is highly unlikely, however, that the boundary remained static over time. During Late Prehistoric times, the project area would have been within the area commonly associated with the archaeologically defined Diegueño or Kumeyaay (Ipai/Tipai) people. A shift to cremation in burial practices was one change differentiating the Late Prehistoric Period from earlier periods. Described below, other changes involved site location choices and tool and ornament types.



Figure 4.4-1a
Cultural Resources Study Area
National City Bayfront Projects & Plan Amendments



\\PDCCITRDSGIS2\Projects_4\Port_of_San_Diego\00152_17_NatCity_Bayfront_EIR\Figures\Doc\EIR\CulturalMapdocs\Report_Figures\Fig_04b_StudyArea.mxd; User: 19423; Date: 10/7/2019

Figure 4.4-1b
Cultural Resources Study Area
National City Bayfront Projects & Plan Amendments

4.4.2.2 Ethnographic Setting

The Kumeyaay who inhabited the southern part of San Diego County, western and central Imperial County, and northern Baja California are the direct descendants of the of the early Yuman-speaking hunter-gatherers of the Late Prehistoric Period. The Kumeyaay appear to have had considerable variability in the level of social organization and settlement. The Kumeyaay were organized according to patrilineal, patrilocal lineages that claimed prescribed territories but did not generally own the resources in these territories. The Kumeyaay occupied semi-sedentary villages during the year and would occupy residential bases in the foothills/mountains during the summer and at lower elevations in the winter, with numerous campsites throughout as they sought out seasonally available resources. Acorns were the most important staple of their diet as indicated by the presence of numerous large habitation sites near the locations of abundant oaks and bedrock suitable for milling. Smaller game, grass seeds, sages, berries, wild greens, and fruits were also important food resources. Houses were usually only built for the winter and were conical-shaped structures covered with tule bundles or willow and had excavated floors and central hearths. Houses and campsites are believed to have been relatively dispersed with no formal layout or discrete boundaries for structures or campsites. Both pottery and basketry were utilized in addition to stone tools. Religious activities were practiced with the assistance of a shaman.

The arrival of Spanish missionaries and soldiers in 1769 began a period of Euroamerican exploration and settlement that would forever alter the Kumeyaay way of life. Dual outposts of the Presidio de San Diego and Mission San Diego de Alcalá were established at Old Town near the village of Cosoy. The Mission system used Native American labor to build a footing for greater European settlement, which resulted in the introduction of horses, cattle, agriculture, and new construction materials, methods, and styles. In 1774, the mission was moved 5 miles east, closer to the Kumeyaay village of Nipaguay in Mission Valley. The Kumeyaay were generally resistant to Spanish attempts to coerce them into the Euroamerican culture, but the change in location of the mission enabled the priests to gain more converts. As the Spanish gained influence many of the Kumeyaay became resentful, and this culminated in the sacking and burning of the mission in 1775.

Mexico won its independence from Spain in 1821, and the missions were secularized in 1834. While most Spanish laws and institutions remained intact, the mission lands were divided, and large tracts of land (referred to as ranchos) were given to individuals and families. Cattle ranching and other agricultural activities were the focus of the economy. During the Mexican Period the Pueblo of San Diego (which included the present project area) was established on some 48,000 acres of the ex-mission lands, and many of the Kumeyaay who lived near the pueblo center and mission were dispersed as they were deprived of their land. As the new owners took possession of the ranchos most Native Americans retreated away from the settlements while a few provided menial labor on the ranchos. However, because of the low population of Euroamericans, the Kumeyaay were able to maintain a strong degree of autonomy outside of the rancho system.

The Mexican period ended when Mexico ceded nearly half of its land, including California, to the United States after the cessation of the war between the two countries in 1848. Soon after, gold was discovered in California and the tremendous influx of Americans and people of many nations quickly diluted much of the Hispanic cultural influences. The further division of land by the U.S. government and squatting by white settlers deprived Native Americans of their traditional lands and resources. After the Civil War ended in 1865 San Diego County saw a huge increase in the number of settlers seeking land, and Native Americans were continually marginalized and forced off their land onto

land that was not suitable for subsistence. By the 1870s the situation was very desperate for the Native Americans of San Diego County, and the U.S. government was slow to act. It was not until 1875 that 10 reservations were finally established in San Diego County.

4.4.2.3 Historic Setting

Spanish Period

The Spanish Period in San Diego began in 1769 with the establishment of a settlement on Presidio Hill. It consisted of a presidio (fort) and a chapel that also served as Alta California's first mission. Although San Diego was one of the least successful missions in the chain of California missions, it firmly established Spain's presence in the region. During this period, Spanish colonists introduced new agricultural goods and implements, as well as new forms of architecture and methods of building construction. The project vicinity was known as La Purísma ("the most pure") until 1795 when Presidio of San Diego soldiers laid claim to the area and officials renamed it El Rancho Del Rey ("the King's Ranch"). As threats both from within and without increasingly undermined political stability, Spanish colonists maintained an ultimately tenuous grip on the region. As indigenous populations declined dramatically due to disease, overwork, and the missions' campaigns to end native ways of life, instances of native resistance to Spanish authority multiplied. These problems were of little interest to officials in Spain, however, as the country was embroiled in European conflict while declining as a major power.

Mexican Period

Mexico's independence from Spain in 1821 marked the beginning of the Mexican period in San Diego County, which lasted until the end of the Mexican-American War in 1848. Former Presidio soldiers become civilian residents and populated the newly established Pueblo of San Diego. Transportation routes were expanded and economic activity was primarily centered upon agriculture and livestock-raising. In 1834, Governor José Figueroa issued a proclamation secularizing the missions and ushering in the Rancho Era. Approximately 500 private land grants were made under Mexican rule, redistributing the missions' large grazing holdings mainly to officials and retired soldiers. In 1845, Governor Pío Pico granted El Rancho del Rey to his sister's husband, Don Juan (John) Forster. Forster, an Englishman who had originally come to San Diego in 1833 to sell imported Chinese goods, renamed the 26,631 acres as Rancho de la Nacíon ("National Ranch").

National City's Founding and Early Development

The American Period began at the close of the Mexican-American War in 1848, when Mexico ceded California to the United States. In 1856, Don Juan Forster sold Rancho de la Nacíon to a pair of San Francisco bankers who in turn sold the rancho to the Kimball brothers in 1868. Frank, Warren, and Levi Kimball purchased the land for $30,000 and renamed the area National Ranch before subsequently changing it again to National City. The Kimball brothers built a wharf on the Bay, cleared and surveyed the land, and began selling home sites. These developments led to the incorporation of National City in 1887.

In addition to spearheading the early development of National City, Frank Kimball played a leading role in San Diego–area railroad development. Kimball signed over 10,000 acres to the Atchison, Topeka & Santa Fe Railroad (Santa Fe) and agreed to sell the railroad interests another $100,000

worth of land to facilitate development of the California Southern Railroad. Kimball did this in exchange for a commitment to locate the California Southern shops at National City. Constructed in 1882 and subsequently restored, National City's Santa Fe Railway Depot stands today within the cultural resources study area at 922 West 23rd Street.

Additional railroads were developed in the late 1880s. Incorporated in 1886, the National City & Otay Railroad (NC&O) built one of these through National City. In 1888 the Coronado Railroad Company completed the Coronado Belt Line, which is discussed in more detail below. Eventually acquired by John D. Spreckels, the Coronado Belt Line and the NC&O would be subsumed into the San Diego and Arizona Railway in the 1910s and renamed the San Diego & Arizona Eastern Railway in 1933.

The end of the 1880s land boom, and then the nationwide depression that accompanied the Panic of 1893, stymied economic growth in the region. Over the long term, however, agriculture flourished around late nineteenth- and early twentieth-century National City. Cultivation of lemon orchards became the leading agricultural enterprise. Locals also produced grapefruit, oranges, olives, guavas, strawberries, figs, apricots, peaches, pears, and ornamental trees. Local fruit production soon supported a thriving packing industry.

Granger Hall

The economic hard times that followed the 1880s boom caused the value of Frank Kimball's property and investments to plummet. Kimball was forced to begin selling property. Ralph Granger, a newcomer from Colorado who made a fortune in silver mining, purchased Kimball's Paradise Valley orchard land east of central National City and made the property his home. A yacht and horse racing enthusiast, Granger also developed a deep interest in music. He commissioned San Diego's most renowned pre-World War II architect, Irving Gill, to construct a music hall on his estate in 1898. Gill employed his expertise in acoustics and designed the building that would become known as Granger Hall. Granger Hall was relocated from its original Paradise Valley (National City) location to its current location on East 4th Street near I-805 in 1969.

Coronado Belt Line, 1888–1900

Railroad financier Elisha S. Babcock and piano manufacturer Hampton L. Story created the Coronado Beach Company in 1884 with an objective to acquire the 4,185-acre Peninsula of San Diego rancho grant and develop the land into a resort town. They contracted architects James and Meritt Reed to design today's iconic Hotel del Coronado at Coronado Beach. In 1886, Babcock and Story created two transportation enterprises to serve the hotel: the San Diego Street Car Company, which transported people from the city's transcontinental railroad depot to the wharf at the location of today's Broadway Pier, and the San Diego and Coronado Ferry Company, which conveyed visitors across San Diego Bay to the company's Coronado landing on Orange Avenue. In November 1886, they founded the Coronado Beach Railroad in order to build a line from the ferry landing to the hotel site. In March 1887, Babcock and Story completed a second line for steam locomotives from the ferry landing along the edge of Glorietta Bay to the hotel's power plant. By December of that year, they had extended this second line down the peninsula at a distance of 7.6 miles.

In 1888, Babcock and Story reorganized their railroad enterprise into the Coronado Railroad Company and proceeded to connect their existing line down the peninsula and around San Diego Bay to downtown San Diego. Completed in June 1888, the 20.3-mile Coronado Belt Line was one of

multiple local short lines constructed in the San Diego area during the Southern California real estate boom. In addition to it and the NC&O, those short railroad lines included the Ocean Beach Railroad; the San Diego, Old Town and Pacific Beach Railroad; the San Diego, Cuyamaca and Eastern Railway; and the Park Belt Motor Road. Most people traveled to the Hotel del Coronado on the Orange Street line from the ferry landing, although special passenger excursions from Los Angeles and San Francisco occasionally traveled the Coronado Belt Line around the Bay to Coronado. The Belt Line's main purpose was to transport building materials and freight.

In terms of volume of freight carried and financial performance through the turn of the century, the Coronado Belt Line performed averagely compared to the region's other short lines. Although it averaged $50,000 in annual revenue from 1888 to 1892, with the collapse of the Southern California real estate boom and the economic depression that followed the Panic of 1893, the Coronado Belt Line operated at a loss during the late 1890s. Even before the Panic of 1893, Babcock had sought investment in his enterprises from the sons of sugar magnate Claus Spreckels: John D. and Adolph B. Spreckels. The Spreckels brothers first acquired Story's interests and then gained controlling shares in the Coronado Beach Company, the Coronado Railroad, and the San Diego Streetcar Company. The reorganized streetcar company became the San Diego Electric Railway Company (SDERC), which electrified the line from the ferry landing to the Hotel del Coronado in 1893. As John D. Spreckels became the most powerful force in the San Diego economy, he would integrate the Coronado Belt Line into a changing and expanding system of local railroads controlled by his interests.

National City in the Twentieth Century

After the United States entered World War I in 1917, the first West Coast Marine Corps Advance Base, the Naval Hospital, and Rockwell Field (later the North Island Naval Air Station) were established in San Diego. After the war, San Diego became the home of the Pacific Destroyer Force when the Destroyer Base (today's Naval Base San Diego) was opened on the harbor waterfront at the corporate boundary between San Diego and National City. By the mid-1920s, the federal government had completed or begun San Diego's Naval Training Station, the Marine Corps Recruit Base, the Naval Radio Station, the Fleet Fuel Depot, the U.S. Coast Guard Base, and Fort Rosecrans.

During the 1920s, federal investment in naval facility development and operation became the largest factor in the economies of San Diego and immediately surrounding communities, generating an economic boom that in turn led to increased non-military infrastructural development. National City's population grew from 3,116 in 1920 to 7,301 in 1930, and reached 10,344 in 1940.

Although development slowed during the economic depression of the 1930s, National City and other greater San Diego–area communities experienced dramatic growth following American entry into World War II in 1941. World War II enhanced the role that the U.S. Navy played in the local economy. By 1947, the Navy's active-duty personnel and civilian employees made up 51% of San Diego's total labor force. The defense industry would continue to help drive growth in San Diego and surrounding communities after the war.

Coronado Belt Line in the Twentieth Century

In 1906 John D. Spreckels organized the San Diego and Arizona Railway Company to construct a railroad line from Arizona to San Diego in order to capitalize on San Diego's geographical position as the United States' closest Pacific Ocean port to the Panama Canal, then under construction. After acquiring the NC&O in 1906, Spreckels endeavored to achieve a monopoly over local San Diego rail

service. Spreckels' interests separated the Coronado Railroad Company's steam and electric lines, and the SDERC acquired the latter. Spreckels' NC&O initially leased the Coronado Belt Line track and then merged with the Coronado Railroad Company to become the San Diego Southern Railway Company. The NC&O was fitted exclusively for electric service, primarily passenger trolleys, and the Coronado Belt Line remained a steam engine railroad. The San Diego Southern Railway Company would operate at a loss through 1912, when Spreckels' interests merged it with the San Diego, Cuyamaca, and Eastern Railway Company to form the San Diego and South Eastern Railway Company (SD&SE).

The SD&SE as a whole did not succeed financially and lost $513,640.41 between 1912 and 1917. As the Coronado Division of the SD&SE, the Coronado Belt Line continued to function mainly as a freight line. SD&SE revenues declined approximately 30% for both freight shipments and passenger service from 1913 to 1915, at least in part as a result of competition from automotive buses and trucks. Storms and flooding in 1916 severely damaged the Coronado Belt Line and other rail lines in the county. Floodwaters from the collapsed Sweetwater and Otay Dams washed out much of the SD&SE Southern Division's Coronado Belt Line and former NC&O lines. The SD&SE opted to abandon the NC&O right-of-way, salvage its track, and bring the Coronado Belt Line back to life. The company rebuilt the washed-out track using what was salvaged and repaired or reconstructed the severely damaged trestles along the Coronado Belt Line. Wartime shipments helped the Coronado Belt Line to generate marginal profits. However, poor financial performance continued to plague the rest of the SD&SE. By the end of 1917, the San Diego and Arizona Railway Company had acquired the SD&SE. By 1918, former NC&O track had replaced the approximately 6.5-mile original segment of the Coronado Belt Line track between downtown San Diego and National City, which was abandoned.

The 1920s and 1930s brought changes to the uses of the Coronado Belt Line and its ownership. In 1925, as a result of conversion to passenger buses, the SDERC ceased electric passenger service along the line to the south of 24th Street in National City. In 1930 the SDERC discontinued electric passenger service between National City and San Diego. The Great Depression severely curtailed the performance of the Coronado Belt Line and other local short lines across the United States. In 1933 the heirs of John D. Spreckels, who had died in 1926, sold the SD&SE to the Southern Pacific Railroad, which reorganized the company into the San Diego, Arizona and Eastern Railway Company (SD&AE).

Apart from shipping salt produced at the Western Salt Works, military investment and the rise of the associated defense industry in the San Diego area made ongoing operation of the Coronado Belt Line viable, at least for a time. After the U.S. Army Air Corps vacated its facility at North Island in 1935, the U.S. Navy acquired the property, more than doubled its size, and established its Naval Air Station there. In 1940, Frederick H. Rohr moved his fledgling company, Rohr Aircraft Corporation, to Chula Vista and established a plant along the Bay. Rohr shipped components for its manufacturing operations to its plant over the Coronado Belt Line, but the company also shipped many of its products by truck. These developments during the latter 1930s and 1940s meant that freight shipments on the Coronado Belt Line primarily included construction materials for military development, and machine parts, ammunition, fuel oil, and gasoline for military operations.

The SD&AE continued to be a losing enterprise financially despite the increase in rail shipments due to World War II. Although the Korean War similarly boosted freight shipments during the years 1950–1953, the Coronado Belt Line soon ceased to be financially sustainable. When the Navy ended shipments on the line, the SD&AE removed the Silver Strand segment's track and sold it for reuse.

During the 1960s the original Coronado Belt Line and main SD&AE line in Chula Vista remained intact, but most of the track along F Street, Broadway, and segments farther east was covered by pavement or removed. The County of San Diego purchased most of the SD&AE from the Southern Pacific in 1979, and the Metropolitan Transit Development Board (now known as Metropolitan Transit System) subsequently assumed operating and acquisition rights over the railroad.

4.4.2.4 Paleontological Setting

Four geologic units are found within the project area: artificial fill, young alluvial flood plain, Bay Point Formation, and Lindavista Formation.

Artificial fill deposits result from human construction, mining, or quarrying activities and include compacted engineered and non-engineered fill. Holocene alluvial flood plain deposits (mapped as Qya by Kennedy and Tan [2008]) occur in modern canyons and floodplains. Artificial fill is located in the area generally west of the historic mean high tide line – the western half of the GB Capital Component, the western two-thirds of the Marine-Related Industrial area (Parcels B4 and B5 of the Balanced Plan), the entirety of Pepper Park, the first point of rest area, Tidelands Avenue South of 32nd Street, and the Pasha Road Closures Component. Holocene alluvial deposits are usually less than 10,000 years old and consist of poorly consolidated, poorly sorted, permeable floodplain deposits of sandy, silty, or clay-bearing alluvium. These deposits are generally in the eastern half of the GB Capital Component, the eastern third of the Marine-Related Industrial area, the City Program – Development Component, and the majority of the Bayshore Bikeway Component. Portions of the cultural resources study area nearest to I-5 are underlain by Bay Point Formation, a geological stratum consisting of nearshore marine and lagoonal deposits of the Pleistocene age (approximately 10,000 to 750,000 years old). Specifically, the deposits of the Bay Point Formation are situated atop the Nestor terrace (approximately 120,000 years old). Within the cultural resources study area these deposits are approximately between Marina Way and I-5 starting on the western side of the northern half of Paradise Marsh and extending north to approximately 18th Street in National City. The Bay Point Formation is mapped as Unit 6, old paralic deposits (Qop_6) by Kennedy and Tan (2008). Marine and/or non-marine terrace deposits of the early to middle Pleistocene-age (1.5 to 0.5 million years old) Lindavista Formation are present within the Granger Hall portion of the cultural resources study area near I-805 and 4th Street (San Diego Natural History Museum 2018).

4.4.3 Existing Cultural Resources

In addition to the general prehistoric, ethnographic, and historic setting discussion provided above, ICF conducted records searches, Native American outreach, and site visits to identify archaeological resources and built environment resources within a quarter mile of the project site. The discussion below outlines the methodology for these activities and the results.

4.4.3.1 Methodology

The effort to identify historical resources in the project site included records searches of previous cultural resource investigations and recorded sites, background research, and a review of literature and maps, including Sanborn Map Company fire insurance maps, historical aerial photographs, and historic U.S. Geological Survey topographic maps, with relevance to the prehistory, ethnography, and history of the terminal site and proposed project vicinity; and site visits. The cultural resources

study area consists of mostly developed properties and public right-of-way situated on the west side of I-5 at the National City Bayfront. An additional, smaller portion of the non-contiguous cultural resources study area containing Granger Hall, a historically significant building that may be relocated to a site within the cultural resources study area as part of the project, is approximately 2 miles northeast of the cultural resources study area. Professionally qualified archaeologists and architectural historians undertook site visits to survey the cultural resources study area for archaeological and intact architectural and built environment resources on October 1 and 26, 2018, and on July 12, 2019. The Granger Hall portion of the cultural resources study area is thoroughly developed with buildings, structures, paving, and landscaping, and was therefore not subject to an archaeological survey. The survey results and analyses of potentially significant archaeological and built environment resources are detailed in the cultural resources technical study for the proposed project, which can be referenced in Appendix I. That information is summarized below.

Records Search

ICF obtained records searches for the cultural resources study area from the South Coastal Information Center, which is part of the California Historical Resources Information System (CHRIS) that serves as the repository for cultural resources records in the state of California. Records searches conducted on April 24, 2017, October 3, 2018, April 7, 2020, and May 1, 2020, cover the cultural resources study area, including the project site west of I-5 and the current site of Granger Hall, and a quarter-mile radius surrounding the cultural resources study area.

There are 25 previously recorded cultural resources within a quarter-mile radius of the cultural resources study area, which includes the project site west of I-5, as well as the existing Granger Hall site to the east of I-5. Of these, 22 are intact buildings and structures that fall under the category of built environment resources. The remaining three are archaeological sites that include one reported prehistoric shell midden, one historic-period refuse dump, and the historical location of the Hercules Powder Company. Only one of these previously recorded archaeological resources—the reported shell midden (CA-SDI-07454)—intersects the cultural resources study area. There are four built environment resources that intersect the cultural resources study area. They include three previously recorded built environment resources listed in the CHRIS: the Coronado Belt Line (P-37-013073), the Atchison, Topeka & Santa Fe Railway (P-37-024739), and the National City Santa Fe Depot (P-37-020167/P-37-028795). The National City Santa Fe Depot is listed on the National Register of Historic Places (NRHP). One other built environment resource within the cultural resources study area, Granger Hall, is also listed on the NRHP, but not identified as a cultural resource within the CHRIS.

Native American Outreach

On September 26, 2018, ICF contacted the Native American Heritage Commission (NAHC) requesting a review of its Sacred Lands File. The NAHC responded on October 10, 2018, stating that the Sacred Lands File failed to indicate the presence of Native American cultural resources in the cultural resources study area. The NAHC also provided a list of 25 Native American individuals and organizations that may have knowledge of cultural resources in the cultural resources study area. On October 11, 2018, ICF sent outreach letters to all 25 individuals and organizations identified by the NAHC. The letters described the proposed project and requested information on cultural resources in or near the cultural resources study area. Follow-up emails were sent in November and December of 2018. To date, replies have been received from three recipients. The Viejas Band of

Kumeyaay Indians and the Kumeyaay Cultural Repatriation Committee requested the presence of a Kumeyaay tribal monitor during ground disturbance. The Sycuan Band of the Kumeyaay Nation also responded, requesting to meet with the District and City and requesting the presence of a Kumeyaay tribal monitor during ground disturbance activities associated with the project. On October 24, 2019, ICF and District and City staff met with tribal representative Kristie Orozco of the Sycuan Band of the Kumeyaay Nation to discuss the project and the tribe's concerns and recommendations. On November 20, 2019, the District sent an email to Ms. Orozco with proposed mitigation measures and requested comments from the tribe on the mitigation measures. The District also invited Ms. Orozco to a site visit. As of September 2021, no response has been received. The Native American correspondence is documented in Appendix A of the cultural resources technical study (Appendix I) prepared for the project.

4.4.3.2 Results

Archaeological Resources

As noted above, the records search identified one previously recorded prehistoric resource intersecting the bayfront cultural resources study area, CA-SDI-07454, a reported shell midden. This resource was recorded by Roeder in 1979 based on the report of a local schoolteacher, Maria Cruz, who described a shell midden exposed by railroad cuts south of 24th Street (now Bay Marina Drive) in National City. The site was recorded by Roeder as extending 600 feet in 1979, and the accompanying site map did not fully delineate the extent of the site boundary. The site boundary delineated by the South Coastal Information Center is larger than that described by Roeder, presumably to create a buffer that might encompass any potential shell midden deposits. The site location was revisited in 2002; however, the survey team could find no evidence of the site within the survey area at that time (Ballester 2002). During the pedestrian survey for the cultural resources technical study prepared for this EIR, no indication of site CA-SDI-07454 was identified within or adjacent to the recorded site boundary either at the surface or by investigating exposed soils in the cut slopes within the site boundary. Based on the current survey, as well as results from the 2002 survey, the portion of the site within the bayfront cultural resources study area appears to have been destroyed either through natural processes or modern disturbances. Nevertheless, this area should be considered sensitive for cultural resources.

On October 26, 2018, archaeologists conducted a pedestrian survey of the cultural resources study area for the cultural resources technical study prepared for this EIR. The survey resulted in the identification of two historic-period archaeological resources within the cultural resources study area: Isolate P-37-039520, a National Geodetic Survey marker; and site P-37-039519, a historic-period deposit of burned debris in a flat area along the Coronado Belt Line embankment to the west and Paradise Marsh to the east. Site P-37-039519 is adjacent to the former National City Dump/ Davies Dump. Varying in density along its 775-foot length, this deposit is marked by notably ashy sediments and burned debris (pressed glass, bottle glass, fragments of wood, and some burned and rusted mechanical parts) mixed with fire bricks, fire brick fragments, and slag. A secondary deposit of bricks and large redwood timbers was identified to the west of the grade in a flood channel. As part of the cultural resources technical study for the proposed project, isolate P-37-039520 and site P-37-039519 were formally evaluated and found ineligible for California Register of Historical Resources (CRHR) listing. Those evaluations are included in Confidential Appendix B of the cultural resources technical report (Appendix I) prepared for this project.

Architectural and Built Environment Resources

Four built environment resources 45 years of age or older were identified within the cultural resources study area. Two previously evaluated historic-period railroad resources, the Coronado Belt Line (P-37-013073) and the Atchison, Topeka & Santa Fe Railway (P-37-024739), were re-evaluated for purposes of this EIR and found ineligible for listing on the CRHR. Those re-evaluations are available for reference in Appendix I. These two CRHR-ineligible resources are not analyzed for potential impacts below. Two historic-period buildings, Granger Hall and the National City Santa Fe Depot, are both listed on the NRHP and qualify as historical resources for the purposes of CEQA. The historical significance and integrity of both resources are described briefly below and documented in Appendix I. Analysis of potential impacts on Granger Hall and the National City Santa Fe Depot from the proposed project is provided below in Section 4.4.5.3, *Project Impacts and Mitigation Measures*.

Granger Hall



Figure 4.4-2. Primary Elevation of Granger Hall, Camera Facing Northwest

Description

Originally sited to face west, Granger Hall now faces south onto East 4th Street in National City. It rests on a concrete block foundation that is not original to the building. Clad with faded red-painted shake shingles, the one-story, T-shaped hall features two entrances along its primary (south) elevation: one toward the west and one toward the east. Concrete steps provide access to the main entrance while a concrete ramp aligned east to west along the building's exterior provides access to the performers' entrance. Each entrance features an open gabled porch with decorative, curved rafters and brackets. Non-original vertical posts buttress the bracketed porches. A hipped roof caps the building and decorative, curved rafters support the roof's shallow eaves. Four dormers, each facing a cardinal direction, are at the western portion of the hall and adorned with diamond-light windows to provide interior lighting. Like the main roof, the dormer roof presents a shallow pitch

with decorative, curved rafters providing support. Two boarded-up oval windows punctuate the south and north elevations.

A brick chimney with decorative brickwork at its terminus divides the west elevation, which lacks fenestration. A shallow U-shaped dormer, as mentioned above, contains multiple diamond-light windows. Visible from the west elevation, the western portion of the rear (north) elevation features a rectangular projecting volume with a low-pitched shed roof at a lower height than the building's overall height. In addition to the boarded-up oval windows, the north elevation also incorporates three, four-over-four, single-hung windows. A non-original concrete staircase provides access to the single pedestrian door on the east elevation.

The building's interior features a wooden organ screen and stage to the east, wooden wainscot siding, unadorned walls, a painted ceiling, and a raised, open room to the west. The ceiling's painting depicts Euterpe, the Goddess of Music, with a simple, raised garland border. A rectangular grille and balustrade offset the west room. The west room contains panels of glass inset in the ceiling, which diffuse the natural light produced by the roof dormers. Two doors on the northern wall of this western portion lead to small rooms, whose interiors have been substantially altered.

Significance and Integrity

Granger Hall was inscribed into the NRHP on March 18, 1975. The NRHP nomination accounted for the building's relocation to its current location and its new position facing south instead of its original west orientation. The nomination form did not specify the NRHP significance criteria that applied to the listing. Granger Hall does not appear to be associated with a specific event or pattern of events significant to our history (Criterion A). Additionally, while Ralph Granger played a major role in the construction and patronage of the building, the building does not appear to be significant for its associations with Granger (Criterion B). However, the resource has architectural significance that clearly meets Criterion C. Designed by master architect Irving Gill, Granger Hall features his "innovative simplicity," which resulted in the building's "uncluttered natural beauty." The building also incorporates acoustical design elements intended to optimize musical performance (Hoffman 1973:3). As a property listed on the NRHP, Granger Hall is also automatically listed in the CRHR. It qualifies as a historical resource for the purposes of CEQA.

For purposes of updating the status of Granger Hall, two professionally qualified architectural historians surveyed the exterior and interior of the building on October 1, 2018. Although in a state of moderate deterioration, Granger Hall retains sufficient integrity to convey its significance under NRHP Criterion C. The exterior of Granger Hall presents minimal shake loss and severe roof damage, and its two porches have been stabilized with the addition of non-original posts. The interior of the hall displays similar deterioration. Part of the ceiling plaster has failed, with several portions either dangling from the ceiling or collapsed on the floor. In addition, the survey identified at least one broken window, missing glass pieces in the western room, a damaged balustrade, and missing fireplace features. Since its 1975 listing in the NRHP, a floral patterned carpet covers the original wood floor. A California Historical Resources Status Code of "1S- individual property listed in the [NRHP] by the Keeper. Listed in the [CRHR]" is assigned to Granger Hall. Overall, the Granger Hall building retains sufficient historical integrity to convey its historical significance. Furthermore, it has been confirmed in the field survey that Granger Hall continues to qualify as a historical resource for the purposes of CEQA.

National City Santa Fe Depot



Figure 4.4-3. Primary (East) and South Elevations of National City Santa Fe Depot Building, Camera Facing Northwest

Description

Constructed in 1882, the subject two-story railroad depot building faces east toward the intersection of West 23rd Street and Harrison Way (now Marina Way). The building fronts the alignment of the 1880s California Southern Railroad—later the Santa Fe—the development of which occasioned the building's construction. The Italianate-style rectangular-shaped building has a low-pitched hipped roof with shallow boxed eaves featuring paired molded brackets. The roof has a center and asphalt shingles. Brick chimneys pierce the southern and northern portions of the roof. Molded horizontal string courses and vertical corner courses accent the exterior shiplap cladding.

The east elevation, which now functions as the front elevation, is accessed at a warehouse entry with a restored sliding wood door and a shaped pediment featuring a rosette. Tall, narrow, wood-framed double-hung sash windows punctuate the east elevation—six across the second floor and two at the northern portion of the first floor. These and other windows feature wood surrounds capped by pediments with rosettes. Two of the same types of windows are situated at the second story of the south elevation above two smaller first-story windows. The north elevation has a pair of adjacent entries with original wood frames, three-light transoms, and non-original four-panel wood doors. It also features six windows matching the larger windows found on other elevations—two at the western portion of the first floor and four across the second floor. The west elevation could not be accessed during field surveys conducted on October 1, 2018, and July 12, 2019. Bird's-eye aerial views and views from a substantial distance during the survey indicate that its second story has seven windows matching the larger windows on other elevations. The southernmost of these windows has been restored to replace a non-original entry since the building was listed on the NRHP. The first story has three of these windows and several entries: a northerly entry matching the entries at the north elevation, a wider central entry with a two-leaf door and a pediment-capped

five-light transom, and a larger southerly warehouse door matching the sliding warehouse door found on the east elevation.

Significance and Integrity

Known popularly as the National City Santa Fe Depot, the subject building was listed in the NRHP as the "Station and General Office, California Southern Railroad" on April 18, 1996, with a period of significance of 1882–1889. The building has significance under Criterion A because it is the West Coast terminus of the Santa Fe's transcontinental railroad and the last surviving West Coast terminus station of the five major railroads in the West. As an excellent example of the Italianate style and the last example of a commercial building embodying the style in San Diego's South Bay region, the building also meets Criterion C. The building is automatically listed in the CRHR by virtue of its listing in the NRHP.

Two professionally qualified architectural historians surveyed the exterior and interior of the building on October 1, 2018. The building is in good condition and has a high degree of historical integrity. Several of the building's windows and entries have been restored since it was listed in the NRHP in 1996. It continues to convey its significance under NRHP Criteria A and C. The depot building has a California Historical Resources Status Code of "1S- individual property listed in the [NRHP] by the Keeper. Listed in the [CRHR]." The resource is also California Registered Historical Landmark No. 1023, "National City Depot, Transcontinental Railroad." Overall, therefore, the National City Santa Fe Depot building retains sufficient historical integrity to convey its historical significance. It continues to qualify as a historical resource for the purposes of CEQA.

4.4.4 Applicable Laws and Regulations

4.4.4.1 State

Public Resources Code Section 21083.2 (CEQA) and 5024.1 (California Register of Historical Resources)

CEQA requires public agencies to evaluate the implications of their project(s) on the environment and includes significant historical resources as part of the environment. According to CEQA, a project that causes a substantial adverse change in the significance of a historical resource or a unique archaeological resource has a significant effect on the environment (State CEQA Guidelines 15064.5, Public Resources Code [PRC] Section 21083.2).

CEQA defines a substantial adverse change as follows.

- Physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired
- Demolition or material alteration of the physical characteristics that convey the resource's historical significance and justify its designation as a historical resource

Public agencies must treat any cultural resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant (14 CCR 15064.5). A historic resource is considered significant if it meets the definition of historical resource or unique archaeological resource.

The term *historical resource* includes but is not limited to any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California (PRC Section 5020.1(j)). Historical resources may be designated as such through three different processes.

1. Official designation or recognition by a local government pursuant to local ordinance or resolution (PRC Section 5020.1(k))
2. A local survey conducted pursuant to PRC Section 5024.1(g)
3. Listing in or eligibility for listing in the NRHP (PRC Section 5024.1(d)(1))

The process for identifying historical resources is typically accomplished by applying the criteria for listing in the CRHR (14 CCR 4852). The CRHR is very similar to the NRHP program. It was enacted in 1992, and its regulations became official January 1, 1998. The CRHR is administered by the Office of Historic Preservation and was established to serve as an authoritative guide to the state's significant historical and archaeological resources (PRC Section 5024.1). State law provides that in order for a property to be considered eligible for listing in the CRHR, it must be significant under any of the following four criteria, which parallel NRHP criteria.

1. Is the property associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage?
2. Is the property associated with the lives of persons important in our past?
3. Does the property embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of a master, or possesses high artistic values?
4. Has the property yielded, or may be likely to yield, information important in prehistory or history?

To be considered a historical resource for the purposes of CEQA, the resource must also have *integrity*, which is the authenticity of a resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance.

Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. It must also be judged with reference to the particular criteria under which a resource is eligible for listing in the CRHR (14 CCR 4852(c)).

Resources listed in the NRHP are automatically included in the CRHR.

Assembly Bill 52 (Chapter 532, Statute of 2014)

Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014) establishes a formal consultation process for California Native American tribes as part of CEQA and equates significant impacts on tribal cultural resources with significant environmental impacts (PRC Section 21084.2). PRC Section 21074 defines tribal cultural resources as follows.

- Sites, features, places, sacred places, and objects with cultural value to descendant communities or cultural landscapes defined in size and scope that are:

  - Included in or eligible for listing in the CRHR; or
  - Included in a local register of historical resources.
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1.

Sacred places can include Native American sanctified cemeteries, places of worship, religious or ceremonial sites, and sacred shrines. In addition, both unique and non-unique archaeological resources, as defined in PRC Section 21083.2, can be tribal cultural resources if they meet the criteria detailed above. The lead agency relies upon substantial evidence to make the determination that a resource qualifies as a tribal cultural resource when it is not already listed in the CRHR or a local register.

AB 52 defines a "California Native American Tribe" as a Native American tribe in California that is on the contact list maintained by the NAHC (PRC Section 21073). Under AB 52, formal consultation with tribes is required prior to determining the level of environmental document if a tribe has requested to be informed by the lead agency of proposed projects and if the tribe, upon receiving notice of the project, accepts the opportunity to consult within 30 days of receipt of the notice. AB 52 also requires that consultation, if initiated, address project alternatives and mitigation measures for significant effects, if specifically requested by the tribe. AB 52 states that consultation is considered concluded either when the parties agree to measures to mitigate or avoid a significant effect on tribal cultural resources, or when either the tribe or the agency concludes that mutual agreement cannot be reached after making a reasonable, good-faith effort. Under AB 52, any mitigation measures recommended by the agency or agreed upon with the tribe may be included in the final environmental document and in the adopted mitigation monitoring program if they were determined to avoid or lessen a significant impact on a tribal cultural resource. If the recommended measures are not included in the final environmental document, then the lead agency must consider the four mitigation methods described in PRC Section 21084.3(e). Any information submitted by a tribe during the consultation process is considered confidential and is not subject to public review or disclosure. It will be published in a confidential appendix to the environmental document unless the tribe consents to disclosure of all or some of the information to the public.

Health and Safety Code 7050.5/Public Resources Code 5097.9

Health and Safety Code 7050.5 addresses the protection of human remains discovered in any location other than a dedicated cemetery and makes it a misdemeanor for any person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law, except as provided in PRC Section 5097.99. It further states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined that the remains are not subject to the provisions concerning investigation of the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in PRC Section 5097.98. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC. Whenever the NAHC receives

notification of a discovery of Native American human remains from the county coroner, it shall immediately notify those people if believes to be the Most Likely Descendants of the deceased Native American. The descendants may inspect the site of the discovery and make recommendations on the removal or reburial of the remains.

California Government Code Section 6254(r) and 6254.10

California Government Code Sections 6254(r) and 6254.10 of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to "Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission." Section 6254.10 specifically exempts from disclosure requests for "records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency."

California Public Resources Code 5097.5

California PRC 5097.5 addresses paleontological resources and states that no one will "knowingly and willfully excavate, remove, injure, or deface any vertebrate paleontological site, including fossilized footprints, or any other paleontological feature situated on public lands without the expressed permission of the public agency having jurisdiction over the land." In addition to PRC 5097.5, determination of significant impacts on unique paleontological resources is included in Appendix G of the State CEQA Guidelines (Environmental Checklist Form) used to prepare a CEQA Initial Study.

4.4.4.2 Local

The City maintains an official Historic Properties List, but it does not have formal significance criteria for designating resources for addition to the Historic Properties List. Under the City's LUC, Section 18.12.160, properties may be nominated for local designation to the Historic Properties List by resolution of the City Council or through application by property owner, and the National City Historical Society is invited to submit comments to be included in the staff report and recommendation to the Planning Commission. The Planning Commission then holds a public hearing on the nomination and makes a recommendation to the City Council, which holds an additional public hearing prior to making a final decision. The City also periodically updates a local historic properties survey. Owners of properties included in the survey are encouraged to nominate their properties for inclusion in the Historic Properties List, which qualifies them for Mills Act Historical Property Contracts. However, the City has no formalized significance criteria to apply in evaluating built environment resources within the cultural resources study area of the proposed project.

4.4.5 Project Impact Analysis

4.4.5.1 Methodology

Impacts on historical resources are determined based on the sensitivity or significance of identified historical resources and the direct and indirect impacts that would result from project implementation. If direct or indirect impacts would occur on significant historical resources, mitigation measures would be required. Criteria to determine the significance of historical resources are summarized in Section 4.4.4, *Applicable Laws and Regulations*. Physical effects on historical resources typically include direct disturbance and/or destruction of a resource and occur during construction. Aesthetic effects on historical resources typically consist of indirect impacts, such as changes to the visual or auditory landscape. The demolition or substantial alteration of a historical resource would represent a significant impact.

For archaeological resources, potential impacts could occur that result in disturbance or destruction of previously recorded and/or undiscovered archaeological resources. The disturbance or destruction of archaeological resources would be considered a significant impact.

Impacts on existing religious or sacred uses include direct disturbance or destruction of historical resources that have religious or sacred value, or indirect impacts on the visual or auditory landscape, such as the construction of a building that blocks the view of an important landmark or use of operational equipment that consistently produces noise. Any direct or indirect impact on human remains would be considered a significant impact.

For paleontological resources, potential direct and indirect impacts associated with the proposed project were determined using the City of San Diego's CEQA Significance Determination Thresholds (City of San Diego 2016), which were developed based on consultation with experts from the San Diego Natural History Museum who have detailed knowledge of the location of paleontological resources within the region. These thresholds provide the basis for distinguishing between impacts that are significant (i.e., impact exceeds the threshold of significance) and those that are typically less than significant. If an impact exceeds the threshold of significance, mitigation measures are required where feasible.

4.4.5.2 Thresholds of Significance

The following significance criteria are based on Appendix G of the State CEQA Guidelines and provide the basis for determining the significance of impacts associated with cultural resources, tribal cultural resources, and paleontological resources resulting from implementation of the proposed project. The determination of whether an impact would be significant is based on the professional judgment of the District as lead agency in light of the evidence in the administrative record.

Impacts are considered significant if the project would result in any of the following.

1. Cause a substantial adverse change in the significance of a historical resource as defined by Section 15064.5 of the State CEQA Guidelines.
2. Cause a substantial adverse change in the significance of an archaeological resource as defined by Section 15064.5 of the State CEQA Guidelines.

3. Disturb human remains, including those interred outside of formal cemeteries.
4. Cause a substantial change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or an object with cultural value to a California Native American tribe and:
    a. Listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k), or
    b. A resource determined eligible by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5021.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.
5. Direct or indirect destruction of a unique paleontological resource or site or unique geologic feature.

The analysis of whether the proposed project would have a significant impact related to human remains under Threshold 3 is provided in Section V of the Initial Study/Environmental Checklist (Appendix A of the Draft EIR), which determined that the project would result in a less-than significant impact. The analysis and conclusions therein are incorporated by reference into this section of the Draft EIR and are summarized in Chapter 6, *Additional Consequences of Project Implementation*. Therefore, only Thresholds 1, 2, and 3 are discussed in the impact analysis that follows.

Supplemental Threshold for Paleontological Resources

Neither the District nor the City have formalized supplemental thresholds for assessing potential impacts on paleontological resources. To assist in the determination of significance related to the proposed project's impacts on paleontological resources, this EIR utilizes the City of San Diego's CEQA Significance Determination Thresholds methodology for determining significance. An answer in the affirmative to either of these questions would indicate a significant paleontological impact would occur and mitigation would be required.

Would the project:

1. Require over 1,000 cubic yards of excavation and over 10 feet deep in an area considered to have high paleontological sensitivity?
2. Require over 2,000 cubic yards of excavation and over 10 feet deep in an area considered to have moderate paleontological sensitivity?

No monitoring is required in areas with no or low paleontological sensitivity.

4.4.5.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

Impact Discussion

There are two historically significant structures, Granger Hall and National City Santa Fe Depot, that could be adversely affected by the proposed project.

Relocation of Granger Hall

An optional feature of the proposed Pepper Park expansion that is part of the Balanced Plan is the City-requested relocation of the City-owned Granger Hall for reuse as an event center. Under this optional project feature, Granger Hall would be relocated from its current location, along East 4th Street immediately west of I-805, to a new location south of 32nd Street and north of Sweetwater Channel. The building would be moved approximately 2.5 miles to the southwest to its proposed site. If implemented, the relocation of Granger Hall would be conducted following the recommendations and scope of relocation and restoration work presented in the relocation feasibility study for the property (Heritage Architecture & Planning 2017). This study, which was commissioned by the City, outlines how relocation of the building would involve demolition of its existing, non-historic foundation, porch platforms, steps, ramp, and railings. The existing chimney (which was previously reconstructed following the original chimney design) would be demolished prior to relocation. The building would be cut into three sections in preparation of the move: the original building volume (dating to 1896), comprising the Music Room, would be separated from the 1898 Performance Room; the Performance Room would furthermore be cut in two. To accommodate the building cuts, features at the cut locations (including wood handrail, ceiling sheathing, and wainscot) would be removed and cataloged for later reinstallation. Non-historic porch posts would be removed, and the porch roofs would be shored during relocation. The non-historic restroom wing and kitchen and storage rooms would be demolished. Non-historic site features (fountain, paving, outbuildings, and fencing) would also be removed.

Relocation of the building would be accomplished by transporting the three building portions to the receiving site via flatbed truck and barge. At the receiving site, the three portions would be reassembled on a new perimeter stem wall foundation with accessibility ramp. Wood entry steps to the front porch would be reconstructed to match the design of the original steps in this location. Additional work implemented across the building would restore its exterior and interior to good condition and to its historic appearance, including repairing windows and dormers, repainting the exterior, reconstructing the chimney according to its original design using bricks of historic dimensions, installing new restoration glass in window openings and skylights, replacing deteriorated exterior wall shingles in kind, replacing deteriorated rafter tails, and installing a new cedar shingle roof over new sheathing. A new porch would be built at the location of the demolished kitchen and storage rooms, similar in design to the building's historic porches. Interior work would remove non-historic finishes, refinish floors, and install new features (i.e., doors and light fixtures) that match the design of historic features that were previously removed. The project would restore the damaged ceiling plaster in the Performance Room involving new infill painting, as well as repair

decorative vent screens and wainscoting. The receiving site would be improved with new site features, including a new detached restroom building and new landscaping.

In addition to relocating Granger Hall, this optional project feature would require returning the building to use in its new location while preserving its historic design, material palette, interior configuration, and significant decorative elements in order to avoid significant impacts on the building. The project would remove only non-historic features and additions and would retain and repair historic elements unless they are deteriorated. For deteriorated features as well as for missing historic elements, replacement features would be selected and installed to match the design, finish/texture, and materials of the original, to the extent feasible, using documentary and physical evidence. Furthermore, the building would be separated and reassembled in its new location with minimal change to its historic materials and spatial arrangements, and historic materials removed from the building to accommodate its disassembly would be returned to their original locations. The building would retain its historic plan, roof form, cladding and roofing materials, windows and doors, exterior decorative elements, interior spatial configuration, and distinctive interior features such as the mural ceiling.

If Granger Hall were relocated to Pepper Park, as contemplated as an optional project feature to avoid a significant impact on Granger Hall, the building's essential physical characteristics that convey its historic design, materials, and workmanship would be required to be preserved. As a result of the required preservation, Granger Hall would continue to clearly express its original architectural character developed by master Southern California architect Irving Gill, which justifies the building's significance under NRHP/CRHR Criteria C/3. Furthermore, the preservation of the building's primary interior spaces (Music Room and Performance Room) and the facility's proposed use as an event venue would support continuity with its intended use and would support its historic feeling.

The proposed project would also alter Granger Hall's location and setting. The building was previously relocated in 1969 and is now situated adjacent to I-805 within a fenced site characterized by non-historic landscape features. As a result, the building did not retain integrity of location at the time of its 1973 nomination for NRHP listing. As presented in the NRHP bulletin, *How to Apply the National Register Criteria for Evaluation*, which is also typically used to inform CRHR evaluations, a moved resource cannot qualify for NRHP listing when certain conditions are met. However, the NRHP guidance specifies that a moved resource can be found eligible for listing in the NRHP (and by extension the CRHR) if it retains "enough historic features to convey its architectural values and retain integrity of design, materials, workmanship, feeling, and association" (National Park Service 2002). The analysis presented above describes that Granger Hall's significant architectural character would remain evident following its relocation, and it would continue to convey its design by Irving Gill. As a result, the change in the building's location and setting would not compromise any characteristics that justify its inclusion in the NRHP and CRHR.

Although the proposed relocation would involve activities to repair or replace deteriorated historic features and preserve significant materials and spatial relationships, it would still have the potential to cause inadvertent damage to susceptible elements of Granger Hall during its relocation. Information is not currently available regarding measures that would be undertaken to protect character-defining features, such as the interior organ screen and mural on plaster, from damage during relocation. It is possible that racking, vibration, or additional harmful conditions would be present during relocation that may cause structural or ornamental damage to the building, which may then further damage significant architectural elements and spaces and diminish the resource's

integrity of materials, workmanship, design, feeling, and association. Without appropriate measures in place, it is possible that the building could sustain damage to its character-defining features that is so severe that the restorative project activities presented above could not be implemented. As a result of the potential for inadvertent damage to the building during relocation, the project has the potential to materially alter physical characteristics that qualify Granger Hall for inclusion in the NRHP and CRHR (**Impact-CUL-1**). Therefore, the potential relocation of Granger Hall to Pepper Park as an optional feature of the Pepper Park expansion of the Balanced Plan (see Section 3.4.1.3 of Chapter 3) has the potential to result in a significant impact on a historical resource. Mitigation measure **MM-CUL-1**, preparing and implementing a Granger Hall Relocation and Rehabilitation Plan, would be necessary to ensure that potential impacts are reduced to a less-than-significant level.

National City Santa Fe Depot

Constructed in 1882 to serve the California Southern Railroad (later the Santa Fe), the National City Santa Fe Depot was listed in the NRHP in 1996 and is significant under Criterion A as the West Coast terminus of the Santa Fe's transcontinental railroad, and under Criterion C as the last example of a commercial building embodying the Italianate style in San Diego's South Bay region. Because the Santa Fe Depot is listed in the NRHP, it is automatically listed in the CRHR and qualifies as a historical resource under CEQA. Its period of significance is 1882–1889, representing the years in which the depot served as the Santa Fe's West Coast headquarters. As defined in the 1996 NRHP designation form, the boundary of the 1.3-acre NRHP- and CRHR-listed historical resource is the legal parcel containing the depot building, bound by Harrison Avenue (now Marina Way) to the east, an adjacent parcel to the north, the Santa Fe rail corridor to the west, and 24th Street (today's Bay Marina Drive) to the south. The historical resource boundary also contains a surface parking lot/ staging area to the north of the depot and a fenced area south of the depot where historic train cars are displayed. Despite being within the historical resource boundary, these adjacent areas do not contain features that contribute to the significance of the Santa Fe Depot. Historically, the depot contributed to a larger complex of railroad repair shops and other support facilities, which were demolished prior to its listing in the NRHP. As a result, the only feature in the vicinity of the resource that directly contributes to its NRHP- and CRHR-recognized significance is the adjacent Santa Fe rail corridor.

Implementation of the City Program – Development Component would not involve construction activities within the boundary of the historical resource, and none of the physical characteristics of the depot building that qualify it for inclusion in the NRHP and CRHR (such as its plan, massing, exterior materials, fenestration pattern, and decorative elements) would be directly altered. Additionally, the open character of yards north and south of the building, which are within the historical resource boundary but do not contain historic site features, would not change as a result of the project.

Changes to the setting of the historical resource may occur as a result of proposed development (Bayshore Bikeway Component and City Program – Development Component). One alignment of the Bayshore Bikeway Component under consideration, Route 1 (see Figure 3-21), would introduce a separated, paved bike path along the west side of Harrison Avenue (now Marina Way), where it would pass approximately 50 feet away from the east façade of the depot building before turning east along West 23rd Street. Additionally, the City Program – Plan Amendments Component proposes changes to land use controls that would rezone two City-owned blocks east of the Santa Fe Depot, immediately east of Harrison Avenue (now Marina Way) and south of West 23rd Street (the

block containing City Parcels 1–5 and the block containing City Parcel 6), to Tourist Commercial, which could lead to new hotel and/or other commercial uses within the setting of the Santa Fe Depot. For the purposes of the current analysis, it is assumed that a new hotel constructed on these blocks could reach five stories in height. This construction may occur approximately 60 feet east of the historical resource boundary and approximately 120 feet east of the east façade of the Santa Fe Depot. Both city blocks that may be redeveloped under the City Program – Development Component are currently vacant and do not contain any intact built environment resources that date to the depot's period of significance.

Route 1 of the Bayshore Bikeway Component would not substantially alter the immediate setting of the depot along Harrison Avenue (now Marina Way). Commercial construction under the City Program – Development Component would change the immediate setting of the Santa Fe Depot east of the resource. However, the change in setting to the east of the depot would not be so substantial so as to materially impair the historical and architectural significance of the resource. The change in the resource's setting would involve a minor improvement to the adjacent Harrison Avenue (now Marina Way) streetscape through the construction of a separated bike path and new commercial development on adjacent city blocks that would represent a denser development pattern than currently exists in the vicinity of the Santa Fe Depot. While adjacent construction would exceed the scale of the two-story Santa Fe Depot, new elements within the setting of the Santa Fe Depot would be identifiable as modern construction and would not remove or obscure any aspects of the resource's setting that assist the resource in conveying its significant original use and design.

The most important extant element of the Santa Fe Depot's historic setting, as related to its historical significance, is the alignment of the Santa Fe rail corridor immediately west of the resource, which had a direct functional relationship to the depot building during its period of significance, 1882–1889. No project activities would weaken the physical and visual relationships between the Santa Fe Depot and the adjacent rail corridor, allowing the resource to continue conveying its historically significant rail depot function that justifies its inclusion in the NRHP and CRHR under Criteria A/1. Furthermore, as no physical characteristics of the National City Santa Fe Depot would be altered, the resource would retain the materials and features that convey its Italianate architectural style and, therefore, its ability to express its significant architectural design recognized under NRHP/CRHR Criteria C/3. As a result, the Santa Fe Depot would not experience material impairment to its significance, and the impact under CEQA would be less than significant. No mitigation is required.

Construction activities associated with the proposed project (Bayshore Bikeway Component and City Program – Development Component) could reach the depot building. These include use of a vibratory roller as close as 90 feet from the building as part of Bayshore Bikeway Component construction (Route 1) and vibration-generating pile driving as close as 130 feet from the building's façade as part of the City Program – Development Component. If extensive, vibration impacts can damage the structure of a historic building, cause cracking in the foundation, and other issues. If these impacts were to occur, the historical integrity of the building would be compromised, which would be a significant impact.

For the purposes of this analysis, vibration damage thresholds and related building classifications are drawn from the California Department of Transportation's (Caltrans') most recent guidance on construction vibration assessment involving historic buildings (Caltrans 2013). Using the Caltrans guidance, the National City Santa Fe Depot's susceptibility to vibratory impacts is analyzed using damage thresholds for the "Historic and some old buildings" category (in contrast to the more

vibration-sensitive categories of "Fragile buildings" and "Extremely fragile historic buildings, ruins, ancient monuments," and the less vibration-sensitive categories of "Older residential structures," "New residential structures," and "Modern industrial/commercial buildings") (Caltrans 2013:38).

Based on the vibration analysis of the project detailed in Section 4.10, *Noise and Vibration*, construction activities would not generate vibration levels with potential to damage the National City Santa Fe Depot building. For this historical resource, the project's highest levels of anticipated construction vibration would involve pile driving associated with the City Program – Development Component. This construction activity would qualify as a "continuous/frequent intermittent" vibration source rather than a "transient or isolated" vibration source.[1] Measured in terms of inches per second (in/sec) peak particle velocity (PPV), the damage potential threshold for "Historic and some old buildings" is 0.25 PPV (in/sec) (Caltrans 2013:38). Pile driving at distances of 130 or more feet from the depot building is expected to generate vibration levels not exceeding 0.106 PPV (in/sec) at the building. Construction activity involving the use of a vibratory roller at distances of 90 or more feet from the depot building is expected to generate vibration levels not exceeding 0.051 PPV (in/sec). Construction vibration generated by the project would not, therefore, reach levels with potential to damage the depot building. As such, no mitigation is required.

Level of Significance Prior to Mitigation

The Bayshore Bikeway Component's proposed Route 1 and the City Program – Development Component are the two project elements in closest proximity to the National City Santa Fe Depot. Implementation of Route 1 of the Bayshore Bikeway Component and the City Program – Development Component would not alter the setting of the National City Santa Fe Depot so as to cause a substantial adverse change in the significance of the property. Impacts on the National City Santa Fe Depot as a result of proposed development in the vicinity of the building would be less than significant. Construction of the Bayshore Bikeway Component and the City Program – Development Component in the vicinity of the depot property would not reach levels high enough to potentially damage the building. No significant impacts on the National City Santa Fe Depot would occur.

In the absence of specified measures to protect Granger Hall's character-defining features during the proposed relocation, it is possible that the building could sustain damage so severe that relocation could potentially result in an adverse change in the significance of this historical resource without mitigation. As a result of the potential for inadvertent damage to the building during relocation, in the absence of mitigation this optional feature of the Pepper Park expansion could cause a substantial adverse change in the significance of a historical resource as defined in State CEQA Guidelines Section 15064.5. Potentially significant impact(s) include:

Impact-CUL-1: Relocation of Granger Hall Has the Potential to Result in a Substantial Adverse Change in the Significance of a Historical Resource (Pepper Park Expansion of Balanced Plan). It is possible that racking, vibration, or additional harmful conditions would be present during relocation that may cause structural or ornamental damage to the building. Measures to protect character-defining features such as the interior organ screen and mural on plaster have yet to be specified. Without appropriate protective measures in place, the building could sustain

[1] According to Caltrans Guidance (Caltrans 2013:38): "Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment."

damage to character-defining features severe enough to prohibit restoration. Impacts would be potentially significant.

Mitigation Measures

For **Impact-CUL-1**:

MM-CUL-1: Prepare and Implement Granger Hall Relocation and Rehabilitation Plan for Building Relocation and Reuse in Accordance with the Secretary of the Interior's Standards for Rehabilitation (Pepper Park Expansion of Balanced Plan).

The project proponent for relocation of Granger Hall to Pepper Park shall retain a team of qualified professionals to prepare and implement a Relocation and Rehabilitation Plan for Granger Hall. The team shall be led by a professionally licensed architect who also meets the Secretary of the Interior's (SOI's) Professional Qualification Standards as a Historic Architect (36 Code of Federal Regulations [CFR] Part 61). The team shall include a licensed structural engineer and a skilled contractor with demonstrated comparable experience relocating historic buildings and conducting associated protection and salvage work. Qualifications shall be demonstrated in the Relocation and Rehabilitation Plan. The architect, structural engineer, and contractor shall be approved by the District and City. The architect, structural engineer, and contractor shall draft the plan as specified below and submit the plan to the District and City for review and approval. To ensure that the building's character-defining features are retained, the architect shall consult the updated Relocation Feasibility Study (2017) for Granger Hall prepared by Heritage Architecture & Planning, and the Character-Defining Feature Inventory of Granger Hall (2018) prepared by ICF, which is Appendix C of Appendix I.

If the District or City do not have in-house expertise to review the Relocation and Rehabilitation Plan, they shall hire and oversee an SOI-qualified historic architect to review the plan and the project proponent shall pay for said expert. The Relocation and Rehabilitation Plan shall also be reviewed and approved by the District and the City Development Services Department and, prior to approval by the District and City, shall also be available for review and comment by interested local historic preservation groups. These reviews shall occur prior to the District's issuance of a Coastal Development Permit for any potential relocation of Granger Hall to Pepper Park, prior to the City's issuance of a Building Moving Permit and Transportation Permit, and prior to the commencement of any construction activities at the current site of Granger Hall.

The Relocation and Rehabilitation Plan shall ensure that Granger Hall shall be protected during the move and shall be moved without irreparable damage to its character-defining historic fabric. The plan shall include the following:

- **Shoring, Stabilization, Protection, and Demolition Procedures and Specifications**: the Relocation and Rehabilitation Plan shall include detailed procedures, drawings, and specifications prepared by the architect and structural engineer that specify methods and procedures of shoring, stabilization, and protection of historic elements, and demolition of non-historic elements. The Relocation and Rehabilitation Plan shall also outline each phase of work, the materials and equipment to be used, the extent of demolition and line cut locations, and transportation-related considerations such as the relocation route, street closures, and timing of the building relocation. The Relocation and Rehabilitation Plan shall be illustrated with architectural and structural drawings and include specifications detailing

clearly to the contractor the required methods and procedures for relocation of the building according to the SOI Standards for the Rehabilitation of Historic Properties.

- **Provisions for Character-Defining Architectural Elements to be Disassembled, Stored, and Reassembled at Relocation Site**: the Relocation and Rehabilitation Plan shall specify provisions for disassembling, cataloging, handling, transporting, protecting, and storing (at the relocation site) all character-defining architectural elements to be removed from the building prior to relocation and reinstalled at the Pepper Park relocation site.
- **Analysis of Project Conformance with SOI Standards for the Rehabilitation of Historic Properties**: the Relocation and Rehabilitation Plan shall include project drawings for the proposed rehabilitation and reuse of Granger Hall at the Pepper Park relocation site. The reviewing SOI-qualified historic architect shall prepare an SOI Standards Analysis of the project outlining the project's conformance with the SOI Standards for the Rehabilitation of Historic Properties. If building relocation precedes identification of a new use and associated rehabilitation design, the project proponent shall engage the SOI-qualified historic architect to prepare a supplemental SOI Standards Analysis Memo and it shall be submitted along with the first permit or entitlement application for the new use of Granger Hall in Pepper Park to ensure that the project adheres to the SOI Standards for Rehabilitation of Historic Properties.
- **Provisions for Monitoring of Relocation and Confirmation of Reuse**: the Relocation and Rehabilitation Plan shall incorporate provisions for a pre-demolition onsite meeting with the architect, structural engineer, contractor, District, City Development Services Department, and reviewing SOI-qualified historic architect at both the current building site and relocation site. The plan shall incorporate provisions for architectural monitoring and reporting to ensure that the relocation and reuse of Granger Hall both adhere to the SOI Standards for Rehabilitation of Historic Properties. The plan shall specify the frequency of monitoring visits by the historic architect. At a minimum, the historic architect shall conduct monitoring prior to each major phase of work following the pre-demolition meeting and continuing monitoring through issuance of the certificate of occupancy at the Pepper Park relocation site. Upon issuance of the certificate of occupancy at the Granger Hall relocation site, the historic architect shall prepare a Final Monitoring Report to document fulfillment of **MM-CUL-1**, which the District and the City shall keep on file.

Level of Significance after Mitigation

Granger Hall was relocated to its current site prior to its listing in the NRHP/CRHR, and the building's current setting and location are not aspects of historic integrity that convey its significance. Therefore, the proposed relocation of the building to Pepper Park would not itself result in a significant impact on a historical resource if the building retains its character-defining architectural features following relocation and rehabilitation for reuse. By requiring protective measures during Granger Hall's relocation and rehabilitation for reuse, implementation of mitigation measure **MM-CUL-1** would prevent inadvertent damage to the building and would therefore avert potential impacts on the resource's integrity of design, materials, workmanship, feeling, and association. Implementation of mitigation measure **MM-CUL-1** would ensure that the building retains its extant character-defining features during and following relocation, such that significant architectural qualities that justify the resource's inclusion in the NRHP and CRHR would

be preserved. Implementation of mitigation measure **MM-CUL-1** would reduce potential impacts from relocation to a less-than-significant level.

Threshold 2: Implementation of the proposed project would cause a substantial adverse change in the significance of an archaeological resource as defined by Section 15064.5 of the State CEQA Guidelines

Impact Discussion

The proposed project area has been comprehensively surveyed for cultural resources in all areas that are not paved, built, or landscaped. One archaeological resource was previously documented in the project area: CA-SDI-7454 is a shell midden reported in 1979 that was not relocated during two subsequent archaeological surveys. It is assumed this site has been destroyed through natural and/or human-made processes, such as infrastructure and real estate development. Two historic-period archaeological resources were identified during the current survey. One is an isolated geodetic survey marker, and the other is a secondary deposit of mixed historic-period bricks and refuse, presumably from the National City/Davis Dump that was once on the northern end of Paradise Marsh. Neither historic-period resource is eligible for listing in the CRHR and neither qualifies as an historical resource for the purposes of CEQA. Nevertheless, the presence of archaeological resources east of the mean high tide line and south of Bay Marina Drive indicates this portion of the proposed project site is sensitive for archaeological resources.

Construction

Ground-disturbing activities associated with construction associated with the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component that would be east of the mean high tide line and south of Bay Marina Drive may disturb undiscovered archaeological resources. As a result of the potential for inadvertent damage or destruction of undisturbed archaeological resources, the project has the potential to materially alter physical characteristics that would qualify an archaeological resource for inclusion in the NRHP and CRHR (Impact CUL-2). Therefore, the project has the potential to result in a significant impact on an archaeological resource. Mitigation measures consisting of preparation of a Cultural Resources Monitoring and Discovery Plan (CRMDP) (**MM-CUL-2**), cultural resources awareness training (**MM-CUL-3**), and conducting archaeological (**MM-CUL-4**) and Native American monitoring (**MM-CUL-5**) in areas of archaeological sensitivity would be necessary to reduce impacts to a less-than-significant level.

Operation

Operation of the proposed project would not result in ground disturbance or structural modifications. Therefore, in the absence of ground disturbance, no operations-related impacts on archaeological resources (including tribal cultural resources) are expected to occur.

Level of Significance Prior to Mitigation

Implementation of the proposed project may cause a substantial adverse change in the significance of an archaeological resource as defined in the State CEQA Guidelines Section 15064.5. Potentially significant impact(s) include the following.

Construction

Impact-CUL-2: Excavation Related to the Proposed Project Would Potentially Damage Significant Archaeological Resources (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component). Ground-disturbing construction activities associated with the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component have the potential to unearth significant unknown archaeological resources that may be in areas of archaeological sensitivity (defined as the area east of the mean high tide line and south of Bay Marina Drive). Impacts would be potentially significant.

Mitigation Measures

Construction

For **Impact-CUL-2**:

MM-CUL-2: Prepare and Implement a Cultural Resources Monitoring and Discovery Plan (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component).

Prior to the commencement of any ground-disturbing activities within the areas requiring archaeological monitoring (i.e., activities occurring in the area that is both east of the mean high tide line and south of Bay Marina Drive), the respective project proponent shall retain a qualified archaeologist (approved by the District for components within its jurisdiction or the City for components within its jurisdiction) who meets the SOI Professional Qualification Standards (36 CFR 61) to prepare a CRMDP for designated portions of the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component that are sensitive for archaeological resources, defined as the area east of the mean high tide line and south of Bay Marina Drive. Monitoring areas are defined as land-based ground-disturbing activities associated with project components east of the mean high tide line and south of Bay Marina Drive. Procedures to follow in the event of an unanticipated discovery apply to all applicable project components. The CRMDP shall be submitted to the City and District, as applicable based on the jurisdiction in which the project component is located, and shall be reviewed and approved by the relevant agency. If the District or City do not have in-house expertise to review the CRMDP, they shall respectively hire an expert who meets the SOI Professional Qualification Standards (36 CFR 61) and the project proponent shall pay for said expert.

The District's CRMDP review shall ensure that appropriate procedures to monitor construction and treat unanticipated discoveries are in place. District review and approval of the CRMDP shall occur prior to the commencement of any construction activities subject to the requirements of the CRMDP. The CRMDP shall include required qualifications for archaeological monitors and supervising archaeologists and shall lay out protocols to be followed in relation to cultural resources, including both archaeological and tribal cultural resources. The CRMDP shall provide a summary of sensitivity for buried cultural resources. In addition, it shall describe the roles and responsibilities of archaeological and Native American monitors, District personnel (as applicable), City personnel (as applicable), and construction personnel. Additionally, the CRMDP shall describe specific field procedures to be followed for archaeological monitoring,

including field protocol and methods to be followed should there be an archaeological discovery. Evaluation of resources; consultation with Native American individuals, tribes, and organizations; treatment of cultural remains and artifacts; curation; and reporting requirements shall also be described. The CRMDP shall also delineate the requirements, procedures, and notification processes in the event human remains are encountered.

The CRMDP shall delineate the area(s) of archaeological sensitivity that require archaeological monitoring. Mapping of the area(s) shall be made available to the project proponent, who shall incorporate this information into the respective construction specifications for the Balanced Plan Component, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component.

MM-CUL-3: Prepare and Implement a Cultural Resources Awareness Training Prior to Project Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component).

Prior to, and for the duration of, project-related ground disturbance in the areas east of the mean high tide line and south of Bay Marina Drive, the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component respective project proponent shall hire a qualified archaeologist who meets the SOI Professional Qualifications Standards (36 CFR 61) and is approved by the District for components within its jurisdiction, and the City for components within its jurisdiction, to provide cultural resources awareness training to project construction personnel. The training shall include a discussion of applicable laws and penalties under the law; samples or visual representations of artifacts that might be found in the project vicinity; and the steps that must be taken if cultural resources are encountered during construction, including the authority of archaeological monitors, if required to be on site during the project, to halt construction in the area of a discovery.

A hard copy summary of cultural resource laws, discovery procedures, and contact information shall be provided to all construction workers. Completion of the training shall be documented for all construction personnel, who shall be required to sign a form confirming they have completed the training. The form shall be retained by the project proponent to demonstrate compliance with this mitigation measure.

MM-CUL-4: Conduct Archaeological Monitoring in Areas of Sensitivity (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component).

Within the areas of the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component east of the mean high tide line and south of Bay Marina Drive, the project proponent shall retain a qualified archaeologist(s) who meets the SOI Professional Qualifications Standards as promulgated in 36 CFR 61. The qualified archaeologist(s) shall supervise archaeological monitoring of all proposed ground-disturbing activities for the project in the archaeologically sensitive portion(s) of the project site. The archaeologically sensitive portion(s) of the project site is defined as land-based ground-disturbing activities associated with project components east of the mean high tide line and south of Bay Marina Drive. Monitoring actions and procedures shall be completed per the CRMDP described in **MM-CUL-2**.

MM-CUL-5: Conduct Native American Monitoring in Areas of Sensitivity (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component).

A Kumeyaay Native American monitor shall be present at all areas designated for archaeological monitoring—defined as land-based ground-disturbing activities associated with the portions of the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component that are east of the mean high tide line and south of Bay Marina Drive. This monitoring shall occur on an as-needed basis and is intended to ensure that Native American concerns are considered during the construction process. Native American monitors shall be retained from tribes who have expressed an interest in the project and have participated in discussions with the District. If a tribe has been notified of scheduled construction work and does not respond, or if a Native American monitor is not available, work may continue without the Native American monitor. Roles and responsibilities of the Native American monitors shall be detailed in the CRMDP described in mitigation measure **MM-CUL-2**. Costs associated with Native American monitoring shall be borne by the project proponent.

Level of Significance after Mitigation

Construction

After implementation of mitigation measures **MM-CUL-2** through **MM-CUL-5**, **Impact-CUL-2** would be reduced to a less-than-significant level because the preparation and implementation of a CRMDP and Cultural Resources Awareness Training, as well as archaeological and Native American monitoring of any ground-disturbing activities on designated portions of the project site, would minimize the potential to damage, or result in the loss of, unknown subsurface archaeological resources. The proposed project's impact on the significance of archaeological resources, as defined in State CEQA Guidelines Section 15064.5, would be less than significant.

Threshold 4: Implementation of the proposed project would directly or indirectly cause a substantial change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or an object with cultural value to a California Native American tribe and:

a. Listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k), or

b. A resource determined eligible by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5021.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

Impact Discussion

Records searches at the South Coastal Information Center were conducted for the project area to determine if previously recorded tribal cultural resources are present within the project site. No tribal cultural resources listed in or eligible for listing in the CRHR were identified during the records search. Additionally, a Sacred Lands File Search of the project area was obtained on October 10, 2018, from the NAHC as part of the cultural resources study. No Sacred Lands were identified by the NAHC.

Pursuant to PRC Section 21080.3.1 (AB 52), California Native American tribes traditionally and culturally affiliated with the project area can request notification of projects in their traditional cultural territory. The District has not received a request for AB 52 project notifications from any local Native American tribes. Additionally, the District has not received a specific AB 52 consultation request for the proposed project.

Due to the developed nature of the project site and the surrounding area, it is unlikely that significant tribal cultural resources would be encountered during construction of the project. Therefore, impacts would be less than significant. Nevertheless, the presence of archaeological resources east of the mean high tide line and south of Bay Marina Drive indicates this portion of the project site is sensitive for archaeological resources. If an archaeological resource is encountered during project construction, it is possible that the resource could be a tribal cultural resource.

Construction

Ground-disturbing activities associated with construction associated with the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component that would be east of the mean high tide line and south of Bay Marina Drive may disturb undiscovered tribal cultural resources. As a result of the potential for inadvertent damage or destruction of undisturbed tribal cultural resources, the project has the potential to materially alter physical characteristics that would qualify a tribal cultural resource for inclusion in the NRHP and CRHR (Impact CUL-3). Therefore, the project has the potential to result in a significant

impact on a tribal cultural resource. Mitigation measures consisting of preparation of a CRMDP (**MM-CUL-2**), cultural resources awareness training (**MM-CUL-3**), and conducting archaeological (**MM-CUL-4**) and Native American monitoring (**MM-CUL-5**) in areas of archaeological sensitivity would be necessary to reduce impacts to a less-than-significant level.

Operation

Operation of the proposed project would not result in ground disturbance or structural modifications. Therefore, in the absence of ground disturbance, no operations-related impacts on tribal cultural resources are expected to occur.

Level of Significance Prior to Mitigation

Implementation of the proposed project may cause a substantial adverse change in the significance of a tribal cultural resource as defined in Section 21074 of the PRC and the State CEQA Guidelines Section 5021.1. Potentially significant impact(s) include the following.

Construction

Impact-CUL-3: Excavation Related to the Proposed Project Would Potentially Damage Tribal Cultural Resources (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component). Ground-disturbing construction activities associated with the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component have the potential to unearth unknown tribal cultural resources that may be in areas of archaeological sensitivity (defined as the area east of the mean high tide line and south of Bay Marina Drive). Impacts would be potentially significant.

Mitigation Measures

Construction

For **Impact CUL-3**:

> For projects associated with the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component, in areas of archaeological sensitivity, defined as land-based ground-disturbing activities associated with project components east of the mean high tide line and south of Bay Marina Drive, implement mitigation measures **MM-CUL-2: Prepare and Implement a Cultural Resources Monitoring and Discovery Plan**; **MM-CUL-3: Prepare and Implement a Cultural Resources Awareness Training Prior to Project Construction**; **MM-CUL-4: Conduct Archaeological Monitoring in Areas of Sensitivity**; and **MM-CUL-5: Conduct Native American Monitoring in Areas of Sensitivity**, as described above.

Level of Significance after Mitigation

Construction

After implementation of mitigation measures **MM-CUL-2** through **MM-CUL-5**, **Impact-CUL-3** would be reduced to a less-than-significant level because the preparation and implementation of a CRMDP and Cultural Resources Awareness Training, as well as archaeological and Native American

monitoring of any ground-disturbing activities on designated portions of the project site, would minimize the potential for damage or loss of unknown tribal cultural resources. The proposed project's impact on the significance of tribal cultural resources, as defined in as defined in Section 21074 of the PRC and the State CEQA Guidelines Section 5021.1, would be less than significant.

Threshold 5: Implementation of the proposed project would directly or indirectly result in the destruction of a unique paleontological resource or site or unique geologic feature.

Impact Analysis

The Granger Hall portion of the cultural resources study area near I-805 and 4th Street is underlain by Lindavista Formation, which has yielded remains of nearshore marine invertebrates (clams, scallops, snails, barnacles, and sand dollars) and on rarer occasions remains of marine vertebrates (sharks and baleen whales). The Lindavista Formation at the Granger Hall portion of the cultural resources study area is assigned a moderate paleontological sensitivity. However, the removal of Granger Hall from its current site for potential relocation to Pepper Park would not require excavation exceeding 1,000 yards and reaching depths greater than 10 feet.

Much of the cultural resources study area north of Paradise Creek marsh and within the far northwestern portion of the marsh is underlain by Bay Point Formation, which is assigned high paleontological sensitivity. Although no recorded fossil collection localities exist within a quarter-mile radius of the cultural resources study area, Bay Point Formation has produced diverse and large deposits of marine invertebrate fossils, as well as rarer marine vertebrates (sharks, rays, and bony fish). The two blocks on the north side of Bay Marina Drive that could be subject to new construction under the City Program – Development Component are underlain by Bay Point Formation. Portions of all three of the proposed Bayshore Bikeway Component routes are also underlain by Bay Point Formation. These include the segments of Route 1 through the northwestern portion of Paradise Creek marsh and along Marina Way near Bay Marina Drive, Harrison Avenue (now Marina Way), 23rd Street, McKinley Avenue, and 19th Street in the vicinity of McKinley Avenue; segments of Route 2 along Marina Way north through the Best Western Marina Gateway hotel property and along Cleveland Avenue, 19th Street, and Tidelands Avenue; and the segments of Route 3 along Marina Way west of the Best Western Marina Gateway Hotel, Bay Marina Drive, McKinley Avenue, and the Harbor Drive on-ramp to I-5. Excavation in excess of 1,000 cubic yards or to depths greater than 10 feet would be implemented within the City Program – Development Component, and potentially along the Bayshore Bikeway Component routes. These activities have the potential to result in direct impacts on unique paleontological resources (**Impact-CUL-4**). Mitigation measure **MM-CUL-6** (Conduct Monitoring in Areas of Paleontological Sensitivity) would be necessary to reduce impacts to a less-than-significant level.

Level of Significance Prior to Mitigation

Excavation associated with the projects within the City Program – Development Component and the Bayshore Bikeway Component could result in direct or indirect significant impacts on a unique paleontological resource or site. Impacts on paleontological resources could occur from subsurface grading and excavation that disturbs underlying deposits of the Bay Point Formation, which could contain paleontological resources. Potentially significant impacts include:

Impact-CUL-4: Excavation Related to the Proposed Project Would Potentially Disturb Buried Paleontological Resources (City Program – Development Component, Bayshore Bikeway Component). Excavation associated with the proposed project at the City Program – Development Component and portions of all three of the proposed Bayshore Bikeway Component routes are underlain by Bay Point Formation (specifically, segments of Route 1 through the northwestern portion of Paradise Creek marsh and along Marina Way near Bay Marina Drive, Harrison Avenue, 23rd Street, McKinley Avenue, and 19th Street in the vicinity of McKinley Avenue; segments of Route 2 from Marina Way through the Best Western Marina Gateway hotel property and Cleveland Avenue as far north as 19th Street; and the segments of Route 3 along Marina Way west of the Best Western Marina Gateway hotel, Bay Marina Drive, McKinley Avenue, and the Harbor Drive on-ramp to I-5). Excavation in excess of 1,000 cubic yards and to depths greater than 10 feet could result in direct or indirect impacts on a unique paleontological resource or site. Impacts would be potentially significant.

Mitigation Measures

For **Impact CUL-4**:

MM-CUL-6: Conduct Paleontological Monitoring in Areas of Sensitivity (City Program – Development Component, Bayshore Bikeway Component).

A qualified paleontologist meeting the Society for Vertebrate Paleontology qualifications (retained by the respective project proponent and pre-approved by the District or City as applicable) shall review the paleontological records search prepared by the San Diego Natural History Museum to confirm the locations of paleontologically sensitive areas as well as the existing literature for the proposed project area. The following monitoring measures shall be implemented to recover remains before they are lost or destroyed.

- Where highly sensitive fossil-bearing deposits are likely to be affected and the proposed construction methodology allows for the recovery of fossils, then paleontological monitoring shall be incorporated into the project specifications.
- A qualified paleontologist shall attend preconstruction meetings to consult with the grading and excavation contractors concerning excavation schedules, paleontological field techniques, and safety issues. A qualified paleontologist is defined as an individual with an M.S. or Ph.D. in paleontology or geology who is familiar with paleontological procedures and techniques, who is knowledgeable in the geology and paleontology of San Diego County, and who has worked as a paleontological monitoring project supervisor in the county for at least 1 year.
- A paleontological monitor shall be on site on a full-time basis during the original cutting of previously undisturbed deposits of high-sensitivity formations to inspect exposures for contained fossils. The paleontological monitor shall work under the direction of the qualified paleontologist. A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials.
- If fossils are discovered, the paleontologist (or paleontological monitor) shall recover them. In most cases, this fossil salvage can be completed in a short period of time; however, some fossil specimens, such as a complete large mammal skeleton, may require an extended salvage period. In these instances the paleontologist (or paleontological monitor) shall be

allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for the recovering of small fossil remains, such as isolated mammal teeth, it may be necessary to set up a screen-washing operation on site.

- Fossil remains collected during the monitoring and salvage portion of the program shall be cleaned, repaired, sorted, and catalogued.
- Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited (as a donation) in a scientific institution with permanent paleontological collections, such as the San Diego Natural History Museum. Donation of the fossils by the project proponent shall be accompanied by financial support for initial specimen storage.
- A final data recovery report shall be completed that outlines the results of the monitoring program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.

Level of Significance after Mitigation

After implementation of mitigation measure **MM-CUL-6**, **Impact-CUL-4** would be reduced to a less-than-significant level because the recommended monitoring of any ground-disturbing activities in areas of paleontological sensitivity would minimize the potential to directly or indirectly destroy a unique paleontological resource or site or a unique geologic feature.

4.5.1 Overview

This section describes the existing setting for energy and the applicable regulations that govern energy use, supply and distribution, and performance. This section also discusses the proposed project's potential to result in impacts associated with energy use. Impacts related to energy would be significant if the proposed project were to (1) result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or (2) conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Table 4.5-1 summarizes the significant impacts and mitigation measures discussed in Section 4.5.4.3, *Project Impacts and Mitigation Measures*.

Table 4.5-1. Summary of Significant Energy Impacts and Mitigation Measures

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-EN-1: Potential Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources During Construction (Balanced Plan, Bayshore Bikeway Component, GB Capital Component, Pasha Rail Improvement, Pasha Road Closures Component, and City Program – Development Component)	**MM-GHG-1:** Implement Diesel-Reduction Measures During Project Construction and Operation (All Project Components) **MM-GHG-2:** Comply with District CAP Measures (Balanced Plan, GB Capital Component, Pasha Rail Improvement, Bayshore Bikeway) **MM-GHG-3:** Comply with the Applicable City CAP Measures (City Program – Development Component and a portion of the Bayshore Bikeway within the City's jurisdiction) **MM-GHG-5:** Implement Electric Heating and Zero-Net-Energy Buildings (GB Capital Component, Balanced Plan, City Program – Development Component) **MM-GHG-6:** Implement a Renewable Energy Project On Site, or Other Verifiable	Less than Significant	**MM-GHG-1** would help ensure that the use of diesel-operated vehicles during construction would not be wasteful. **MM-GHG-2** and **MM-GHG-3** (applies to the City Program Component) would require several sustainability measures to help ensure the project would reduce energy demand and avoid inefficient use of energy resources. After mitigation, potential impacts related to the wasteful, inefficient, and unnecessary consumption of energy would be less than significant. **MM-GHG-5** would require all development to meet the state's draft zero net energy standards, if and when adopted as part of the California Building Code, and for the City and

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
	Actions or Activities on Tidelands or Within Offsite Tidelands, or Within another Adjacent Member City, or Purchase the Equivalent GHG Offsets from a CARB-Approved Registry or a Locally Approved Equivalent Program (Balanced Plan, GB Capital Component) **MM-GHG-7:** Implement a Renewable Energy Project On Site, or Other Verifiable Actions or Activities Within National City or Within an Adjacent Community, or Purchase the Equivalent GHG Offsets from a CARB-Approved Registry or a Locally Approved Equivalent Program (City Program – Development Component)		the District to encourage project developers to construct all-electric buildings. **MM-GHG-6** and **MM-GHG-7** would require project proponents to incorporate renewable energy and/or the purchase of an equivalent of greenhouse gas (GHG) offsets at the time of future design.
Impact-EN-2: Potential Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources During Operation (Balanced Plan, GB Capital Component, and City Program – Development Component)	Implement **MM-GHG-1**, **MM-GHG-2**, **MM-GHG-3**, **MM-GHG-5**, **MM-GHG-6, and MM-GHG-7.**	Less than Significant	**MM-GHG-1** would help ensure that the use of diesel-operated vehicles during construction would not be wasteful. **MM-GHG-2** and **MM-GHG-3** (applies to the City Program Component) would require several sustainability measures to help ensure that the project would reduce energy demand and avoid inefficient use of energy resources. After mitigation, potential impacts related to the wasteful, inefficient, and unnecessary consumption of energy would be less than significant. **MM-GHG-5** would require all development to meet the state's draft zero net energy standards, if and when adopted as part of the California Building Code, and for the City and

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
			the District to encourage project developers to construct all-electric buildings. **MM-GHG-6** and **MM-GHG-7** would require project proponents to incorporate renewable energy and/or the purchase of an equivalent of GHG offsets at the time of future design.
Impact-EN-3: Potential Inconsistency with Applicable Energy Use Reduction Plans (All Project Components)	Implement **MM-GHG-2** and **MM-GHG-3.**	Less than Significant	Without assurance that the proposed project would comply with the District's and City's CAPs, an inconsistency with one or both may occur. **MM-GHG-2** and **MM-GHG-3** would require compliance with both CAPs and avoid any potential for an inconsistency to occur.

4.5.2 Existing Conditions

Energy use includes direct and indirect consumption of energy, including electricity and natural gas, and fuel associated with transportation-related energy, during project construction and operation. San Diego Gas and Electric (SDG&E) provides electricity and natural gas to the project site.

4.5.2.1 State Energy Resources and Use

California has a diverse portfolio of resources that produced 2,408 trillion British thermal units (BTUs)[1] of energy in 2018 (U.S. Energy Information Administration 2018).[2] Excluding offshore areas, the state ranked third in the nation in crude oil production in 2018, producing the equivalent of 965.3 trillion BTUs of energy. The state also ranked first in the nation for energy production from renewable resources. Other energy sources in the state include natural gas (228.9 trillion BTUs), nuclear (190.4 trillion BTUs), and biofuels (30 trillion BTUs) (U.S. Energy Information Administration 2018).[3]

[1] One BTU is the amount of energy required to heat 1 pound of water by 1°F at sea level. BTU is a standard unit of energy that is used in the United States and is on the English system of units (foot-pound-second system).

[2] Note that 2018 data are the most recent available.

[3] No coal production occurs in California; however, imported coal made up approximately 3% of California's energy mix as of 2018. SDG&E, the energy provider for the San Diego region, does not have any coal in its energy mix as of 2018 (CEC 2021a).

According to the U.S. Energy Information Administration, California consumed approximately 7,967 trillion BTUs of energy in 2018. Per capita energy consumption (i.e., total energy consumption divided by the population) in California is among the lowest in the country, with 202 million BTU in 2018, which ranked 48th among all states. Natural gas accounted for the majority of energy consumption (28%); followed by motor gasoline (22%); renewable energy, including nuclear electric power, hydroelectric power, biomass, and other renewables (18%); distillate and jet fuel (16%); and interstate electricity (8%); with the remaining 8% coming from a variety of other sources (U.S. Energy Information Administration 2019). The transportation sector consumed the highest quantity of energy (39%), followed by the industrial (24%), commercial (19%), and residential (18%) sectors (U.S. Energy Information Administration 2018).

Per capita energy consumption, in general, is declining due to improvements in energy efficiency and design. However, despite this reduction in per capita energy use, the state's total overall energy consumption (i.e., non-per capita energy consumption) is expected to increase over the next several decades due to growth in population, jobs, and vehicle travel. For example, electricity usage is anticipated to grow about 12 to 20% by 2027 over 2016 consumption (CEC 2021b).

4.5.2.2 Regional Energy Resources and Use

SDG&E provides energy service to over 3.6 million customers (i.e., 1.4 million accounts) in San Diego County and portions of southern Orange County. The utility has a diverse power production portfolio, composed of a variety of renewable and non-renewable sources. Energy production typically varies by season and by year. Regional electricity loads also tend to be higher in the summer because higher summer temperatures drive increased demand for air-conditioning. In contrast, natural gas loads are higher in the winter because colder temperatures drive increased demand for natural gas heating.

In 2018,[4] over 43% of the electricity SDG&E supplied was from renewable sources, compared to less than 1% in 2002 (CEC 2019a). Table 4.5-2 outlines the SDG&E power mix in 2018 compared to the power mix for the state (CEC 2021a). In 2019, SDG&E customers used 20,481 gigawatt hours of electricity and 534 million therms of natural gas (CEC 2021b). Table 4.5-3 outlines the breakdown of electricity and natural gas usage by sector in the SDG&E service area. Residential and commercial uses account for 89% of electricity use and 94% of natural gas use within the SDG&E service area.

Table 4.5-2. SDG&E and the State of California Power Mix in 2018

Energy Resources	SDG&E Power Mix	California-Wide Power Mix
Eligible Renewables	43	31
Biomass and Waste	2	2
Geothermal	0	5
Small hydroelectric	0	2
Solar	20	11
Wind	21	11
Coal	0	3
Large Hydroelectric	0	11
Natural Gas	29	35

[4] 2018 is the most recent year for which California Renewables Portfolio Standard data is available.

Energy Resources	SDG&E Power Mix	California-Wide Power Mix
Nuclear	0	9
Other	0	0
Unspecified Sources of Power[1]	27	11
Total	100	100

Source: CEC 2021a.
[1] Electricity from transactions that are not traceable to specific generation sources.

Table 4.5-3. Electricity and Natural Consumption in the SDG&E Service Area in 2019

Energy Resources	Electricity (GWh)	Natural Gas (million therms)
Agriculture and Water Pump	355	5
Commercial	10,865	200
Industry	1,342	21
Mining and Construction	395	4
Residential	7,435	304
Streetlight	90	--
Total	20,481	534

Source: CEC 2021b.
GWh = gigawatt hours

4.5.3 Applicable Laws and Regulations

4.5.3.1 State

Clean Energy and Pollution Reduction Act of 2015

Senate Bill (SB) 350 (De Leon, also known as the "Clean Energy and Pollution Reduction Act of 2015") was approved by the California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions are to require the following by 2030: (1) a Renewables Portfolio Standard (RPS) of 50% and (2) a doubling of efficiency for existing buildings.

Energy Building Regulations and Energy Conservation Standards

New buildings constructed in California must comply with the standards contained in California Code of Regulations (CCR) Title 20, Energy Building Regulations, and Title 24, Energy Conservation Standards. Title 20 contains standards ranging from power plant procedures and siting to energy efficiency standards for appliances to ensuring reliable energy sources are provided and diversified through energy efficiency and renewable energy resources.

Energy Conservation Standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission in June 1977 and most recently revised in 2008 (24 CCR 6). Title 24 requires the design of building shells and building components that conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

California Energy Code

Title 24, Part 6 of the CCR describes California's energy efficiency standards for residential and nonresidential buildings. These standards were established in 1978 in response to a legislative mandate to reduce California's energy consumption and have been updated periodically to include new energy efficiency technologies and methods. The California Energy Code requires compliance with energy efficient standards for all new construction, including new buildings, additions, alterations, and, in nonresidential buildings, repairs.

California Energy Efficiency Standards for Residential and Nonresidential Buildings—Green Building Code (2011), Title 24 Updates (2013, 2015)

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code (24 CCR). Part 11 establishes voluntary standards that became mandatory in the 2010 edition of the code, including planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.

The Green Building Standards Code (CALGreen) applies to the planning, design, operation, construction, use, and occupancy of newly constructed buildings and requires the installation of energy- and water-efficient indoor infrastructure for all new projects permitted after January 1, 2011. CALGreen also requires newly constructed buildings to develop a waste management plan and divert at least 50% of the construction materials generated during project construction.

Administrative regulations to CALGreen Part 11 and the California Building Energy Efficiency Standards were adopted in 2013 and took effect on January 1, 2014. The 2013 Building Energy Efficiency Standards are 30% more efficient than previous standards for commercial construction. Part 11 also established voluntary standards that became mandatory in the 2010 edition of the code, including planning and design for sustainable site development, energy efficiency, water conservation, material conservation, and internal air contaminants.

The 2016 Building Energy Efficiency Standards were adopted in 2015 and took effect on January 1, 2017. While the 2016 standards do not require zero net energy (ZNE) buildings, the 2019 standards, which took effect January 1, 2020, are expected to take the final step toward achieving zero net energy for newly constructed residential buildings throughout California with requirements such as solar voltaic systems for new homes and encouraging demand responsive technologies (e.g., battery storage, heat pump water heaters, etc.) to improve energy savings. Later standards are expected to require zero net energy for newly constructed commercial buildings.

California Renewable Resources Act and the Clean Energy and Pollution Reduction Act of 2015

SB X1-2 (also known as the "California Renewable Resources Act") was signed by Governor Brown in April 2011 and revised California's RPS to a goal of 33% by 2020. SB 350 increased the renewable procurement goal from 33% by 2020 to 50% by 2030 and also requires the state to double energy efficiency savings.

Climate Change Scoping Plan of 2017

Executive Order B-30-15 and SB 32 extended the goals of AB 32 and set a 2030 goal of reducing emissions 40% from 2020 levels. The Scoping Plan established a proposed framework to implement programs to meet GHG reduction goals.

The 100 Percent Clean Energy Act of 2018

The 100 Percent Clean Energy Act of 2018 (SB 100) builds on SB 350 by increasing the renewable procurement target set in SB 350 to 60% by 2030 and requires 100% zero-carbon energy production and consumption by 2045.

State CEQA Guidelines, Appendix F

Appendix F of the State CEQA Guidelines contains energy conservation measures that promote the efficient use of energy for projects. In order to ensure that energy impacts are considered in project decisions, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

The goal outlined in Appendix F of the State CEQA Guidelines is to conserve energy through the wise and efficient use of energy. The means of achieving this goal include the following.

- Decreasing the overall per capita energy consumption.
- Decreasing reliance on natural gas and oil.
- Increasing reliance on renewable energy sources.

4.5.3.2 Local

San Diego Association of Governments

San Diego Association of Governments' (SANDAG) San Diego Forward: The Regional Plan, which incorporates the 2050 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS), was adopted in 2011and provides a planned vision for the region's transportation system through 2050. The plan also incorporates a sustainable communities strategy as required by SB 375, which includes implementation of a Transportation Demand Management (TDM) strategy to help local governments reduce energy consumption.

SANDAG's Energy and Climate Change program supports local efforts to reduce GHG emissions in alignment with statewide goals to prepare for the impacts of climate change. Projects include climate action planning and energy engineering services for local jurisdictions, electric vehicle charging, and climate adaptation (SANDAG 2019).

Through its Energy Roadmap Program, SANDAG provides energy efficiency and engineering support to qualifying local jurisdictions (i.e., cities), which includes free energy assessments and energy management plans, or "Energy Roadmaps," to SANDAG member agencies that do not have Local Government Partnerships with SDG&E.

In July 2015, SANDAG launched Plug-in San Diego (Plug-in SD) through a 2-year CEC grant. Plug-in SD implemented recommendations from SANDAG's Electric Vehicle (EV) Readiness Plan through a

combination of resource development, training, technical assistance through an EV Expert, and outreach. SANDAG has provided various reports and documents to assist property owners in acquiring EV charging infrastructure and better understanding the technologies, incentives, and installation options available.

SANDAG Regional Energy Strategy

The Regional Energy Strategy (RES) will serve as an energy policy blueprint for the region through 2050 (SANDAG 2019). The RES establishes long-term goals in 11 topic areas, including energy efficiency, renewable energy, distributed generation, transportation fuels, land use and transportation planning, border energy issues, and the green economy. Priority early actions of the RES include the following.

1. Pursue a comprehensive building retrofit program to improve efficiency and install renewable energy systems.
2. Create financing programs to pay for projects and improvements that save energy.
3. Use the SANDAG-SDG&E Local Government Partnership to help local governments identify opportunities and implement energy savings, both at government facilities and throughout the communities.
4. Support land use and transportation planning strategies that reduce energy use and GHG emissions.
5. Support planning for electric-charging and alternative-fuel infrastructure.
6. Support the use of existing unused reclaimed water to decrease the amount of energy needed to meet the water needs of the San Diego region.

In the RES, SANDAG acknowledges the state's "preferred loading order" for meeting the goals pertaining to the state's growing electricity demand. The preferred loading order is as follows.

1. Increase energy efficiency,
2. Increase demand response (e.g., through a temporary reduction or shift in energy use during peak hours),
3. Meet generation needs with renewable and distributed generation resources, and
4. Meet new generation needs with clean fossil-fueled generation and infrastructure improvements.

The RES contains a suite of goals as well as measures for achieving the goals. For example, the RES includes an energy efficiency and conservation goal for reducing per capita electricity consumption by 20% by 2030 to compensate for population growth. Other regional goals are associated with developing renewable energy, encouraging distributed generation, reducing water consumption and diversifying water sources, reducing peak demand, relying on smart energy, replacing inefficient power plants, supporting alternative fuels for transportation, and ensuring appropriate land use planning, among others. To accomplish the goals, SANDAG recommends various measures, which local jurisdictions can implement to achieve the goals of the RES, including pursuing a comprehensive building retrofit program and identifying, securing, or developing funding mechanisms to pay for energy-related projects and programs. The RES will be updated periodically

to reflect progress toward the RES goals, account for changes in energy and climate change policy, and make recommendations for continued progress.

Port of San Diego Climate Action Plan

The District adopted a Climate Action Plan (CAP) in December 2013. The CAP includes an inventory of existing (2006) and projected emissions in 2020, 2035, and 2050 and identifies the District's greenhouse gas (GHG) reduction goals for 2020 and 2035 and measures to be implemented to support meeting the statewide reduction goals set forth in Assembly Bill (AB) 32 (1990 levels by 2020), as described in Section 4.6 *Greenhouse Gas Emissions and Climate Change*. District-wide 1990 emissions were not quantified given activity data gaps; instead, a base year of 2006 was used to calculate reductions needed at the District to reach 1990 levels by 2020. Consistent with AB 32 targets, a 10% reduction target (471.3 million metric tons of carbon dioxide equivalent [$MTCO_2e$] in 2006 and estimated 426.6 million $MTCO_2e$ in 1990 statewide) was used as the District-wide reduction target for 2020.[5]

Sources related to implementation of the proposed project that generate GHG emissions include tenant facilities (e.g., hotels, marinas), maritime activity (e.g., the movement of goods and people associated with marine terminal operations), and District operations (e.g., District-owned building energy consumption and fleet activity). The CAP's 2020 projections and reduction targets (1990 levels) for each sector are based on anticipated growth (e.g., increase in hotel rooms) for each emissions sector (e.g., mobile sources, building energy). For example, the CAP assumes a 5% annual growth in lodging-related uses between 2006 and 2020. Thus, the CAP and its reduction targets are specific to the District's geography, type and intensity of uses, and future year projected conditions. Table 4.6-5 in Section 4.6, *Greenhouse Gas Emissions and Climate Change*, provides the CAP's 2006 baseline, projected future year (2020) GHG emissions, projected future year (2020) GHG emissions with the implementation of state measures, and future year GHG emission targets (1990 levels) for the District as a whole. To achieve the requisite reductions, the CAP includes various reduction measures related to transportation and land use, alternative energy generation, energy conservation, waste reduction and recycling, and water conservation and recycling.

Green Port Program and Green Port Policy (BPC Policy No. 736)

The District's Board of Commissioners adopted the Green Port Policy in 2007. This policy establishes guiding principles to achieve long-term environmental, societal, and economic benefits through resource conservation, waste reduction, and pollution prevention. The policy provides the overall framework for the Green Port Program, which is an umbrella program designed to achieve the District's environmental sustainability goals in six key areas: water, energy, air, waste management, sustainable development, and sustainable business practices. It was established in early 2008 to achieve the objectives outlined in the District's Green Port Policy. Policy objectives include the following.

- Minimize, to the extent practicable, environmental impacts directly attributable to operations on San Diego Bay and the tidelands.

[5] The CAP also includes projected emissions and some reduction policies to achieve the reduction target of 25% less than 2006 baseline levels by 2035, but does not yet quantify those reductions.

- Strengthen the District's financial position by maximizing the long-term benefits of energy and resource conservation.
- Prevent pollution and improve personal, community, and environmental health.
- When possible, exceed applicable environmental laws, regulations, and other industry standards.
- Ensure a balance of environmental, social, and economic concerns are considered during planning, development, and operational decisions.
- Define and establish performance-driven environmental sustainability objectives, targets, and programs.
- Monitor key environmental indicators and consistently improve performance.
- Foster socially and environmentally responsible behavior through communications with employees, tenants, stakeholders, and the community.
- Collaborate with tenants to develop an integrated, measurable, Bay-wide environmental sustainability effort.

At present, the Green Port Program primarily focuses on things the District can do to be more environmentally sustainable, such as using less water and being more energy efficient in its own operations. In the future, the District will work with its tenants (businesses that lease bayfront land from the District), local environmental groups, and others around San Diego Bay to identify ways they can support the Green Port Program.

City of National City Climate Action Plan

The City's CAP, adopted in 2011, includes an inventory of existing (2005) community-wide emissions as well as an inventory of existing (2006) governmental operations emissions. The CAP also provides community-wide and government operations emissions forecasts for 2020 and 2030 based on growth associated with buildout of the General Plan. The CAP includes a reduction goal of 15% below 2005/2006 baseline emission levels (468,107 $MTCO_2e$ community-wide, and 4,315 $MTCO_2e$ for government operations) by 2020 to reach the goals set forth in AB 32 (1990 levels by 2020). The CAP includes measures and policies related to conservation of energy, use of energy-efficient technologies, and renewable energy resources to achieve reduction targets.

City of National City Code of Ordinances, Title 15, Chapter 15.75

The City adopted Chapter 15.75, for the purpose of prescribing regulations for the conservation of energy, consistent with the 2019 California Energy Code, California Code of Regulations, Title 24, Part 6. Per the Chapter 15.75 ordinance, all construction of buildings where energy will be utilized shall be in conformance with the 2019 California Energy Code.

City of National City General Plan Policies

The following are General Plan policies from the Open Space and Agriculture, and Conservation and Sustainability Elements designed to reduce impacts related to energy.

Open Space and Agriculture Element

Policy OS-5.6: Encourage the use of best management practices to achieve long-term energy efficiency and water and resource conservation, including the incorporation of xeriscape, renewable energy sources, green building and low-impact development practices for public and private park improvements.

Conservation and Sustainability Element

Policy CS-1.1: Develop and adopt new or amended regulations or programs that address:

- Improving energy efficiency, especially in the transportation sector and buildings and appliances.

Policy CS-6.3: Work with SDG&E to ensure that energy utilities are provided, maintained, and operated in a manner that protects residents and enhances the environment.

Policy CS-7.1: Promote the use of green building practices in new and existing development to maximize energy efficiency and conservation.

Policy CS-7.2: Encourage the use of building placement, design and construction techniques that minimize energy consumption.

Policy CS-7.3: Consistent with the California Public Utilities Commission's California Long Term Energy Efficiency Strategic Plan, strive to achieve zero net energy use for new residential development by 2020 and zero net energy use for new commercial development by 2030.

Policy CS-7.6: Promote the use of cool roofs, green roofs, south-facing roofs, solar panels, solar hot-water heaters, and other green energy sources in conjunction with new development and retrofits to existing structures.

Policy CS-7.7: Encourage LEED certification for all new municipal, commercial, and industrial buildings in the city.

4.5.4 Project Impact Analysis

4.5.4.1 Methodology

Energy impacts would occur if the proposed project would result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Energy impacts would also occur if the proposed project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The energy analysis for the proposed project evaluates the following sources of energy consumption associated with existing conditions and the proposed project.

Energy Use During Construction

Implementation of the proposed project would result in energy use from construction of landside and waterside components. Energy use associated with construction activities includes the consumption of transportation fuels (i.e., gasoline and diesel) for equipment use and employee,

delivery, and haul truck vehicle travel along with electricity consumption by temporary buildings used during construction. Diesel fuel would be required for operation of heavy duty off-road construction equipment (e.g., cranes, forklifts, loaders) that would be used for a variety of activities, including demolition of structures, walkways, and asphalt; construction of buildings and infrastructure; and grading and laying foundations. For the purpose of providing a conservative analysis, it was assumed that all off-road equipment used at the project site would be diesel-powered. Both diesel and gasoline fuel would also be required for the operation of on-road vehicles (e.g., pickup trucks, flatbed trucks, passenger cars) that would be used for material and equipment hauling, crew and material movement, employee commuting, and material disposal. Construction of the waterside components would require fuel consumption for the operation of skiffs, tugboats, and pushboats to haul materials and move equipment around the project site. The crane barge would house the crane around project sites, and the material barges would be required to move equipment and materials around the project sites and to transport Granger Hall to Pepper Park. Pushboats and tugboats would be required to move the crane and material barges around the project sites and to transport the Granger Hall barge. Skiffs are assumed to be required to transport workers around project sites and to push the docks and smaller materials within the marina. The project components would be constructed in different phases. For purposes of analysis, construction of all components except for Phase 2 of the GB Capital Component were assumed to commence around 2022 and overlap on a given day. Note that the construction analysis is based on a construction schedule that begins around 2022 and lasts through 2025. In the likely event that construction of the various components occurs at a date later than assumed herein, emissions and energy consumption are likely to be lower than the emissions and energy consumption presented in the analysis below due to the fact that emissions on per unit basis (e.g., per horsepower hour, per vehicle mile traveled), and also energy consumption, decrease over time, particularly due to regulations that reduce emissions and improve fuel economy over time.

A full summary of construction phasing is provided in Section 4.2, *Air Quality and Health Risk*.

Energy use during construction was estimated using a combination of methods and energy factors from published best available documentation. Energy usage associated with fuel consumption was calculated by converting GHG emissions estimated for the GHG analysis using the rate of carbon dioxide (CO_2) emissions per gallon of combusted gasoline (8.78 kilograms/gallon) and diesel (10.21 kilograms/gallon) (Climate Registry 2018). The estimated fuel consumption was converted to BTUs, assuming an energy intensity of 113,927 BTUs per gallon of gasoline and 129,488 per gallon of diesel, and electricity was converted to BTUs assuming an energy intensity of 3,416 BTUs per kilowatt hour (kWh) (Argonne National Laboratory 2015). A full list of assumptions and emission and energy calculations for project construction can be found in Appendix F of this EIR.

Energy Use During Operation

Operation of the proposed project would also require energy for both landside and waterside elements. Changes in energy use at the project site would result from operation of landside uses including the RV park, modular cabins, hotels, marina, restaurant(s), retail, and other general tourist/visitor-serving commercial development. These uses would require natural gas for space and water heating, electricity, and gasoline for visitor travel to and from the project site. Changes in energy use from waterside elements would result from the addition of 95 recreational boats operating at the Pier 32 Marina, which would result in use of both gasoline and diesel fuel. Changes

in energy use were estimated for two operational years: 2025, which is the assumed buildout year for all project components, and 2050, which is the buildout year for SANDAG's RTP.

Operational energy use was estimated using the same methods and energy factors described for short-term construction energy use. Fuel consumption during operation was calculated by converting GHG emissions estimated for the GHG analysis using the rate of CO_2 emissions per gallon of combusted gasoline and diesel. Fuel consumption was then converted to energy using industry standard emission factors for BTUs per gallon of gasoline and diesel. Energy use associated with area sources, such as natural gas consumption (for space and water heating), water consumption, electricity, wastewater, and solid waste removal was estimated based on the methods, assumptions, and data sources within CalEEMod for the proposed land uses. A full list of assumptions and emission and energy calculations for project operations can be found in Appendix F of this EIR.

4.5.4.2 Thresholds of Significance

The following significance criteria are based on Appendix G of the State CEQA Guidelines and provide the basis for determining the significance of impacts associated with the demand placed on and expansions associated with energy use resulting from the implementation of the proposed project. The determination of whether an energy use impact would be significant is based on the professional judgment of the District as Lead Agency, supported by the evidence in the administrative record.

Impacts are considered significant if the project would result in any of the following:

1. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.5.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project <u>would</u> result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Impact Discussion

Construction

Project construction would require electricity for use in mobile offices and water delivery to construction sites, gasoline and diesel fuel for transportation of employees and haul trucks to and from the project site, and diesel fuel for operation of off-road equipment as well as marine vessels. Table 4.5-4 outlines the construction energy use by source. As shown, the majority of energy use during construction would be attributed to use of diesel-powered construction equipment, followed by the use of diesel-powered trucks for material hauling and vendor trips. Total energy consumed during the construction period represents a small demand on local and regional fuel supplies. However, while the project may not require a significant amount of energy during construction relative to regional demand, it could still result in the wasteful, inefficient, or unnecessary

consumption of energy resources during project construction if measures are not taken to ensure energy is used efficiently. As such, impacts associated with construction of the Balanced Plan, Bayshore Bikeway Component, GB Capital Component, Pasha Rail Improvement, Pasha Road Closures Component, and City Program - Development Component would be potentially significant (**Impact-EN-1**).

Table 4.5-4. Estimated Construction Energy Consumption by Source Prior to and After Mitigation Measures (million BTUs/year)

Source	Unmitigated	With Mitigation Measures
Diesel		
Trucks	14,310	14,297
Equipment	30,949	30,949
Marine	2,373	2,351
Total Diesel	*47,632*	*47,597*
Gasoline		
Workers	7,595	7,595
Total Gasoline	*7,595*	*7,595*
Electricity		
Energy	116	116
Total Electricity	*116*	*116*
Total	55,343	55,308

Source: Appendix F.

To reduce the proposed project's potential to result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction, **MM-GHG-1** through **MM-GHG-3** would be implemented. **MM-GHG-1** requires the implementation of diesel emission-reduction measures including limits to all equipment and delivery truck idling times during construction and maintenance, and proper tuning of all construction equipment. Mitigation measures **MM-GHG-2** and **MM-GHG-3** require the project to include the applicable District and City CAP measures, respectively, which include the use of renewable materials during project construction as well as implementing programs to reduce, reuse, and recycle construction and demolition waste. Table 4.5-4 identifies the reduced construction energy use by source with implementation of mitigation measures. The majority of energy consumption during construction is tied to diesel-powered construction equipment and trucks, and **MM-GHG-1** through **MM-GHG-3** would reduce fuel consumption from these sources. Therefore, after implementation of **MM-GHG-1** through **MM-GHG-3**, energy impacts associated with construction of the proposed project would be reduced to less than significant.

Operation

Operations on the landside portion of the project site that would involve the use of energy resources include employee and visitor vehicle trips, and utility-related consumption (e.g., electricity and natural gas in buildings, water consumption, wastewater and solid waste generation). Waterside energy consumption during operation would be related to the use of recreational boats associated with Pier 32 Marina. Once operational, the proposed project would require more energy than currently required at the project site under existing conditions. As shown in Table 4.5-5, project

operation is estimated to require 222,089 million BTUs of energy in 2025 and 207,234 million BTUs of energy during operations in 2050. Energy requirements for gasoline would go down over time due to improved motor vehicle fuel economy standards.

Table 4.5-5. Estimated Energy Consumption During Operations Prior to and After Mitigation Measures (million BTUs/year)

	Unmitigated		With Mitigation Measures	
	2025	2050	2025	2050
Natural Gas	64,775	64,775	64,775	64,775
Electricity	51,968	51,968	51,381	51,381
Gasoline	105,231	90,360	105,231	90,360
Diesel	116	131	116	131
Total	222,089	207,234	221,502	206,647

Source: Appendix F.
Notes:
Energy is provided in million BTUs for comparison purposes.
Totals may not sum due to rounding.
BTUs can be converted to gallons of gasoline and diesel using the following constants: 113,927 BTU/1 gallon of gasoline; 129,488 BTU/1 gallon of diesel. BTUs can be converted to kWh/year using the 3,416 BTUs per kWh constant. Natural gas is reported in BTUs.

Because of the increase in energy consumption related to the development associated with the Balanced Plan, the GB Capital Component, and the City Program - Development Component relative to exiting conditions, impacts are potentially significant (**Impact-EN-2**). To reduce the proposed project's potential to result in wasteful, inefficient, or unnecessary consumption of energy resources during project operation, **MM-GHG-2**, **MM-GHG-3**, **MM-GHG-5**, **MM-GHG-6,** and **MM-GHG-7** would be implemented. As described above, **MM-GHG-2** and **MM-GHG-3** require compliance with the District's CAP and the City's CAP, respectively, which include a number or sustainability measures that would reduce the proposed project's energy demand. In particular, the District's CAP measures require the use of low-flow fixtures and energy-efficient lighting, implementation of onsite renewable energy for new buildings, installation of co-generation systems (i.e., combined heat and power systems) in new buildings, and incorporation of energy efficiency design features that exceed the 2019 Title 24 California Building Energy Efficiency Standards. The City CAP measures also include incorporation of energy efficiency design features that exceed 2019 Title 24 California Building Energy Efficiency Standards; the prioritization of parking for high occupancy vehicles as well as carpooling, vanpooling, and transit vehicles; the provision of EV charging stations for a minimum 6% of parking spaces; provision of bicycle parking spaces at 5% of new automobile parking spaces; programs to reduce vehicle travel such as telework programs and alternative work schedules; and financial incentives for commuters to reduce vehicle trips through walking, bicycling, public transit, and carpooling. **MM-GHG-5** would require all development to meet the state's ZNE standards, if and when adopted as part of the California Building Code, and for the City and the District to encourage project developers to construct all-electric buildings. Furthermore, **MM-GHG-6** would require project proponents to incorporate renewable energy and/or the purchase of an equivalent of GHG offsets at the time of future design.

New buildings constructed under the proposed project would be required to be designed in compliance with the building energy efficiency standards of the California Building Standards Code, Title 24, California Code of Regulations, which would further reduce energy demand during project

operation. Mitigation measures **MM-GHG-2** and **MM-GHG-3** would require buildings to exceed the 2019 Title 24 California Building Energy Efficiency Standards.

The Pasha Rail Improvement Component would potentially reduce energy consumption by increasing efficiency of Pasha rail operations and reducing the number of train maneuvers. Operation of the Bayshore Bikeway Component would expand regional biking opportunities and provide an alternative to vehicle usage, consistent with the District and City CAPs. As such, energy impacts associated with these project components would be less than significant.

Implementation of **MM-GHG-2**, **MM-GHG-3, MM-GHG-5, MM-GHG-6,** and **MM-GHG-7,** as described in Section 4.6, *Greenhouse Gas Emissions and Climate Change*, would reduce the project's energy demand and fossil fuel use to ensure the project does not result in potential wasteful, inefficient, or unnecessary consumption of energy resources. With implementation of the mitigation measures, the proposed project would assist with energy conservation goals because it would promote energy efficiency and sustainability measures to reduce energy consumption, and promote installation of renewable energy.

Table 4.5-6 provides project considerations identified in Appendix F of the State CEQA Guidelines. Overall, the proposed project would assist with energy conservation goals because it would promote energy efficiency and sustainability measures to reduce energy consumption.

Table 4.5-6. Proposed Project Comparison to State CEQA Guidelines Appendix F

Project Impact Considerations from CEQA Appendix F	Project Applicability and Analysis
Energy requirements and energy use efficiencies by amount and fuel type for each stage of the project.	**Applicable to all Project Components.** See Tables 4.5-4 and 4.5-5, which break down construction and operational energy use. As indicated, the project would increase the use of electricity and the need for fossil fuels such as diesel fuel, gasoline, and natural gas.
Effects on local and regional energy supplies and the need for additional capacity	**Applicable to all Project Components.** Operation of the landside and waterside components of the proposed project would not require upgrades to existing energy infrastructure to accommodate the increased energy demand of the proposed project. Implementation of **MM-GHG-1** would require the implementation of diesel emission-reduction measures including limits to all equipment and delivery truck idling times and maintenance and proper tuning of all construction equipment. Furthermore, **MM-GHG-2** would require the implementation of various sustainability and energy-saving features in compliance with the District's CAP, which would reduce the overall energy demand of the proposed project, such as indoor water reduction measures, high-efficiency lighting systems, and "Cool Roofs." Moreover, **MM-GHG-3** would require the proposed project to incorporate sustainability measures from the City's CAP, which would further reduce the proposed project's demand on local and regional energy supplies. As such, there would be no adverse effects on local or regional energy supplies as a result of the proposed project.
Effects of the project on peak and base period demands for electricity and other forms of energy	**Applicable to all Project Components.** Energy load would vary over time, but current energy supply and infrastructure would be able to accommodate the additional demand without interruption or issues to existing customers and without the need for new

Project Impact Considerations from CEQA Appendix F	Project Applicability and Analysis
	infrastructure. As discussed above, implementation of **MM-GHG-1** through **MM-GHG-3** and **MM-GHG-5**through **MM-GHG-7** would ensure the project does not result in the inefficient or wasteful use of energy. With implementation of these mitigation measures, the project does not propose demand that would affect peak and base-period demand.
Degree to which the project complies with existing energy standards	**Applicable to all Project Components.** The proposed project would be fully compliant with all existing energy standards, including the Clean Energy and Pollution Reduction Act of 2015, Energy Building Regulations and Energy Conservation Standards, and California Energy Code (Title 24). Mitigation measures **MM-GHG-2** and **MM-GHG-3** require proposed project proponents to use energy-efficient lighting and building materials within the project site that not only comply but exceed existing energy standards.
Effects of the project on energy resources	**Applicable to all Project Components.** The proposed project would not result in an adverse impact on energy resources. There are sufficient energy resources to accommodate the additional project energy demand, and implementation of **MM-GHG-1** would require diesel emission-reduction measures such as limiting all equipment and delivery truck idling times, and maintenance and proper tuning of all construction equipment. Furthermore, **MM-GHG-2** would require various sustainability and energy-saving features in compliance with the District's CAP. Additionally, **MM-GHG-3** would require the proposed project to incorporate sustainability measures to reduce impacts on energy resources. Mitigation measure **MM-GHG-5** would require all development to meet the state's ZNE standards, if and when adopted as part of the California Building Code. In addition, the City and the District must encourage project developers to construct all-electric buildings. Furthermore, **MM-GHG-6** and **MM-GHG-7** would require project proponents to incorporate renewable energy and/or the purchase of an equivalent of GHG offsets at the time of future design.
Projected transportation energy use requirements and overall use of efficient transportation alternatives	**Applicable to all Project Components.** The proposed project would increase the need for fossil fuels compared to baseline conditions because it would introduce new uses to the landside portion of the project site that would increase transportation energy use. The construction of a new RV park, modular cabins, hotels, marina, restaurant(s), retail, and other general tourist/visitor-serving commercial uses would result in new motor vehicle trips, while the waterside component of the proposed project would increase the number of recreational boats operating, which would result in use of both gasoline and diesel fuel. However, **MM-GHG-2** and **MM-GHG-3** would require the proposed project to incorporate sustainability measures to reduce impacts on energy resources, including the installation of charging stations to support electric vehicle usage, provision of bicycle parking spaces at 5% of new automobile parking spaces, provision of programs to reduce vehicle travel, and provision of financial incentives for commuters to reduce vehicle trips through

Project Impact Considerations from CEQA Appendix F	Project Applicability and Analysis
	walking, bicycling, public transit, and carpooling. Moreover, **MM-TRA-1** would require each project component to implement TDM measures, such as ride-sharing, vanpooling, alternate work schedules, offsite parking with shuttles, and transit subsidies, to reduce vehicle trips during construction and operation. Overall, project design features and implementation of mitigation measures would decrease the proposed project's need for fossil fuels compared to unmitigated conditions.

Level of Significance Prior to Mitigation

Implementation of the proposed project would result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction and operation. Potentially significant impact(s) include:

Impact-EN-1: Potential Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources During Construction (Balanced Plan, Bayshore Bikeway Component, GB Capital Component, Pasha Rail Improvement, Pasha Road Closures Component, and City Program – Development Component). Implementation of the proposed project would have the potential to result in the wasteful, inefficient, or unnecessary consumption of energy resources during construction.

Impact-EN-2: Potential Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources During Operation (Balanced Plan, GB Capital Component, and City Program – Development Component). Implementation of the proposed project would have the potential to result in the wasteful, inefficient, or unnecessary consumption of energy resources during operation.

Mitigation Measures

For **Impact-EN-1** and **Impact-EN-2**, implement **MM-GHG-1: Implement Diesel Emission-Reduction Measures During Project Construction and Operation, MM-GHG-2: Comply with District CAP Measures, MM-GHG-3: Comply with the Applicable City CAP Measures, MM-GHG-5: Implement Electric Heating and Zero Net Energy Buildings, MM-GHG-6: Implement a Renewable Energy Project On Site, or Other Verifiable Actions or Activities on Tidelands, or Within another Adjacent Member City, or Purchase the Equivalent GHG Offsets from a CARB-Approved Registry or a Locally Approved Equivalent Program,** and **MM-GHG-7: Implement a Renewable Energy Project On Site, or Other Verifiable Actions or Activities Within National City, or Within an Adjacent Community, or Purchase the Equivalent GHG Offsets from a CARB-Approved Registry or a Locally Approved Equivalent Program.** See Section 4.6, *Greenhouse Gases.*

Level of Significance after Mitigation

Construction

As shown in Table 4.5-4, with implementation of **MM-GHG-1, MM-GHG-2**, **MM-GHG-3, MM-GHG-5, MM-GHG-6,** and **MM-GHG-7** construction energy use would be reduced to be below a level of significance. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary use of energy, and **Impact EN-1** would be reduced to less than significant.

Operation

As shown in Table 4.5-5, with implementation of **MM-GHG-1, MM-GHG-2**, **MM-GHG-3, MM-GHG-5, MM-GHG-6,** and **MM-GHG-7** operational energy use would be reduced to be below a level of significance. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary use of energy, and **Impact EN-2** would be reduced to less than significant.

Threshold 2: Implementation of the proposed project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Impact Discussion

State and local renewable energy and energy efficiency plans that are applicable to the proposed project are discussed above in Section 4.5.3, *Applicable Laws and Regulations.* State plans, California Title 24 energy efficiency standards, SB 350, and SB 100 contain required standards related to energy efficiency and renewable energy development. The proposed project is required to comply with the state and local plans and regulations, all of which are aimed at increasing energy efficiency and renewable energy development. Some plans and regulations are statewide and do not require local or project action to implement. Table 4.5-7 provides a consistency analysis with state and local energy plans and regulations.

Table 4.5-7. Proposed Project Consistency with State and Local Energy Plans and Regulations

Regulation, Plan, or Policy	Project Applicability and Consistency
Clean Energy and Pollution Reduction Act of 2015 (Senate Bill (SB) 350)	**Consistent.** The Clean Energy and Pollution Reduction Act of 2015 requires the following by 2030: (1) a Renewables Portfolio Standard (RPS) of 50% and (2) a doubling of efficiency for existing buildings. The RPS is dependent on the utility provider and the project does not impede reaching a goal of 50%.
Energy Building Regulations and Energy Conservation Standards (Title 20, Energy Building Regulations; Title 24, Energy Conservation Standards)	**Consistent.** The proposed project would result in the construction of energy efficient buildings that would comply with existing building codes. At a minimum, new construction occurring under the proposed project would be required to comply with the current Title 24 building standards, which include a broad set of requirements for energy conservation and green design. Moreover, **MM-GHG-2 and MM-GHG-3** would require buildings to exceed the 2019 Title 24 California Building Energy Efficiency Standards.
The 100 Percent Clean Energy Act of 2018	**Consistent.** SB 100 increases the RPS target set in SB 350 to 60% by 2030. It also requires all retail sales of electricity to California end-users and electricity procured to serve state agencies to be provided by zero-carbon resources by 2045. Building energy efficiency is expected to increase as a result of compliance with Title 24 building codes, which are expected to move toward zero net energy for newly constructed buildings. The project would not hinder implementation of SB 100, and **MM-GHG-2** and **MM-GHG-3** would require buildings to exceed the 2019 Title 24 California Building Energy Efficiency Standards.
San Diego Unified Port District Climate Action Plan (CAP)	**Inconsistent (Consistent after Mitigation).** The District CAP includes an inventory of existing and projected emissions in 2020, 2035, and 2050 and identifies the District's GHG reduction goals and measures to be implemented to support meeting the statewide reduction goals set forth in

	Assembly Bill (AB) 32. The proposed project would comply with the District's CAP through implementation of **MM-GHG-2**. The District CAP measures include a number or sustainability measures such as use of low-flow fixtures and low-water plantings, energy-efficient lighting, and recycled materials; implementation of a TDM plan; installation of onsite renewable energy and co-generation systems (i.e., combined heat and power systems) in new buildings; and incorporation of energy efficiency design features that exceed the 2019 Title 24 California Building Energy Efficiency Standards, that would reduce the proposed project's energy demand.
Green Port Policy (BPC 736) and Program	**Consistent.** The Green Port Policy was designed to achieve the District's environmental sustainability goals in six key areas: water, energy, air, waste management, sustainable development, and sustainable business practices; and establishes guiding principles to achieve long-term environmental, societal, and economic benefits through resource conservation, waste reduction, and pollution prevention. Although there is nothing specific to tenant development projects, the project would implement several measures to reduce energy use and, as such, would be consistent with the Green Port Policy and its related Program.
SB 375 and SANDAG's San Diego Forward: The Regional Plan	**Consistent.** SANDAG's Regional Plan established a long-range blueprint for the San Diego region's growth and development through the year 2050. Because the proposed project would not include any components that would result in population growth, unplanned or otherwise, it would be consistent with the 2050 RTP. The proposed project would involve construction of Segment 5 of the Bayshore Bikeway, which would increase opportunities for non-automobile linkages to and around the Bay.
SANDAG Regional Energy Strategy	**Consistent.** SANDAG's RES established long-term goals related to energy efficiency, renewable energy, distributed generation, and transportation fuel, among others. The strategies and goals found in the RES were used as guidance for development of the energy components of the 2050 RTP/SCS. The Pasha Rail Improvement Component includes a proposed connector rail trail to increase rail operation efficiency. These components support land use and transportation planning strategies that reduce energy use and GHG emissions. In addition, operation of the Bayshore Bikeway Component would expand regional biking opportunities and provide an alternative to vehicle usage, which would be consistent with SANDAG's RES.
City of National City Climate Action Plan (CAP)	**Inconsistent (Consistent after mitigation).** The City's CAP includes a reduction goal of 15% below 2005/2006 baseline emission levels by 2020 to reach the goals set forth in AB 32. The CAP proposes measures and policies to reach reduction targets. **MM-GHG-3** requires the City Program – Development Component to implement applicable City CAP measures that include sustainability measures that would also reduce energy demand including prioritized parking for high occupancy vehicles (HOVs), carpooling, vanpooling, and transit vehicles; financial incentives for commuters to reduce vehicle trips; implementation of a pump efficiency cycling schedule; and adoption of water efficiency principles. The mitigation measures would ensure consistency by implementing strategies to address resource consumption from construction, reduce emissions from construction-related mobile sources, encourage energy-efficient design measures for new buildings, reduce waste, and implement onsite renewable energy to new buildings.

City of National City General Plan (Policy OS-5.6, Policy CS-1.1, Policy CS-6.3, Policy CS-7.1 through CS-7.3, and Policy CS-7.7).	**Consistent.** The City's General Plan includes policies from the Open Space and Agriculture, and Conservation and Sustainability Elements designed to reduce impacts related to energy. Energy efficiency policies include Policy CS-7.1, which aims to promote the use of green building practices in new and existing development to maximize energy efficiency and conservation; Policy CS-7.3, which is consistent with the CPUC's California Long Term Energy Efficiency Strategic Plan, and strives to achieve zero net energy use for new commercial development by 2030; and Policy CS-7.6, which promotes the use of cool roofs, green roofs, south-facing roofs, solar panels, solar hot-water heaters, and other green energy sources in conjunction with new development and retrofits to existing structures. The City Program – Development Component would be consistent with these policies.

As shown in Table 4.5-7, the proposed project would be consistent with statewide renewable energy or energy efficiency plans and regulations, but would not be consistent with local plans, such as the District's CAP or City's CAP, prior to mitigation. Because the proposed project may result in an inconsistency with the adopted CAPs, impacts would be significant prior to mitigation (**Impact EN-3**).

Level of Significance Prior to Mitigation

Implementation of the proposed project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Potentially significant impact(s) include:

Impact-EN-3: Potential Inconsistency with Applicable Energy Use Reduction Plans (All Project Components). The proposed project has the potential to result in an inconsistency with the District's CAP and the City's CAP as the proposed project does not include measures specific to either CAP.

Mitigation Measures

Implement **MM-GHG-2: Comply with District CAP Measures**, and **MM-GHG-3: Comply with the Applicable City CAP Measures.** See Section 4.6.

Level of Significance after Mitigation

Implementation of **MM-GHG-2** and **MM-GHG-3** would ensure compliance with the District's CAP and the City's CAP, respectively, and would reduce impacts to less than significant. Mitigation measure **MM-GHG-2** is designed to ensure that the District's CAP measures will be incorporated into the proposed project. Mitigation measure **MM-GHG-3** is designed to ensure that applicable City CAP measures will be incorporated into the City Program Component. As such, any potential inconsistency would be avoided, and **Impact EN-3** would be reduced to less than significant.

Section 4.6

Greenhouse Gas Emissions and Climate Change

4.6.1 Overview

This section describes existing conditions as well as applicable laws and regulations pertaining to greenhouse gas (GHG) emissions and climate change. It also analyzes the proposed project's consistency with (1) the District's Climate Action Plan (CAP) reduction targets, the City's CAP, and regulatory programs outlined in the Scoping Plan and adopted by the California Air Resources Board (CARB) or other California agencies to reduce GHG emissions in 2020 and (2) the post-2020 reduction targets set forth through Executive Order (EO) S-03-05 and EO B-55-18 and Senate Bill (SB) 32 as well as plans, policies, and regulations promulgated to reduce GHG emissions post-2020. This section also describes whether the project would exacerbate any existing and/or projected damage to the environment, including damage to structures and sensitive resources, as a result of predicted climate change effects, particularly sea-level rise.

Table 4.6-1 summarizes the significant impacts and mitigation measures discussed in this section.

Table 4.6-1. Summary of Significant Greenhouse Gas and Climate Change Impacts and Mitigation Measures

Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-GHG-1: Inconsistency with District and City Climate Action Plan Numerical Targets (All Project Components)	**MM-GHG-1:** Implement Diesel Emission-Reduction Measures During Project Construction and Operation (All Project Components) **MM-GHG-2:** Comply with District CAP Measures (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Bayshore Bikeway Component) **MM-GHG-3:** Comply with the Applicable City CAP Measures (City Program – Development Component) **MM-GHG-4:** Use Modern Harbor Craft for Waterside Construction Activities (GB Capital Component and Balanced Plan) **MM-GHG-5:** Implement Electric Heating and Zero-	Significant and Unavoidable	With mitigation, project-related GHG emissions would achieve the numerical efficiency targets for lodging uses, but because it cannot be stated with certainty that the project would result in emissions that would represent a fair share of the requisite reductions toward the statewide carbon neutrality goal, impacts would be significant after mitigation.

Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
	Net-Energy Buildings (GB Capital Component, Balanced Plan, City Program – Development Component) **MM-GHG-6:** Implement a Renewable Energy Project On Site, or Other Verifiable Actions or Activities on Tidelands or Within Offsite Tidelands, or Within an Another Adjacent Member City, or Purchase the Equivalent GHG Offsets from a CARB–Approved Registry or a Locally Approved Equivalent Program (Balanced Plan and GB Capital Component) **MM-GHG-7:** Implement a Renewable Energy Project On Site, or Other Verifiable Actions or Activities within National City or Within an Adjacent Community, or Purchase the Equivalent GHG Offsets from a CARB–Approved Registry or a Locally Approved Equivalent Program (City Program – Development Component)		
Impact-GHG-2: Inconsistency with District Climate Action Plan and Only Partial Consistency with Statewide Greenhouse Gas Reduction Plans, Policies, and Regulatory Programs (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Bayshore Bikeway Component)	Implement mitigation measures **MM-GHG-1, MM-GHG-2, MM-GHG-4,** and **MM-GHG-5**	Less than Significant	Mitigation would ensure consistency with plans, policies, and regulatory programs.

Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-GHG-3: Inconsistency with City Climate Action Plan; Only Partial Consistency with Statewide Greenhouse Gas Reduction Plans, Policies, and Regulatory Programs (City Program – Development Component, a Portion of the Bayshore Bikeway Component, and a Portion of the GB Capital Component).	Implement mitigation measures **MM-GHG-1, MM-GHG-3, MM-GHG-4,** and **MM-GHG-5**	Less than Significant	Mitigation would ensure consistency with plans, policies, and regulatory programs.

4.6.2 Existing Conditions

This section provides a discussion of existing understanding of global climate change and its effects. It also provides an explanation regarding GHG emissions as well as energy resources associated with to the project area.

4.6.2.1 Global Climate Change

The process known as the *greenhouse effect* keeps the atmosphere near the Earth's surface warm enough for the successful habitation of humans and other life forms. GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), perfluorinated carbons (PFCs), sulfur hexafluoride (SF_6), and hydrofluorocarbons (HFCs), in addition to water vapor. These six gases are also identified as GHGs in Section 15364.5 of the State CEQA Guidelines. Within this chapter, GHG emissions may be referred to as simply *emissions* or *pollutants of concern*.

Sunlight in the form of infrared, visible, and ultraviolet light passes through the atmosphere. Some of the sunlight striking the Earth is absorbed and converted to heat, which warms the surface. The surface emits infrared radiation to the atmosphere where some of it is absorbed by GHGs and re-emitted toward the surface. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thereby enhancing the greenhouse effect and amplifying warming of the Earth (National Park Service 2019).

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution. Rising atmospheric concentrations of GHGs, in excess of natural levels, enhance the greenhouse effect, which contributes to global warming of the Earth's lower atmosphere. This warming induces large-scale changes in ocean circulation patterns, precipitation patterns, global ice cover, biological distributions, and other aspects of Earth's systems in a process collectively referred to as *climate change*.

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants (TACs). Criteria air pollutants and TACs occur locally or regionally, and local concentrations respond to locally implemented control measures. However, the long atmospheric lifetimes of GHGs allow them to be transported great distances from sources and become well mixed, unlike criteria air pollutants, which typically exhibit strong concentration gradients away from point sources. GHGs and global climate change represent cumulative impacts; that is, GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change.

4.6.2.2 Principal Greenhouse Gases

The GHGs listed by the Intergovernmental Panel on Climate Change (IPCC) (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) (2015) are discussed in this section in order of abundance in the atmosphere. The principal characteristics surrounding these pollutants are discussed below. California law and the State CEQA Guidelines contain a similar definition of GHGs (Health and Safety Code Section 38505(g); 14 California Code of Regulations [CCR] Section 15364.5). Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic (human-made) sources. Consequently, the primary GHGs of concern associated with the project are CO_2, CH_4, and N_2O. Minor amounts of HFCs, which are considered GHGs with a high global warming potential (GWP), may be generated by leaking air conditioners and refrigerators.

- **CO_2** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, and trees and wood products; respiration; and chemical reactions (e.g., those associated with the production of cement). CO_2 is removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
- **CH_4** is emitted during the production and transport of coal, natural gas, and oil. CH_4 is also produced by livestock operations and agricultural practices as well as the decay of organic waste in municipal solid waste landfills.
- **N_2O** is emitted during agricultural and industrial activities as well as the combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method for comparing GHG emissions is the GWP methodology defined in the IPCC reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO_2e), which compares the gas in question to that of the same mass of CO_2 (which has a GWP of 1 by definition). The GWP values used in this report are based on the IPCC Fourth Assessment Report and United Nations Framework Convention on Climate Change reporting guidelines and defined in Table 4.6-2. The Fourth Assessment Report GWP values are consistent with those used in CARB's 2018 California GHG inventory and CARB's 2017 Scoping Plan Update (CARB 2017a, 2018; District 2018). Table 4.6-2 lists the GWP of CO_2, CH_4, and N_2O and their lifetimes in the atmosphere.

Table 4.6-2. Lifetimes and GWPs of Key GHG

Gas	GWP (100 years)	Lifetime (years)[1]
CO_2	1	varies
CH_4	25	12
N_2O	298	114

Source: CARB 2019a.
[1] Defined as the half-life of the gas.

All GWPs used to assess attainment of the state's 2020 and 2030 reduction targets are considered over a 100-year timeframe in CARB's GHG inventory (as shown in Table 4.6-2). Moreover, short-lived climate pollutants (SLCPs), such as black carbon, HFCs, and CH_4, are powerful climate forcers that have a dramatic and detrimental effect on air quality, public health, and climate change. These pollutants have a warming influence on the climate that is many times more potent than that of CO_2.

Recognizing their short-term lifespan and warming impact, SLCPs are measured in terms of CO_2e using a 20-year timeframe. The use of GWPs with a time horizon of 20 years captures the importance of the SLCPs and offers a better perspective with respect to the speed at which SLCP emission controls affect the atmosphere relative to CO_2 emission controls. The SLCP Reduction Strategy, which is discussed below under Section 4.6.3, *Laws and Regulations*, addresses the three primary SLCPs—CH_4, HFC gases, and anthropogenic black carbon (CARB 2017a).

4.6.2.3 Greenhouse Gas Inventories

A GHG inventory is a quantification of all GHG emissions and sinks[1] within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a particular building or person). Although many processes are difficult to evaluate, several agencies have developed tools to quantify emissions from certain sources.

Table 4.6-3 outlines the most recent global, national, statewide, and local GHG inventories to help contextualize the magnitude of potential project-related emissions.

Table 4.6-3. Global, National, State, and Local GHG Emissions Inventories

Emissions Inventory	CO_2e (metric tons)
2010 IPCC Global GHG Emissions Inventory	52,000,000,000
2019 EPA National GHG Emissions Inventory	6,558,300,000
2018 CARB State GHG Emissions Inventory	425,300,000
2016 San Diego Region GHG Emissions Inventory	26,000,000
2019 City of San Diego GHG Emissions Inventory	9,600,000
2005 City of National City GHG Emissions Inventory	550,714
2016 District GHG Emissions Inventory	504,554

Sources: IPCC 2014; EPA 2021; CARB 2021; City of San Diego 2021; City of National City 2011; District 2018; SANDAG 2021.
EPA = U.S. Environmental Protection Agency; SANDAG = San Diego Association of Governments

[1]A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

Impacts of Global Climate Change

Climate change is a complex process that has the potential to alter local climatic patterns and meteorology. Although modeling indicates that climate change will result in sea-level rise (both globally and regionally) as well as changes in climate and rainfall, among other effects, there remains uncertainty with regard to characterizing precise *local* climate characteristics and predicting precisely how various ecological and social systems will react to changes in the existing climate at the local level. Regardless of this uncertainty, it is widely understood that substantial climate change is expected to occur in the future, although the precise extent will take further research to define. Consequently, the entire San Diego region, including the project area, will be affected by changing climatic conditions.

Research efforts coordinated through CARB, the California Energy Commission (CEC), the California Environmental Protection Agency, the University of California system, and others are examining the specific changes to California's climate that will occur as the Earth's surface warms. Potential impacts include rising sea levels along the California coastline; extreme heat conditions; an increase in heat-related human deaths, infectious diseases, and respiratory problems caused by deteriorating air quality; reduced snow pack and streamflow in the Sierra Nevada, affecting winter recreation and water supplies; potential increases in the severity of winter storms, affecting peak streamflows and causing flooding; changes in growing conditions that could affect California agriculture, causing variations in crop quality and yield; and changes in the distribution of plant and wildlife species due to changes in temperature, competition from colonizing species, changes in hydrologic cycles, changes in sea levels, and other climate-related effects.

With respect to the San Diego region, the *San Diego Region Report* produced under California's Fourth Climate Change Assessment (Kalansky et al. 2018) provides a summary of potential climate change impacts in the region, which include the following:

- **Increased temperatures**: The San Diego region will see hotter and drier days and more frequent, more intense, and longer heat waves. Average annual temperatures are expected to increase by 5–10 degrees Fahrenheit (°F) by the end of the century. In coastal regions, the marine layer can help mitigate temperature increases. However, the impact of clouds associated with the marine layer requires further research; current climate models do not provide an adequate representation of the clouds.
- **More volatile precipitation:** Rainfall will continue to be highly variable, with wet and dry extremes intensifying. Droughts are expected to occur more often and be more severe, while individual precipitation events are expected to intensify. At the seasonal level, the region is expected to see wetter winters and drier springs.
- **Greater wildfire risk:** Drier autumns are expected to increase risks related to wildfires, particularly large, catastrophic wildfires driven by Santa Ana wind events.
- **Impacts on human health:** Climate change is expected to exacerbate public health impacts. Specifically, more intense heat waves, warmer temperatures, and wildfires are expected to exacerbate heat-related illness, adverse health impacts from smoke, and the prevalence of vector-borne diseases. Certain populations are particularly vulnerable to such health impacts, including those with preexisting or underlying health conditions, those with chronic illnesses (e.g., asthma), the elderly, and the uninsured.

- **Reductions in fresh water:** Climate change is expected to reduce the San Diego region's imported and local water supplies and increase water demand. By mid-century, two of the major imported water supplies are expected to decline—specifically, State Water Project imports are expected to drop by 10% or more, while Colorado River imports are expected to drop by 10%–45%. Meanwhile, demand is projected to increase by 30% by 2040.
- **Rising sea levels:** Projected sea-level rise, coastal erosion, and increasing storm surges may cause fragile sea cliffs to collapse, shrink beaches, and destroy coastal property and ecosystems. Along the San Diego County coast, sea levels are expected to rise by around 1 foot by mid-century and then rise rapidly through the end of the century to around 3 feet. Higher sea levels, combined with high-tide events, are expected to lead to higher extreme water levels.
- **Impacts on habitats:** Climate change is a significant stressor for San Diego's natural lands, which are among the most biodiverse in the United States. Climate stressors—such as rising temperatures, a greater portion of rainfall falling as extreme precipitation, more frequent and intense droughts, and rising sea levels—may also stress habitats and native species, thereby harming biodiversity. For instance, as sea levels rise, wetlands migrate upstream and inland. However, in heavily urbanized areas such as San Diego, migration is limited by development, causing the wetlands and populations that rely upon them to shrink.

Given the District's location along the waterfront, sea-level rise is the primary concern as an effect of climate change and discussed in more detail below.

Sea-Level Rise

Projected sea-level rise as an effect of climate change is expected to increase in areas that experience flooding along San Diego Bay. Coastal and low-lying areas, such as the project site, are particularly vulnerable to future sea-level rise. More specifically, sea-level rise is a particular concern when considered in combination with future storm events and coastal flooding. A scenario with 100-year floodflows that coincide with high tides, taking into account sea-level rise over a 50- or 100-year horizon, would dramatically increase the risk of flooding in the project vicinity.

The San Diego Bay Vulnerability Assessment conducted by ICLEI – Local Governments for Sustainability found that the greatest concern from sea-level rise will be an increase in the frequency and intensity of the kind of flooding that the region already experiences due to waves, storm surge, El Niño events, and very high tides. Furthermore, starting around mid-century, San Diego Bay may become more susceptible to regularly occurring inundation during daily high-tide events at certain locations and assets. The most vulnerable areas in the community include stormwater management facilities, wastewater collection facilities, shoreline parks and public access, transportation facilities, commercial buildings, and ecosystems (ICLEI 2012).

Governor Schwarzenegger's EO S-13-08, issued in November 2008, directed state agencies to plan for sea-level rise and coastal impacts. In response to this, several iterations of sea-level rise guidance have been developed to help state agencies incorporate sea-level rise into project planning and decision-making. In late 2018, the California Coastal Commission (CCC) released the *Sea-Level Rise Policy Guidance* (CCC 2018), which draws on sea-level rise projections and other information from 2017 and 2018 Ocean Protection Council (OPC) documents and provides recommendations for addressing sea-level rise in LCPs and Coastal Development Permits.

Based on District best practices, the project is evaluated against the 95th percentile sea-level rise projections, meaning that there is a 95% chance that future sea levels will remain at or below the projection. The 95th percentile projections fall between the CCC's *low risk aversion* and *medium-high risk aversion* thresholds for 2030, 2050, and 2100. Consistent with state guidance, for 2030 and 2050, this analysis only considers projections based on the high GHG emissions scenario (Representative Concentration Pathway [RCP] 8.5) because, prior to 2050, the differences in sea-level rise projections across emissions scenarios are minor (OPC 2018). However, for 2100, the analysis considers projections for both moderate (RCP 4.5) and high (RCP 8.5) emissions scenarios because, after 2050, sea-level rise projections for different emissions scenarios diverge more substantially (OPC 2018).

The analysis uses the CCC-recommended U.S. Geological Survey Coastal Storm Modeling System (CoSMoS) tool to map inundation at the project site under the various scenarios for sea-level rise and storm surge. CoSMoS provides maps of projected flood extents and depths during average and storm conditions for 10 sea-level rise scenarios with increases between 0 and 2 meters, in 0.25-meter increments. Table 4.6-4 displays a summary of CCC sea-level rise projections and the corresponding closest CoSMoS layers selected for the inundation analysis.

Table 4.6-4. Sea-Level Rise Projections for San Diego (feet)

	Sea-Level Rise Projections (feet)			
Year	Low Risk Aversion (83rd percentile projection)[1]	Medium-High Risk Aversion (99.5th percentile projection) [1]	District's Selection (95th percentile projection for 2030, 2050, and 2100 RCP 8.5) [1]	CoSMoS Layer Corresponding to District's Selection
2030	0.6	0.9	0.7	0.25 m (0.82 ft)
2050	1.2	2.0	1.4	0.5 m (1.64 ft)
2100 (RCP 4.5)	2.5	5.8	2.5[2]	0.75 m (2.46 ft)
2100 (RCP 8.5)	3.6	7.0	4.5	1.5 m (4.92 ft)

[1] Projections obtained from OPC 2018, which serves as the basis for CCC 2018.
[2] The District's selection for the 2100 RCP 4.5 is the 83rd percentile projection, while all other time frames and RCPs correspond to the 95th percentile projections. This selection provides a greater understanding of the range of potential impacts in the later years of the project's useful life.

4.6.3 Laws and Regulations

The State of California has adopted several pieces of legislation addressing various aspects of climate change, GHG mitigation, energy efficiency, and renewable energy. Much of this establishes a broad framework for the state's long-term GHG and energy reduction goals and climate change adaptation program. The former and current governors of California have also issued several EOs related to the state's evolving climate change policy. Moreover, court rulings have helped define acceptable practices for adequate analysis of GHG emissions under CEQA, including setting thresholds, properly defining a level of significance, and identifying mitigation measures. Summaries of key policies, EOs, regulations, and pieces of legislation that are relevant to the proposed project are provided below (presented separately for GHG emissions and the effects of climate change).

4.6.3.1 Greenhouse Gas Emissions

Summaries of key GHG policies, EOs, regulations, and pieces of legislation that are relevant to the proposed project are provided below.

Federal

There is currently no overarching federal law specifically related to climate change or the reduction of GHG emissions. During the Obama administration, the U.S. Environmental Protection Agency (EPA) began developing GHG regulations under the federal Clean Air Act (CAA); however, no federal law is in effect at this time. At the state level, California has adopted broad statewide legislation to address various aspects of climate change and GHG emissions mitigation.

The EPA has issued an endangerment finding and cause or contribute finding for six key well-mixed GHGs—CO_2, CH_4, N_2O, HFC, PFC, and SF_6. The EPA has also issued the Greenhouse Gas Reporting Rule, which sets CO_2-based permitting criteria for certain industrial facilities. The Obama administration developed the Clean Power Plan in August 2015 to reduce CO_2 emission from electric power generation by 32% within 25 years, relative to 2005 levels. However, on February 9, 2016, the Supreme Court stayed implementation of the Clean Power Plan pending judicial review, which is still ongoing as of this analysis. As discussed in Section 4.2, *Air Quality and Health Risk*, the National Highway Traffic Safety Administration (NHTSA) and EPA have also proposed limits on future light-duty vehicle emission standards through the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule.

Fuel Economy Standards

Corporate Average Fuel Economy Standards: The Corporate Average Fuel Economy (CAFE) Standards were first enacted in 1975 to improve the average fuel economy of cars and light-duty trucks. On August 2, 2018, EPA and NHTSA proposed to amend the fuel efficiency standards for passenger cars and light trucks and establish new standards, covering model years 2021 through 2026, by maintaining the current model-year 2020 standards through 2026 (SAFE Vehicles Rule). On September 19, 2019, EPA and NHTSA issued a final action on the One National Program Rule, which is consider Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards. The One National Program Rule enables EPA and NHTSA to provide nationwide uniform fuel economy and GHG vehicle standards by (1) clarifying that federal law preempts state and local tailpipe GHG standards, (2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and (3) withdrawing California's CAA preemption waiver to set state-specific standards.

EPA and NHTSA published their decisions to withdraw California's waiver and finalize regulatory text related to the preemption on September 27, 2019 (84 *Federal Register* [FR] 51310). California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. United States Department of Transportation et al.,* 1:19-cv-02826, U.S. District Court for the District of Columbia). On October 28, 2019, the Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to transfer the suit to the D.C. Circuit (*Union of Concerned Scientists v. National Highway Traffic Safety Administration*). Opening briefs for the petition are currently scheduled to be completed on November 23, 2020. The lawsuit filed by California and others is stayed pending resolution of the petition.

EPA and NHTSA published final rules to amend and establish national CO_2 and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 FR 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 50.4 to 40.5 miles per gallon in future years. This new rule rolls back California fuel efficiency standards for on-road passenger vehicles. California and 22 other states are currently challenging this new rule in the court system; it is reasonably foreseeable that the state will be successful in its legal challenges, for the reasons outlined in the state's lawsuit and on the CARB website. Furthermore, on January 20, 2021, President Biden signed an executive order directing the government to revise fuel economy standards, with the goal of further reducing emissions. In February 2021, the Department of Justice also asked courts to put the litigation on hold while the administration "reconsidered the policy decisions of a prior administration."

State

Executive Orders

Three primary EOs were passed by the executive branch of the State of California related to the state's GHG reduction goals:

- **EO S-03-05:** Established GHG reduction targets for 2010 (2000 emission levels), 2020 (1990 emission levels), and 2050 (80% below 1990 levels);
- **EO S-30-15:** Established a GHG reduction target for 2030 (40% below 1990 levels); and
- **EO B-55-18:** Established a new statewide goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Although this EO has not been codified in law, the EO directs CARB to ensure future climate change scoping plans (discussed below) identify and recommend measures to achieve the carbon neutrality goal. Given this directive, it is likely that the 2045 carbon neutrality goal will make its way into future updates to the Scoping Plan, which must be updated every 5 years.

EOs apply to state government operations but are not law and do not apply to non-governmental entities and facilities. However, the EOs are based on the scientific consensus regarding GHG reductions needed to stabilize atmospheric GHG levels and, absent any specific laws or regulations with broader applicability, EOs are used as guidance for the reduction of GHGs.

Legislative Reduction Targets

In an effort to implement the EOs through state law, the state has passed legislation that establishes a broad framework for a long-term GHG reduction and climate change adaptation program at the state level. The two primary bills related to GHG reduction targets are:

- Assembly Bill (AB) 32, which codified the 2020 reduction target of EO S-03-05 (i.e., by 2020, reach the GHG emissions levels of 1990). AB 32 also gave CARB authority to develop a plan that describes the approach California will take to achieve GHG reduction targets. CARB's plan to achieve the 2020 reduction target is referred to as the Scoping Plan; and
- SB 32, which codified the 2030 reduction target of EO B-30-15 (i.e., by 2030, reach statewide GHG emission levels of 40% below 1990 levels). As part of SB 32, CARB updated the Scoping Plan to achieve the 2030 reduction target in 2017.

Reduction Plans

CARB has various air quality and climate goals as well as several plans for achieving the goals, including attaining and maintaining air quality standards, achieving GHG reductions, reducing petroleum use, reducing community health risks from exposure to air pollution, and increasing renewable energy and energy efficiency.

- **AB 32 Scoping Plan**: The AB 32 Scoping Plan identifies specific measures to reduce GHG emissions to 1990 levels by 2020 and requires CARB and other state agencies to develop and enforce regulations and other initiatives to reduce GHG emissions. The AB 32 Scoping Plan, adopted in 2008, comprises the state's roadmap for meeting AB 32's reduction target. Specifically, the Scoping Plan articulates a key role for local governments by recommending that they establish GHG emissions reduction goals for both their municipal operations and the community that are consistent with those of the state (i.e., approximately 15% below current levels) (CARB 2008). The AB 32 Scoping Plan was updated in 2014 to reflect the economic downturn (CARB 2014).
- **2017 Scoping Plan Update:** The 2017 Scoping Plan Update represents the state's roadmap to achieving the long-term GHG reduction targets of SB 32. The Scoping Plan itself integrates various CARB regulations and strategies, including cap-and-trade, a low-carbon fuel standard (LCFS), SB 350, the Sustainable Freight Action Plan, the Mobile-Source Strategy, and the SLCP Reduction Strategy. The Scoping Plan Update proposes meeting the 2030 goal by accelerating the focus on zero and near-zero technologies for moving freight; continuing to invest in renewables; increasing the use of low-carbon fuels, including electricity and hydrogen; strengthening efforts to reduce emissions of SLCPs (CH_4, black carbon, and fluorinated gases); furthering efforts to create walkable communities with expanded mass transit and other alternatives to traveling by car; continuing the cap-and-trade program; and ensuring that natural lands become carbon sinks to provide additional emissions reductions and flexibility in meeting the target. The Scoping Plan Update also recommends that local governments achieve community-wide efficiency on the order of 6 metric tons of CO_2e equivalent ($MTCO_2e$) per capita by 2030 and 2 $MTCO_2e$ per capita by 2050 and use the recommendations in local climate action planning (CARB 2017a).

  Reduction measures in the Scoping Plan are grouped into the following end-use sectors: Agriculture, Commercial and Residential, Electric Power, High GWP, Industrial, Recycling and Waste, and Transportation.
- **Sustainable Freight Action Plan:** The Sustainable Freight Action Plan provides an integrated action plan that establishes clear targets to improve freight efficiency, transition to zero-emission technologies, and increase the competitiveness of California's freight system. The Sustainable Freight Action Plan, which was developed by several state agencies, is a recommendation document that integrates investments, policies, and programs across several state agencies to help realize a singular vision for California's freight transport system. The plan provides a recommendation on a high-level vision and broad direction to the governor to consider for state agencies to utilize when developing specific investments, policies, and programs related to the freight transport system that serves the state's transportation, environmental, and economic interest. The Scoping Plan incorporates potential actions from the Sustainable Freight Action Plan that provide GHG emissions reduction benefits.

- **Mobile-Source Strategy:** CARB developed the Mobile Source Strategy to provide an integrated action plan that establishes a unified planning perspective and common vision for transforming the mobile sector. The Mobile-Source Strategy supports multiple planning efforts, including State Implementation Plans, the Scoping Plan, the SLCP Reduction Strategy (discussed below), and the Sustainable Freight Action Plan (discussed above). The Mobile-Source Strategy outlines CARB's approach to reducing emissions from mobile sources. The strategy includes actions to modernize and upgrade transportation infrastructure, enhance system-wide efficiency and mobility options, and promote clean economic growth. The Mobile-Source Strategy is updated every 5 years. The latest update is the 2020 Draft Mobile-Source Strategy, which was released for public review in November 2020. Final adoption of the 2020 Mobile-Source Strategy is expected in September 2021 (CARB 2020b).
- **SLCP Reduction Strateg**y: SB 605 directed CARB, in coordination with other state agencies and local air districts, to develop a comprehensive SLCP Reduction Strategy. SB 1383, adopted in 2013, requires CARB to develop and implement an SLCP Reduction Strategy with the following 2030 goals: 40% reduction in CH_4, 40% reduction in HFC gases, and 50% reduction in anthropogenic black carbon. The bill also establishes the following targets for reducing organic waste in landfills and CH_4 emissions from dairy and livestock operations: 50% reduction in organic waste disposal from the 2014 level by 2020, 75% reduction in organic waste disposal from the 2014 level by 2025, and 40% reduction in CH_4 emissions from livestock manure management operations and dairy manure management operations below the dairy sector's and livestock sector's 2013 levels by 2030.

  Per its directive, CARB adopted the SLCP Reduction Strategy in March 2017, establishing a path to decrease SLCPs from various sectors of the economy. Strategies span from wastewater and landfill practices and CH_4 recovery to reducing natural gas leaks and consumption. The SLCP Reduction Strategy also identifies measures that can reduce HFC emissions through incentive programs and limitations on the use of high-GWP refrigerants in new refrigeration and air-conditioning equipment (CARB 2017b).
- **Draft 2030 Natural and Working Lands Implementation Plan**: In a joint interagency effort, the California Environmental Protection Agency, California Department of Food and Agriculture, California Natural Resources Agency, CARB, and California Strategic Growth Council released the *Draft California 2030 Natural and Working Lands Climate Change Implementation Plan* (Draft Plan) in January 2019. The Draft Plan is specific to the natural and working lands sector, which includes farmland, rangeland, forests, grasslands, wetlands, riparian areas, seagrass, and urban green space. The Draft Plan addresses carbon flux from this sector, including the ever-dynamic changes in both GHG emissions and carbon sequestration associated with management of these lands, and includes reductions in GHGs and black carbon from forest fires. It also includes fire management goals. The Draft Plan serves as a multidisciplinary approach for conserving and maintaining a resilient natural and working lands sector that will gradually shift from being a net carbon emitter to being a net carbon sink while also improving air quality, water quality, wildlife habitat, and recreation and providing other benefits.

  The Draft Plan sets goals for, at a minimum, increasing the rate of state-funded soil conservation practices fivefold, doubling the rate of state-funded forest management and restoration efforts, tripling the rate of state-funded oak woodland and riparian reforestation, and doubling the rate of state-funded wetland and seagrass restoration. The measures included in the Draft Plan are

projected to result in cumulative emissions reductions of -36.6 to -11.7 million $MTCO_2e$ by 2045 (California Environmental Protection Agency et al. 2019).

Transportation Planning

- **SB 375, Sustainable Communities Strategy (2015):** SB 375 provides for a new planning process that coordinates land use planning, regional transportation plans (RTPs), and funding priorities, originally in order to help California meet the GHG reduction goals established in AB 32. SB 375 requires RTPs to incorporate a "sustainable communities strategy" (SCS). The goal of the SCS is to reduce regional vehicle miles traveled (VMT) through land use planning and consequent transportation patterns. SCS measures include transportation demand management, transportation system management, and pricing. SB 375 also includes provisions for streamlined CEQA review for some infill projects such as transit-oriented development. In 2018, CARB revised the San Diego Association of Governments (SANDAG) GHG target for per-capita emissions reductions to 15% by 2020 and 19% by 2035, based on a 2005 baseline.

Fuel Economy Standards

- **Pavley I and II (Passenger Cars)**: AB 1493 (known as Pavley I) provided the nation's first GHG standards for automobiles. AB 1493 required CARB to adopt vehicle standards that will lower GHG emissions from new light-duty autos to the maximum extent feasible beginning in 2009. Additional strengthening of the Pavley standards (referred to previously as Pavley II and now referred to as the Advanced Clean Cars measure) was adopted for vehicle model years 2017–2025 in 2012.

  The SAFE Vehicle Rule Part One and the Final Rule (discussed above) revokes California's authority to set its own GHG emissions standards and establish zero-emission vehicle (ZEV) mandates in California, which affects some of the underlying assumptions in CARB's EMFAC models. CARB has developed guidance and adjustment factors to apply to EMFAC emissions outputs to adjust for revised (reduced) ZEV sales in future years and associated increases in criteria pollutant and GHG emissions.

- **Low-Carbon Fuel Standard:** The LCFS mandates a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020. In September 2018, the LCFS regulation was amended to increase the statewide goal to a 20% reduction in the carbon intensity of California's transportation fuels by at least 2030. Note that although the LCFS regulation was amended and extended to ensure compliance with the 2030 Scoping Plan, CARB ultimately adopted a more stringent target (20% reduction in carbon intensity by 2030) than assumed in the 2030 Scoping Plan (18% reduction in carbon intensity by 2030). Therefore, future updates to the Scoping Plan are likely to include the more stringent version of the LCFS that was adopted by CARB. The majority of the emissions benefits due to the LCFS come from the production cycle (upstream emissions) of the fuel rather than the combustion cycle (tailpipe).

- **Phase I and II Truck Standards:** CARB approved the Tractor-Trailer Greenhouse Gas Regulation to reduce GHG emissions by requiring the use of aerodynamic tractors and trailers that are also equipped with tires that have low rolling resistance. The regulation applies to certain Class 8 tractors manufactured for use in California and is harmonized with the parallel EPA and NHTSA Phase I heavy-duty truck standards. CARB amended the Tractor-Trailer

Greenhouse Gas Regulation in 2016 to align with EPA and NHTSA Phase II heavy-duty truck standards.

Renewable Energy

- **SB 1078 and SB 107:** Established California's Renewables Portfolio Standard (RPS) and obligated investor-owned utilities, energy service providers, and Community Choice Aggregations to procure an additional 1% of retail sales per year from eligible renewable sources until 20% is reached (by 2010). The California Public Utilities Commission and CEC are jointly responsible for implementing the program. SB X 1-2, called the California Renewable Energy Resources Act, obligates all California electricity providers to obtain at least 33% of their energy from renewable resources by 2020. As of 2018, San Diego Gas and Electric's (SDG&E's) eligible renewable procurement was approximately 45% (SDG&E 2018).
- **SB 350:** SB 350 (De León, also known as the Clean Energy and Pollution Reduction Act of 2015) was approved by the legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions are to require the following by 2030: (1) an RPS of 50% and (2) a doubling of efficiency for existing buildings.
- **SB 100**: SB 100 (De León, also known as the California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases) was approved by the legislature and signed by Governor Brown in September 2018. The bill establishes a new RPS target of 50% by 2026, increases the RPS target in 2030 from 50% to 60%, and establishes a goal of 100% zero-carbon energy sources by 2045.

Maritime

- **Regulation to Reduce Emissions from Diesel Auxiliary Engines on Ocean-Going Vessels While at Berth at California Ports**: CARB has adopted at-berth regulations that require auxiliary diesel engines on ocean-going vessels (OGVs) (i.e., container, passenger cruise, and refrigerated cargo vessels) to be shut down for specified percentages of a fleet's visit and the fleet's at-berth auxiliary engine power generation to be reduced by the same percentages. Vessels can either plug into the electrical grid (i.e., shore power, otherwise known as cold-ironing or alternative maritime power) or use an alternative emission control device. The law sets compliance percentages that phase in over time. By 2014, vessel operators were required to shut down their auxiliary engines at berth for 50% of the fleet's visit and reduce onboard auxiliary engine power generation by 50%. The specified percentages increased to 70% in 2017 and 80% in 2020. Vessel operators can also choose an emissions reduction equivalency alternative. The regulation requires a 10% reduction in OGV hoteling emissions starting in 2010, increasing to an 80% reduction requirement by 2020 (CARB 2007). Note that in developing the at-berth regulation, CARB weighed three main factors in evaluating a vessel category, the frequency with which a vessel visited a port, the time a vessel stayed in port, and the power usage while docked. Based on these criteria, the regulation affects only container ships, passenger ships, and refrigerated cargo ships at Los Angeles, Long Beach, Oakland, San Diego, San Francisco, and Hueneme (CARB 2007). As noted, this regulation does not apply to auto carrier vessels or general cargo vessels.
- **Commercial Harbor Craft Regulation**: The Commercial Harbor Craft Regulation was adopted in 2007 to reduce emissions from diesel engines operating within 24 miles of the California coast (i.e., regulated California waters). The rule was amended in 2010 and will be fully

implemented by 2022. The rule includes regulations for commercial harbor craft vessels, including ferries, tugboats, towboats, excursion vessels, crew and supply vessels, pilot vessels, work boats, and commercial and charter fishing boats (CARB 2020a).

Building Efficiency

- **California Energy Efficiency Standards for Non-Residential Buildings—Green Building Code:** California adopted the Green Building Standards Code, which contains aggressive energy efficiency standards for new residential and non-residential buildings that are updated every few years. The most recent update was the 2019 Building Energy Efficiency Standards, which was adopted in May 2018 and took effect on January 1, 2020. Non-residential buildings will be 30% more energy efficient because of updates to heating, ventilating, and air-conditioning standards as well as lighting standards. Future standards are expected to result in zero net energy (ZNE) for newly constructed commercial buildings (CEC 2018).

Cap-and-Trade

- CARB adopted the Cap-and-Trade Program in October 2011. The Cap-and-Trade Program is a market-based system with an overall emissions limit for affected emission sources. Affected sources include in-state electricity generators, hydrogen production, petroleum refining, and other large-scale manufacturers and fuel suppliers and distributors. The original Cap-and-Trade Program set a compliance schedule that ran through 2020. AB 398 extended the program through 2030 and required CARB to make refinements, including establishment of a price ceiling. Revenues generated from the Cap-and-Trade Program are used to fund various programs. AB 398 established post-2020 funding priorities that include (1) air toxics and criteria pollutants, (2) low- and zero-carbon transportation, (3) sustainable agricultural practices, (4) healthy forests and urban greening, (5) SLCPs, (6) climate adaptation and resiliency, and (7) climate and clean energy research.

Regional

The AB 32 Scoping Plan does not provide an explicit role for local air districts in implementing AB 32, but it does state that CARB will work actively with air districts in coordinating emissions reporting, encouraging and coordinating GHG reductions, and providing technical assistance in quantifying reductions. The ability of air districts to control emissions (both criteria pollutants and GHGs) is provided primarily through permitting as well as through their role as a CEQA lead or commenting agency, the establishment of CEQA thresholds, and the development of analytical requirements for CEQA documents. To date, the San Diego Air Pollution Control District has not developed specific thresholds of significance with regard to addressing the GHG emissions in CEQA documents. Moreover, there are no regional regulations related to the project that require consideration of or adaptation to climate change impacts.

SANDAG has adopted and implemented several programs to promote GHG emission reductions and alternative forms of transportation. The San Diego Regional Bike Plan proposes a regional bicycle system of interconnected bicycle corridors, support facilities, and programs to make bicycling more practical and desirable to a broader range of people in our region. The Bayshore Bikeway is included in the San Diego Regional Bike Plan (SANDAG 2010).

Local

San Diego Unified Port District Programs

The District developed the Green Port Program to support the goals of the Green Port Policy, which was adopted in 2008. The Green Port Program was designed to achieve environmental sustainability goals at the District, including those related to water, energy, air, waste management, sustainable development, and sustainable business practices.

The District and SDG&E have also established a partnership to increase energy efficiency and reduce overall energy consumption. SDG&E currently allocates a portion of funds collected from utility customers to energy efficiency programs with local governments. The District uses some of those funds to develop educational energy efficiency programs, track energy consumption, perform energy audits, and implement energy retrofits. The District's energy efficiency programs benefit employees, tenants, and the general public.

Climate Action Plan

The District adopted a CAP in December 2013. The CAP includes an inventory of existing (2006) and projected emissions in 2020, 2035, and 2050 and identifies the District's GHG reduction goals and measures to be implemented to support meeting the statewide reduction goals set forth in AB 32 (1990 levels by 2020). Port-wide 1990 emissions were not quantified, given the activity data gaps; instead, a base year of 2006 was used to calculate reductions needed at the Port of San Diego (Port) to reach 1990 levels by 2020. Consistent with AB 32 targets, a 10% reduction target (471.3 million $MTCO_2e$ in 2006 and estimated 426.6 million $MTCO_2e$ in 1990 statewide) was used as the Port-wide reduction target for 2020.[2]

Sources throughout the project area that generate GHG emissions include tenant facilities (e.g., hotels, marinas), maritime activity (e.g., the movement of goods associated with marine terminal operations), and Port operations (e.g., Port-owned building energy consumption and fleet activity). The CAP's 2020 projections and reduction targets (to 1990 levels) for each sector are based on anticipated growth (e.g., increase in hotel rooms) for each emissions sector (e.g., mobile sources, building energy). For example, the CAP assumes a 5% annual growth in lodging-related uses between 2006 and 2020. Thus, the CAP and its reduction targets are specific to the District's geography, type and intensity of uses, and future-year projected conditions. Table 4.6-5 provides the CAP's 2006 baseline, projected future-year (2020) GHG emissions, projected future-year (2020) GHG emissions with implementation of state measures, and future-year GHG emission targets (1990 levels) for the Port as a whole. To achieve the requisite reductions, the CAP includes various reduction measures related to transportation and land use, alternative energy generation, energy conservation, waste reduction and recycling, and water conservation and recycling.

As mentioned above, a critical aspect of having a CAP that fits the criteria within State CEQA Guidelines Section 15183.5 is to have reduction targets that align with statewide goals. The CAP's reduction targets for 2020 parallel the state's commitment to reducing GHG emissions in AB 32 and go even further by identifying targets for a specific location, based on projected emissions specific to the District's geographic location as well as specific activity types and their associated sources.

[2] The CAP also includes projected emissions and some reduction policies to achieve the reduction target of 25% less than 2006 baseline levels by 2035 but does not yet quantify those reductions.

Therefore, because the CAP targets align with statewide goals through 2020, the CAP is consistent with AB 32. Although the CAP is consistent with the statewide GHG reduction target from AB 32, it does not include reduction quantification consistent with the statewide targets established for 2030 per SB 32. However, myriad measures from the CAP will be implemented well beyond the 2020 timeframe. The District intends to update the CAP with GHG emission reduction measures and methodologies that will comply with regulatory state programs designed to address state GHG emission reductions post-2020. Many of the measures in the existing CAP will continue to be implemented and result in emission benefits well beyond the 2020 timeframe, and many of the current measures will serve as a starting point in the development of post-2020 reduction measures. At the time of this analysis, however, there is no schedule to complete the update of the District's CAP. However, because the CAP has a reduction goal for 2035, and measures are in place to reduce emissions long term, consistency with the CAP is provided herein.

Table 4.6-5. GHG Emissions by Emission Sector Shown in the District's CAP ($MTCO_2e$ per year)

Sector	2006 Existing	2020 Business as Usual	2020 with State Measures
Electricity	173,192	208,231	147,133
Natural Gas	135,516	152,803	152,534
On-Road Transportation	314,870	410,069	317,708
Off-Road Transportation	172,929	233,528	207,268
Water Use	13,166	14,630	10,406
Waste	16,757	20,439	20,439
Total Emissions	826,429	1,039,700	855,489
2020 Target	—	745,695	

Source: District 2013.

Since adoption of the CAP, more refined data and updated methodologies have become available to estimate GHG emissions. CARB guidance states that it is good practice to recalculate historic emissions when methods are changed or refined. Given this, a recalibration of the 2006 baseline was deemed vital in tracking progress toward 2020 goals. This 2006 recalibration was included in the District's 2016 updated inventory, which was based on more locally specific and comprehensive datasets.

The 2016 inventory update provides emissions from the same sectors included in the CAP: electricity, natural gas, on-road and off-road transportation, water use, and waste. Table 4.6-6 provides a comparison of the recalibrated 2006 baseline and emissions generated during 2016. Total GHG emissions produced by all tenant, maritime, and Port activities in 2016 were estimated to be 507,823 $MTCO_2e$, which is 13% (or 73,856 $MTCO_2e$) below the revised 2006 baseline. This decrease in emissions is due to several factors, including reductions in OGV calls and berthing durations, increases in fuel economy for on-road vehicles, decreases in natural gas consumption, and decreases in the SDG&E electricity emission factor.

Table 4.6-6. Comparison of the District's Recalibrated 2006 Baseline and Calendar Year 2016 Emissions ($MTCO_2e$ per year)

Sector	Revised 2006	2016 Inventory
Electricity	117,526	101,381
Natural Gas	162,556	137,183
On-Road Transportation	136,619	124,957
Off-Road Transportation	132,571	113,812
Water Use	13,169	9,144
Waste	19,239	21,346
Total Emissions	581,680	507,823
2020 Target	523,512	
Change from CAP 2006 Due to Recalibration[1]	*(244,749)*	N/A

Source: District 2018.
[1] As shown in Table 4.6-5, the CAP's 2006 number was 826,429 $MTCO_2e$, which is 244,749 higher than the revised 2006 number of 581,680 $MTCO_2e$.

City of National City Climate Action Plan

As noted above in Section 4.6.3.3, CARB encourages local governments to adopt a reduction goal for emissions from municipal operations and move toward establishing similar goals for community emissions that parallel the state's commitment to reducing GHG emissions (CARB 2008). The City adopted its CAP in 2011. The CAP includes an inventory of existing (2005) community-wide emissions as well as an inventory of existing (2006) emissions from government operations. The CAP also provides forecasts for 2020 and 2030 community-wide emissions and emissions from government operations, based on growth associated with buildout of the City General Plan. The CAP establishes a reduction goal of 15% below 2005/2006 baseline emission levels (i.e., 468,107 $MTCO_2e$ for emissions community-wide and 4,315 $MTCO_2e$ for emissions from government operations) by 2020 to reach the goals set forth in AB 32 (i.e., 1990 levels by 2020). The CAP proposes measures and policies for the community as well as government operations that will allow the City to reach its reduction targets.

Community sources that generate GHG emissions within the city are associated with residential energy use, commercial/industrial energy use, fuel use for transportation, CH_4 generated from solid waste decomposition, and energy use for the delivery and processing of water and wastewater. Municipal sources of GHG emissions in the city are associated with fuel use for employees' commutes and the City's vehicle fleet, energy use in government buildings and facilities, CH_4 generated from government-related solid waste, energy use for public lighting, and energy use for potable water and sewage treatment. Proposed project components that fall within the City's jurisdiction are the City Program – Development Component, which involves construction and operation of a hotel, restaurant space, and retail space; portions of the Bayshore Bikeway Component; and a small portion of the GB Capital Component, which involves construction and operation of waterside improvements and a parking east of the marina. These are community uses; therefore, GHG emissions associated with their construction and operation would be part of the community emissions inventory and subject to the community emission targets and measures proposed by the City's CAP.

The CAP's 2020 projections and reduction targets are based on the growth projections associated with buildout of the City General Plan as well as compound annual growth rates for specific sectors

(e.g., for residential energy use, future growth in the number of dwelling units or, for fuel use for transportation, a future increase in daily VMT). Table 4.6-7 provides the CAP's 2005 community-wide baseline, projected future-year (2020 and 2030) business-as-usual (BAU) GHG emissions, and the future-year GHG emission target for 2020 (1990 levels). Although the City pledges to "strive to achieve additional reductions in GHG emissions by 2030," no formal reduction target for 2030 was established in the 2011 CAP.

Table 4.6-7. National City CAP – Existing and Forecast Community-Wide GHG Emissions by Sector ($MTCO_2e$ per year)

Sector	2005 Existing	2020 BAU Forecast	2030 BAU Forecast
Residential Energy	35,082	43,673	51,239
Commercial/Industrial Energy	139,026	200,452	270,017
On-Road Transportation	359,029	321,256	357,440
Solid Waste	14,308	17,836	20,659
Water and Wastewater	3,269	4,068	4,712
Total Emissions	550,714	587,286	704,067
2020 Target	—	468,107	—

Source: National City 2011.

To achieve the proposed reductions, the City's CAP includes various measures related to energy conservation, energy-efficient technologies, the use of renewable energy sources, increased reliance on transit, the use of alternative fuels, increased reuse of materials and recycling, and reductions in potable water consumption. The emission reductions achieved with implementation of these various measures is outlined in Table 4.6-8 for 2020 and 2030. As shown, with implementation of the proposed measures, the City is expected to exceed the 2020 target (i.e., 15% below baseline 2005 emissions levels).

Table 4.6-8. National City Community-Wide GHG Emission Reductions in 2020 and 2030 by Sector ($MTCO_2e$ per year)

	Total Reduction ($MTCO_2e$)	
Sector	2020	2030
Energy Use	68,159	73,728
Transportation and Land Use	62,055	75,475
Solid Waste	929	929
Water and Wastewater	5,993	5,993
Total Reduction	137,137	156,127
BAU Emissions	587,286	704,067
Total Emissions with Reductions	450,149	547,940
% Below Baseline (2005)	18.3%	0.5%

Source: National City 2011.

4.6.3.2 Sea-Level Rise and Climate Change

AB 691: AB 691 (Proactively Planning for Sea-Level Rise Impacts) requires the District to prepare and submit to the California State Lands Commission by no later than July 1, 2019, an assessment regarding how the District proposes to address sea-level rise on tidelands. The assessment must include the following:

- An assessment of the impact of sea-level rise on granted public trust lands, as described by certain documents.
- Maps showing the areas that may be affected by sea-level rise in 2030, 2050, and 2100. These maps shall include the potential impacts of 100-year storm events. The District may rely on appropriate maps generated by other entities.
- An estimate of the financial cost of the impact of sea-level rise on District public trust lands. The estimate shall consider, but is not limited to, the potential cost of the repair of damage to and the value of lost use of improvements and land and the anticipated cost to prevent or mitigate potential damage.
- A description of how the District proposes to protect and preserve natural and human-made resources and facilities located on, or proposed to be located on, trust lands and operated in connection with the use of trust lands. The description shall include, but is not limited to, how wetlands restoration and habitat preservation would mitigate the impacts of sea-level rise.
- AB 691 also specifies that "addressing the impacts of sea-level rise for…legislatively granted public trust lands shall be among the management priorities of a local trustee."

The District's sea-level rise vulnerability assessment and coastal resiliency report, prepared in accordance with AB 691, analyzed potential affects from sea-level rise and coastal flooding on the built environment and natural resources. Low-lying built-environment assets, such as boat launches and sewer lifts, are projected to experience inundation by 2030, and assets that provide public access and recreational opportunities will become increasingly affected by inundation and storm surge by 2050. Critical infrastructure, such as roads, railroads, and the stormwater system, could experience temporary coastal flooding during 100-year storm events by 2100. For natural environments, the amount of available area for salt marshes, beaches/dunes, and upland habitats declines as the sea level rises. Significant financial effects are likely to come from the loss of transportation and other infrastructure as well as the loss of ecosystem services (District 2019).

California Coastal Act: The California Coastal Act (CCA) of 1976 (Public Resources Code Sections 30000–30900) established the CCC to oversee future development along California's coastline. Chapter 8, Article 3, of the CCA establishes a framework for ports, including the Port of San Diego, to develop a PMP by which to conduct discretionary project reviews and issue individual coastal development permits within their jurisdictions. Individual PMPs require review and certification by the CCC, including any amendments to the certified PMP. In addition, Chapter 3 of the CCA, Coastal Resources Planning and Management Policies, provides guidance regarding public access to the coast, recreation, the marine environment, land resources, development, and sea-level rise. A consistency review is provided in Section 4.9, *Land Use and Planning*, Table 4.9-2.

The proposed PMPA must be consistent with the CCA, including policies from Chapters 3 and 8, which require protection for certain coastal resources that may be affected by sea-level rise. For example, sea-level rise increases the risk of flooding, coastal erosion, and saltwater intrusion into

freshwater supplies, with the potential to threaten many resources that are integral to the California coast, including habitats (e.g., wetlands, coastal bluffs, dunes, beaches). Also threatened are coastal development, coastal access and recreation, water quality and supply, cultural resources, community character, and scenic quality. There are several CCA sections that are relevant to sea-level rise:

- **30253**: New development shall minimize risks to life and property in areas with high geologic, flood, and fire hazards; (2) ensure stability and structural integrity and neither create nor contribute significantly to erosion, geologic instability, or destruction of a site or surrounding area in any way that would require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs; and, where appropriate, protect special communities and neighborhoods, which, because of their unique characteristics, are popular visitor destination points for recreation.
- **30235**: Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or protect existing structures or public beaches that are in danger from erosion when designed to eliminate or mitigate adverse impacts on the local shoreline sand supply.
- **30236**: Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.
- **30234**: Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded.
- **30210**: In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people, consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.
- **30211**: Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization.
- **30220**: Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

California Coastal Commission Sea-Level Rise Policy Guidance: To guide local governments and ports in addressing sea-level rise in the context of the CCA, the CCC issued Sea-Level Rise Policy Guidance in 2015. The Sea-Level Rise Policy Guidance provides a framework for addressing sea-level rise in PMPs and Coastal Development Permits. The guidance provides principles for addressing sea-level rise in the Coastal Zone; an overview of the science behind sea-level rise, as well as a description of the potential consequences; and an outline of the steps for addressing sea-level rise (CCC 2015). This guidance was updated in 2018 (CCC 2018). Consistency analysis for the CCC sea-level guidance is provided in Section 4.9, *Land Use and Planning*, Table 4.9-2, and the discussion following the table.

4.6.4 Project Impact Analysis

4.6.4.1 Methodology

GHG impacts associated with construction and operation of the proposed project were assessed and quantified using accepted industry-standard software tools, techniques, and emission factors. A summary of the methodology is provided below. A full list of assumptions and emission calculations can be found in Appendix F. The methodology used to estimate the air pollutant emissions discussed below is the same as that used to estimate GHG emissions, as described in Section 4.2, *Air Quality and Health Risk*, with the exception of emissions related to electricity, water, wastewater, and solid waste (see Section 4.2.4.1, *Methodology*).

Construction Emissions

Construction of the proposed project would generate GHG emissions in the form of CO_2, CH_4, and N_2O that that could result in impacts on climate change. Sources of construction emissions include equipment exhaust, such as that from cranes, harbor craft, and barges, as well as exhaust from employees' vehicles and delivery and haul trucks. Emissions were estimated using a combination of emission factors and methodologies published and recommended by CARB and other agencies, including the California Emissions Estimator Model (CalEEMod), version 2016.3.2; CARB's EMFAC2017 model; and CARB's *Harbor Craft Emission Inventory Methodology*. Neither CalEEMod nor EMFAC quantify HFCs from motor vehicles; therefore, these emissions are assessed qualitatively. The analysis includes CARB's criteria pollutant adjustment factors for gasoline-powered light-duty vehicles to account for the SAFE Vehicle Rule (CARB 2019).

Construction data for the proposed project (e.g., schedule, equipment types and numbers, and truck volumes) are based on a combination of information provided by the project proponents, information gathered from similar recent District projects, and modeling defaults. Consistent with industry best practices, construction emissions are summed and amortized over the expected life of the project (assumed to be 30 years) through the 2050 traffic horizon year.

Operational Emissions

Operation of the new uses associated with the proposed project would generate emissions of CO_2, CH_4, and N_2O that could result in impacts on climate change. The proposed uses that would generate GHG emissions are broken out by their respective project component below.

- **Balanced Plan**: Pepper Park, including Granger Hall, which is an optional park feature.
- **GB Capital Component**: Recreational vehicle (RV) resort, modular cabins, dry boat storage, hotels, and marina expansion.
- **Pasha Rail Improvement Component:** No change in operations.
- **Bayshore Bikeway Component:** Paved bikeway.
- **City Program – Development Component:** Hotel, restaurants, retail.

As discussed in Section 4.2, *Air Quality and Health Risk*, operational exhaust-related emissions would result from motor vehicle travel, onsite combustion of natural gas for space and water heating, as well as recreational boating activity associated with new waterside uses, including the 20 additional

boats mooring in Sweetwater Channel, 50 additional boats at the new floating dock, and 25 additional smaller boats at the new dock and gangways. Neither CalEEMod nor EMFAC quantify HFCs from motor vehicles; therefore, the emissions are assessed qualitatively.

In addition to the sources included in Section 4.2, *Air Quality and Health Risk*, the proposed project would include sources that emit only GHGs, including sources associated with electricity and water use as well as the generation of wastewater and solid waste. GHG emissions from electricity, water, wastewater, and solid waste were estimated using a combination of emission estimation methods and emission factors from published best available documentation.

Estimates of emissions from electricity and water consumption were based on default consumption data for the various land uses within CalEEMod and current and projected SDG&E emission rates for each analysis year. The SDG&E emission rate is based on SDG&E reporting for operating year 2017 (0.243 $MTCO_2e$ per megawatt-hour [MWh], based on 44% renewable [SDG&E 2018]) and adjustments for the projected RPS for 2025 (55% renewable) and 2050 (100% carbon free).

Estimates of emissions from wastewater and solid waste generation were based on default consumption data for the various land uses within CalEEMod, the default emission estimation from the project proponent, and CalEEMod's default method for estimating wastewater and solid waste emissions in San Diego County.

A full list of assumptions and emission calculations can be found in Appendix F.

Climate Change

The climate change analysis consists of an assessment of inundation at the project site driven by future sea-level rise. The analysis begins with a review of historic and projected future rates of sea-level rise, based on California sea-level rise guidance and projections for 2030, 2050, and 2100. Historical sea-level rise data were obtained from the National Oceanic and Atmospheric Association's Tides and Currents database for the San Diego tide gauge. For future rates of sea-level rise, this analysis relies on the projections developed by the Ocean Protection Council and adopted by the CCC for San Diego. The sea-level rise projections were mapped to the CoSMoS inundation layers closest to the projected values. The CoSMoS sea-level rise inundation zones were overlaid on the proposed project components to determine potential areas of flooding under average and 100-year storm conditions. Sea-level rise projections for San Diego within the District's time horizons of interest, as well as the associated CoSMoS inundation layers, are provided in Table 4.6-4.

4.6.4.2 Thresholds of Significance

Greenhouse Gas Emissions

Based on guidance provided in Appendix G of the State CEQA Guidelines, the proposed project would result in a significant impact if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.

The State CEQA Guidelines do not indicate what amount of GHG emissions would constitute a significant impact on the environment. Instead, they authorize the lead agency to consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence (State CEQA Guidelines Sections 15064.4[a] and 15064.7[c]). The State CEQA Guidelines provide the lead agency discretion as to whether to quantify GHG emissions resulting from a project and/or rely on a qualitative analysis or performance-based standards, focusing specifically on the following factors (State CEQA Guidelines Sections 15064.4[b]):

- The extent to which the project may increase or reduce GHG emissions compared to the existing environmental setting.
- Whether the project GHG emissions exceed a threshold of significance that the lead agency determines applies to the project.
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The lead agency must include substantial evidence linking statewide goals, strategies, and plans to the project's findings.

Several agencies throughout the state, including multiple air districts, have drafted and/or adopted varying threshold approaches and guidelines for analyzing GHG emissions and climate change in CEQA documents. However, none of these are binding and are only recommendations for consideration by CEQA lead agencies.

Threshold Approach

Overview

There are multiple potential thresholds and methodologies for evaluating project-level GHG emissions consistent with CEQA, depending on the circumstances of a given project. Although efforts at framing GHG significance issues have not yet coalesced into any widely accepted set of numerical significance thresholds across the state and within the region, a range of alternative approaches do exist. Common threshold approaches include (1) compliance with a qualified GHG reduction strategy, (2) performance-based reductions, (3) numeric "bright-line" thresholds, (4) efficiency-based thresholds, and (5) compliance with regulatory programs.

There are two operational analysis years, the opening year of 2025 and the buildout year of 2050, which represents the horizon year provided in SANDAG's regional modeling. The next statewide milestone target after the project opening year of 2025 is the 2030 target adopted in SB 32. The Balanced Plan buildout year (or traffic horizon year) of 2050 coincides with the statewide milestone target in EO S-03-05 for 2050 and is just beyond the statewide goal for carbon neutrality in EO B-55-18 for 2045. The more aggressive 2045 goal of EO B-55-18 indicates the state's intent (and, thus, state of the science) to move toward carbon neutrality. Therefore, the carbon neutrality goal of 2045 is used to evaluate the project's long-term progress toward aligning with statewide GHG reduction targets.

The proposed project includes a variety of project components and a mixture of land uses, including maritime terminal, marine-related industrial, commercial recreation, commercial, recreational boating, parks, streets, bikeways, and manufacturing. Recent case law directs GHG analyses to tailor threshold concepts to the specifics of a project and that project's uses. In this situation, the proposed

project consists of a variety of individual projects with unique land uses. Assigning a single numeric threshold to all uses would be unrealistic because a single numeric threshold does not exist for all project types. For example, although numeric bright-line and efficiency thresholds have been developed or adopted by some lead agencies and air districts for commercial, residential, and/or stationary-source projects, no numerical or efficiency threshold, based solely on District or City land use changes or development projects, exists, and no numeric or efficiency threshold has been formally adopted by the San Diego Air Pollution Control District or other lead agencies for use in analyzing land use development projects in the San Diego region.

Although no numeric or efficiency threshold has been formally adopted for use in the region, numerical targets can be derived from published documentation, such as a CAP. An efficiency most appropriate for development projects includes some form of occupancy by which to benchmark emissions. For example, the District's CAP includes an inventory of baseline and future-year emissions, square footage, number of rooms, and emissions associated with "lodging" uses under baseline (2006) and 2020 conditions. In this case, it would be appropriate to benchmark emissions using the number of rooms for years with available data (in this case, 2006 and 2020) and base the analysis on the level of emissions ($MTCO_2e$) per unit of activity or development (e.g., in this case, the number of hotel rooms). Another example would be the recommended efficiency goals stated in CARB's Scoping Plan of no more than 6 $MTCO_2e$ per capita by 2030 and no more than 2 $MTCO_2e$ per capita by 2050. The benefit of efficiency metrics is that they allow for a quantitative demonstration that a project would be in line with and support the state's overall reduction trajectory toward long-term reduction targets. These efficiency thresholds are applied to activity from land use development components of the proposed project with some sort of occupancy—specifically, the GB Capital Component and City Program – Development Component, which include occupancies (i.e., hotels and RV park) where sources involve traditional end uses and emissions sources, such as motor vehicle trips and energy consumption. Other uses associated with the proposed project, such as the Pasha Rail Improvement Component and the Bayshore Bikeway Component, involve no occupancy and fewer uses that could result in appreciable changes in emissions.

For project types where numeric thresholds have not been established and there is no feasible way to develop efficiency thresholds, the best approach is to rely on regulatory compliance to demonstrate if a project, including any specific uses of a project, complies with or exceeds those programs adopted within a jurisdiction's CAP or by CARB or other California state agencies. A lead agency can rely on regulatory compliance to show less-than-significant GHG impacts if the project complies with or exceeds those programs adopted by CARB or other California state agencies. However, such analysis is applicable only within the area governed by the regulations. For example, consistency with regulations for addressing building efficiency would not suffice when determining whether a project would have significant GHG emissions impacts from transportation.

The California Governor's Office of Planning and Research (OPR) (2018) guidance specifies that "a land use development project that produces low VMT, achieves applicable building energy efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation." To the extent that the GHG policies in the relevant local plans (i.e., those in the District CAP, PMP, City CAP, and City General Plan) comply with and/or exceed regulations from the CARB 2017 Scoping Plan, the project could rely on consistency with the local plans to demonstrate consistency with statewide efforts to reduce GHG emissions. The proposed project's consistency

with regulatory programs, in addition to the quantitative assessment, is used to evaluate the significance of all project components.

The regulatory framework to achieve long-term (post-2030) emissions reductions is still in its infancy; the District and City CAPs include only reduction quantification to meet the 2020 statewide GHG reduction target from AB 32 and do not include reduction quantification to meet the statewide targets established by SB 32. However, myriad measures from the CAPs will be implemented well beyond the 2020 timeframe as well as many programs outlined in the 2017 Scoping Plan that are likely to be carried forward or have already been adopted with post-2030 requirements (e.g., RPS). Although there is no schedule to complete updates to the District or City CAPs, the measures currently in place to reduce emission long-term will serve as a starting point in the eventual development of post-2020 reduction measures. Accordingly, evaluating consistency with these programs and relevant guidance published by OPR and CARB for the reduction of long-term emissions is also considered in the analysis of full-buildout (2050) emissions.

Approach

Based on the available concepts recommended by expert agencies, the threshold approach is both quantitative and qualitative in nature. The quantitative portion of the analysis includes quantification of emissions from all project components and assesses consistency with long-term local and statewide reduction targets. The qualitative portion of the analysis assesses the proposed project's compliance with plans, polices, measures, and regulatory programs outlined, adopted, or proposed by all relevant agencies, including the District, the City, CARB, and other California agencies. These two approaches are discussed in further detail below.

Consistency with the Numerical Thresholds. Project-specific reduction targets were estimated using the emission and development projections for the lodging, retail, and commercial sector within the District's CAP. The efficiency targets are based on the level of reduction and overall efficiency required to meet the 2030 reduction target (SB 32) and post-2030 (EO B-55-18 and EO S-03-05) reduction goals using the emissions and development projections within the District's CAP. Consistency with these numerical efficiency targets is used to determine impacts for the GB Capital Component and City Program – Development Component only, which are the only components that propose lodging, retail, and commercial uses.

Note that the City's CAP does not explicitly include data on growth or emissions specific to lodging uses. However, the City's CAP uses the same methodology as the District's CAP to calculate the appropriate reduction targets pursuant to overall state targets. Therefore, the District's numerical reduction target and associated efficiency metric is used here to assess the City Program – Development Component's compliance with state goals.

The District's CAP includes an inventory of baseline and future-year emissions, square footage, occupied rooms, and lodging emissions for baseline (2006) and 2020 BAU conditions. The CAP also identifies the 2020 GHG reduction target (1990 levels, or 10% below 2006 levels). Lodging information from the CAP for 2006 includes 137,429 $MTCO_2e$, based on 4,793 hotel rooms, which equates to 28.7 $MTCO_2e$ per room. Lodging information from the CAP for 2020 BAU includes 249,852 $MTCO_2e$, based on 8,927 hotel rooms, which equates to 28.0 $MTCO_2e$ per room. Under this approach, the number of hotel rooms through 2050 is assumed to grow at the same annual rate as growth between 2006 and 2020 in the CAP. Pursuant to SB 32 and EO B-55-18, the relevant statewide targets for reductions in GHG emissions are the 2030 reduction target (40% below 1990

levels) and the 2045 carbon neutrality goal. To achieve the fair share toward the 2030 target in opening-year 2025, the District's hotel sector will need to increase efficiency to 9.5 $MTCO_2e$ per room on tidelands. To achieve the fair share toward the 2045 carbon neutrality goal at the full-buildout year 2050, the District's hotel sector will need to increase efficiency to 0.0 $MTCO_2e$ per room in 2050 (i.e., net-zero emissions). Table 4.6-9 summarizes the 2025 and 2050 reduction targets used in the quantitative analysis.

If the project achieves the reduction targets for lodging uses in 2025 and 2050, then impacts from those portions of the project would be considered less than significant. Conversely, if the project is inconsistent with the reduction targets by exceeding the reduction target in either 2025 or 2050, then the project's cumulative contribution to GHG emissions impacts would be considered significant, and feasible mitigation measures would be required.

Table 4.6-9. GHG Reduction Targets and Efficiency Metrics for Lodging Uses (GB Capital Component and City Program – Development Component)

	Projections			Calculated Metrics
Scenario	Square Feet	Occupied Rooms	GHG Emissions ($MTCO_2e$)	(GHG per Hotel Room)
2006 Baseline[1]	5,082,371	4,793	137,429	28.7
2020 BAU[1]	9,382,830	8,927	249,852	28.0
2020 Target[2]	9,382,830	8,927	124,004	13.9
2025 BAU[2]	10,918,708	10,403	290,003	27.9
2025 Target[2]	10,918,708	10,403	99,203	**9.5**
2050 BAU[2]	18,598,099	17,786	490,758	27.8
2050 Target[2]	18,598,099	17,786	0	**0.0**

Analysis targets are in **bold**.
[1] CAP projections for 2006 and 2020 taken from CAP appendices (District 2013).
[2] Projections for 2021, 2030, and 2050 based on extrapolating the growth between 2006 and 2020 for BAU (Appendix F).

Compliance with Qualified GHG Reduction Plans and Statewide Regulatory Programs for All Project Components. The District CAP was adopted in 2013, and the National City CAP was adopted in 2011. Each of these plans includes a variety of potential GHG reduction policies and measures to help meet the GHG reduction goals of 10% less than 2006 levels by 2020 and 25% less than 2006 levels by 2035 for the District and 15% below 2005/2006 baseline emission levels by 2020 for the City. A critical aspect of having a CAP that fits the criteria within State CEQA Guidelines Section 15183.5 is to have reduction targets that align with statewide goals. The District and City CAPs meet the requirements of State CEQA Guidelines Section 15183.5 for 2020 but do not meet the requirements under Section 15183.5 beyond 2020. Construction of the proposed project is anticipated to begin around 2021; therefore, consistency with the measures and goals discussed in the CAPs would be appropriate for analysis of the project's GHG impacts during construction. However, myriad measures from the CAPs will be implemented well beyond the 2020 timeframe as well as many programs outlined in the 2017 Scoping Plan, which are likely to be carried forward or have already been adopted with post-2030 requirements. The District and City CAPs would not be appropriate for analysis of the project's operational GHG impacts because both would expire by the time operations are expected to begin in 2025. However, as discussed above, for purposes of disclosure, post-2020 construction and operational GHG emissions impacts are evaluated through

compliance with the measures within the District and City CAPs. Because the City Program – Development Component, Bayshore Bikeway Component, and a small portion of the GB Capital Component are the only project components proposed within City jurisdiction, only their compliance with the City's CAP is considered. Compliance with the District's CAP is evaluated for all project components. Moreover, at the state level, CARB's 2017 Scoping Plan outlines the framework and strategies the state will take to achieve its emission reduction targets. The 2017 Scoping Plan Update proposes to meet the 2030 goal by accelerating the focus on zero and near-zero technologies for moving freight; continuing to invest in renewables; increasing the use of low-carbon fuels, including electricity and hydrogen; strengthening efforts to reduce emissions of SLCPs; furthering efforts to create walkable communities with expanded mass transit and other alternatives to traveling by car; continuing the cap-and-trade program; and ensuring that natural lands become carbon sinks to provide additional emissions reductions and flexibility in meeting the target (CARB 2017a). In addition to the CARB Scoping Plan, several CARB and other statewide regulations pertain to reductions in GHG emissions from sources that are not fully covered by the Scoping Plan, such as off-road equipment. For construction activities that occur after December 31, 2020, as well as operational activities that are anticipated to begin in 2025, GHG emission impacts are evaluated through compliance with the regulatory programs outlined in the 2017 Scoping Plan and those adopted by CARB or other California agencies for the purpose of reducing GHG emissions.

If the project is compliant with the District and City CAPs, implements regulatory programs adopted by CARB or other state agencies to reduce GHG emissions, and displays a downward trajectory for emissions that is in line with the evolving state of the science and California GHG reduction targets, then the project's cumulative contribution to emissions impacts would be considered less than significant. Conversely, if the project is not compliant with the District and City CAPs, does not implement one or more regulatory programs adopted by CARB or other state agencies to reduce GHG emissions, or does not display a downward trajectory for emissions that is in line with the evolving state of the science and California GHG reduction targets, then the project's cumulative contribution to GHG emissions impacts would be considered significant, and feasible mitigation measures would be required.

Climate Change

Recent court cases have concluded that an EIR need not evaluate the environment's effect on a project, a conclusion that has been referred to as "reverse CEQA."[3] In one case regarding sea-level rise, the California Second District Court of Appeal held that, although an EIR must analyze environmental effects that may result from a project, an EIR is not required to examine the effects of the environment, such as sea-level rise, on a project (see *Ballona Wetlands Land Trust v. City of Los Angeles*, 201 Cal. App. 4th 455 [2011]). In its decision, the court called into question the validity of portions of the State CEQA Guidelines that require consideration of impacts of the environment on a project. The Ballona decision potentially eliminates the need for lead agencies to consider the impacts of climate change on proposed projects. The Ballona decision did not, however, call into question the State CEQA Guidelines amendments enacted in 2010 that establish how GHG emissions are to be analyzed and mitigated under CEQA.

[3] See *South Orange County Wastewater Authority v. City of Dana Point* (2011) 196 Cal.App.4th 1604; *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455; *Baird v. County of Contra Costa* (1995) 32 Cal.App.4th 1464, 1468 (Baird); *City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889 (Long Beach).

Although the California Supreme Court denied review of the Ballona decision,[4] the issue of the environment's effect on a project was raised once again in *California Building Industry Association v. Bay Area Quality Management District*, 62 Cal. 4th 369 (2015). The Supreme Court ruled that:

> [Lead] agencies . . . generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment—and not the environment's impact on the project—that compels an evaluation of how future residents or users could be affected by exacerbated conditions.

In making its ruling, the Supreme Court did not address sea-level rise directly or in the context of compliance with the CCA. In addition, the Supreme Court stated that:

> The conclusion that we reach today is not inconsistent with these cases, all of which implicitly held that CEQA does not generally require an agency to analyze how existing hazards or conditions might impact a project's users or residents. Further, these Courts of Appeal did not have occasion to consider—and therefore did not rule out—the exceptions to the general rule that we elucidate here.[5]

As such, CEQA does not direct agencies to analyze the environment's effects on a project but does require an analysis where a project could exacerbate environmental hazards or conditions. The analysis provided in this section focuses on the project's potential to exacerbate existing and projected future conditions associated with climate change and addresses the following question:

- Would the project exacerbate any existing and/or projected damage to the environment, including existing structures and sensitive resources, due to predicted climate change effects, particularly sea-level rise?

Although it is uncertain whether an analysis of the impacts of sea-level rise on the project are required under *California Building Industry Association v. Bay Area Quality Management District*, the project would produce GHG emissions, which, on a cumulative level, contribute to climate change and hence sea-level rise, flooding, and storm surges. Moreover, the project site is within the Coastal Zone, and several CCA policies require protection of coastal resources from sea-level rise and the impacts of climate change. EO S-13-08 also requires the consideration of the potential impacts of sea-level rise on a proposed project in determining consistency with the CCA and the 2018 adopted Sea-Level Rise Policy Guidance. The policy guidance provides an overview of the best available science on sea-level rise and a recommended methodology for addressing sea-level rise in CCC planning and regulatory actions (CCC 2018).

[4] On March 21, 2012, the California Supreme Court denied case review and depublication requests submitted by the Natural Resources Defense Council.

[5] Certain specific statutory categories governing school, airport, and certain housing projects under Sections 21151.8, 21096, 21159.21, 21159.22, 21159.23, 21159.24, and 21155.1 represent specific exceptions to CEQA's general rule requiring consideration of only a project's effect on the environment, not the environment's effect on project users. However, none of these sections apply here because the proposed project involves hotels, commercial uses, and a marina expansion.

4.6.4.3 Project Impacts and Mitigation Measures

Threshold 1: The proposed project would not be consistent with District- and City-specific targets, including the 2025 goal of 9.0 $MTCO_2e$ per room and the 2050 carbon-neutral goal.

Impact Discussion

Construction and operation of the proposed project have the potential to create significant impacts associated with the emission of GHGs. A discussion of project-related impacts is presented below.

Construction

Construction of the various project elements would involve the use of landside off-road equipment, employee vehicles, and trucks to remove existing and construct new uses. Moreover, new waterside uses would require water-based equipment, such as tugboats, push boats, skiffs, and barges.

Construction of all proposed project components was assumed to begin in 2020 and be completed in 2025. Construction emissions were calculated using the methods discussed above in Section 4.6.4.1, *Methodology*. A summary of emissions from construction of all project components is provided in Table 4.6-10. As described above, total construction emissions would be amortized over a 30-year duration and added to operational emissions. As noted, the GB Capital Component would be responsible for the majority of GHG emissions during project construction, followed by development associated with the Balanced Plan and the City Program – Development Component.

Construction emissions on their own would be relatively small compared to statewide or Port-related emissions. Given the cumulative nature of GHG emission and climate change, the effects of construction-related GHG emissions are not analyzed in isolation but are, instead, combined with the effects of long-term operations.

Note that the analysis is based on a construction schedule that was to begin in 2020 and last through 2025. Because construction of the various components would occur after the date assumed herein, emission levels are likely to be lower than those presented in the analysis below because emissions on a per unit basis (e.g., per horsepower hour, per vehicle mile traveled) decrease over time, particularly as regulations reduce emissions and fuel economy improves.

Table 4.6-10. Construction GHG Emissions by Project Component Prior to Implementation of Mitigation Measures (metric tons)

Project Component	Construction Total	Amortized over a 30-Year Project Life
Balanced Plan	779	26
GB Capital Component	2,926	98
Pasha Rail Improvement Component and Pasha Road Closures Component	169	6
Bayshore Bikeway Component	52	2
City Program – Development	519	17
Total Emissions	4,446	148

Source: Appendix F.
Note: Totals may not add up exactly because of rounding.

Operations

Operation of the proposed project would result in GHG emissions associated with both landside and waterside components. The landside components would result in GHG emissions associated with the increase in vehicle trips, electricity and natural gas consumption, water consumption, and wastewater and solid waste generation. The waterside components would result in GHG emissions related to additional recreational boating activity associated with the added space for up to 95 additional boats.

An estimate of annual emissions associated with project operations prior to mitigation by project component, emission source, and in total is presented in Table 4.6-11 for 2025 and 2050. The results include emission benefits achieved by statewide legislation designed to reduce GHG emissions (e.g., Pavley, RPS) as of both 2025 and 2050. As shown in the table, the majority of GHG emissions during operations would be from the GB Capital Component and City Program – Development Component. The primary sources of these emissions include mobile and energy sources related to lodging (hotel, modular cabins, and RV park) as well as restaurant uses. Because lodging-related uses would account for most GHG emissions, use of the numerical efficiency target for lodging is an appropriate approach for GHG significance analysis. As discussed, emissions associated with the GB Capital Component and City Program – Development Component are analyzed against the numerical targets for the opening year (2025) and full-buildout year (2050), consistent with the traffic horizon year, as described in Section 4.6.4.2, *Thresholds of Significance*. Emissions associated with the Balanced Plan, Pasha Rail Improvement Component, Pasha Road Closures Component, and Bayshore Bikeway Component are discussed qualitatively.

A summary of operational emissions, as compared against numerical targets, is presented in Table 4.6-12. As shown, both the GB Capital Component and City Program – Development Component would exceed the numerical efficiency targets for 2025 and 2050. Mitigation measures would be required to reduce emissions to a level that would be in line with the targets (**Impact-GHG-1**).

Table 4.6-11. Operational GHG Emissions by Project Component, by Source, and in Total Prior to Implementation of Mitigation Measures ($MTCO_2e$ per year)

Emission Source	Balanced Plan	GB Capital Component	Pasha Rail Improvement Component and Pasha Road Closures Component	Bayshore Bikeway Component	City Program-Development	Total by Emission Source
2025						
Area	< 1	107	—	< 1	< 1	107
Energy	128	4,758	—	6	1,531	6,423
Motor Vehicles	869	4,107	—	—	2,990	7,966
Boating	—	256	—	—	—	256
Solid Waste	3	200	—	—	140	343
Water and Wastewater	15	138	—	—	39	192

Emission Source	Balanced Plan	GB Capital Component	Pasha Rail Improvement Component and Pasha Road Closures Component	Bayshore Bikeway Component	City Program-Development	Total by Emission Source
Amortized Construction	*26*	*97*	*6*	*2*	*17*	*148*
Total by Component	1,041	9,663	6	8	4,718	15,435
2050						
Area	< 1	107	—	< 1	< 1	107
Energy	63	2,585	—	—	829	3,477
Motor Vehicles	741	3,502	—	—	2,549	6,792
Boating	—	258	—	—	—	258
Solid Waste	3	200	—	—	140	343
Water and Wastewater	3	43	—	—	13	59
Amortized Construction	*26*	*98*	*6*	*2*	*17*	*148*
Total by Component	836	6,792	6	2	3,549	11,184

Source: Appendix F.
Note: Emissions may not add up exactly because of rounding. Dash ("—") indicates no emissions from that source for that component.

Table 4.6-12. Operational GHG Emissions Relative to Numerical Targets Prior to Mitigation

Metric	GB Capital Component	City Program – Development Component
2025		
Annual GHG Emissions (metric tons)[1]	9,663	4,718
Service Population (rooms)[2]	593	150
Project Efficiency (metric tons per room)	16.3	31.5
Numerical Target (metric tons per room)	*9.5*	*9.5*[3]
Exceed Target?	**Yes**	**Yes**
2050		
Annual GHG Emissions (metric tons)[1]	6,792	3,549
Service Population (rooms)[2]	593	150
Project Efficiency (metric tons per room)	11.5	23.7
Numerical Target (metric tons per room)	*0.0*	*0.0*
Exceed Target?	**Yes**	**Yes**

Source: Appendix F.
[1] Annual GHG emissions by source are shown in Table 4.6-11.
[2] The 593 rooms for the GB Capital Component is the sum of 463 hotel rooms, 70 RV spaces, and 60 modular cabins. The 150 rooms for the City Program – Development Component is based on 150 hotel rooms only.

[3] As stated above, please note that the City's CAP does not explicitly include data on growth or emissions specific to lodging uses. However, the City's CAP uses the same methodology as the District's CAP to calculate the appropriate reduction targets pursuant to overall state targets. Therefore, the District's numerical reduction target and associated efficiency metric is used here to assess the City Program – Development Component's compliance with state goals.

Level of Significance Prior to Mitigation

Prior to implementation of mitigation measures, the proposed project would not be consistent with the District CAP, specifically the numerical efficiency target specified therein. Potentially significant impact(s) include:

Impact-GHG-1: Inconsistency with District and City Climate Action Plan Numerical Targets (All Project Components). Project construction and operations would not meet numerical efficiency targets in 2025 or 2050. Therefore, prior to the application of any mitigation, the impact related to consistency with relevant plans, policies, and programs would be significant.

Mitigation Measures

For **Impact-GHG-1**:

MM-GHG-1: Implement Diesel Emission-Reduction Measures During Project Construction and Operation (All Project Components). The project proponent/operator and/or its contractor(s) for each component of the proposed project shall implement the following measures during project construction and operation and, where specified below, submit reports demonstrating compliance for review and approval to the District's Development Services Department for project components in the District's jurisdiction or the City's Community Development Department for project components in the City's jurisdiction.

1. Construction: The project proponent shall verify that all construction equipment is maintained and properly tuned, in accordance with manufacturers' specifications. Prior to the commencement of construction activities using diesel-powered vehicles or equipment, the project proponent shall verify that all vehicles, as well as equipment, have been checked by a certified mechanic and determined to be running in proper condition prior to admittance into the delivery driveway and loading areas. The project proponent shall submit a report prepared by the certified mechanic regarding the condition of construction vehicles and equipment to the District's Development Services Department or the City's Community Development Department prior to commencement of their use.
2. Operation: The project proponent shall limit all delivery truck idling times by shutting down trucks when not in use and reducing the maximum idling time to less than 3 minutes. The project proponent shall install clear signage regarding the limitation on idling time at the delivery driveway and loading areas and shall submit annual reports of violators to the District. This measure shall be implemented by the hotel and marina supervisors. Repeat violators shall be subject to penalties pursuant to the California Airborne Toxics Control Measure, 13 CCR Section 2485.

MM-GHG-2: Comply with District CAP Measures (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Bayshore Bikeway Component [Only Area within District Jurisdiction]). Prior to approval of the final design plans, the project proponent/operator and/or its contractor(s) for each component of the proposed project shall list all applicable GHG-reducing measures from the District CAP and demonstrate in the plans

where the measures shall be located. A report demonstrating compliance shall be submitted to the District's Development Services Department. Buildings associated with the proposed project components shall achieve certification under the Leadership in Energy and Environmental Design (LEED) program, or the Green Building Rating Systems of the Green Building Certification Institute, or achieve equivalent efficiency if it is determined that LEED certification cannot be achieved because of site factors or other reasons. For construction where LEED or an equivalent program or efficiency certification is not applicable (e.g., dry boat storage), all other applicable measures below shall be required, subject to verification of the District's Development Services Department.

The following is a list of the proposed sustainability measures that would be consistent with the District CAP. The measures shall be required and incorporated into the Coastal Development Permit for each project component.

- General Measures
  - No commercial drive-through shall be implemented.
- Water
  - Indoor water consumption shall be reduced to a level 20% lower than that of the baseline buildings (defined by LEED as indoor water use after meeting Energy Policy Act of 1992 fixture performance requirements) through use of low-flow fixtures in all administrative and common-area bathrooms.
  - Plantings with low water requirements and drip irrigation shall be installed, and domestic water demand from the City system for landscaping purposes shall be minimized.
- Waste
  - Compliance with AB 939 shall be mandatory and shall include recycling at least 50% of solid waste; recycling of demolition debris shall be mandatory and shall include recycling at least 65% of all construction and demolition debris. This measure shall be applied during construction and operation of the proposed project.
  - All commercial, restaurant, and retail uses shall recycle, compost food waste and other organics, and use reusable products instead of disposable products to divert solid waste from the landfill stream.
  - Recycled, regional, and rapidly renewable materials shall be used where appropriate during project construction.
- Energy
  - Energy-efficiency design features that exceed 2019 Title 24 California Building Energy Efficiency Standards shall be incorporated. The measures that may be implemented are as follows:
    - Use only fluorescent lights, light-emitting diodes (LEDs), compact fluorescent lights, or the most energy-efficient lighting that meets required lighting standards and is commercially available. This measure also requires replacement of existing lighting on the project site if not already highly energy efficient.

- Install occupancy sensors for all vending machines in new buildings at the project site.
- Implement onsite renewable energy to new buildings, unless the system cannot be built because of structural and operational constraints. (Evidence must be provided if not feasible, subject to District concurrence.)
- Install co-generation systems (i.e., combined heat and power systems) in new buildings constructed at the project site.
- Install high-performance glazing with a low solar heat-gain coefficient value that reduces the amount of solar heat allowed into the building, without compromising natural illumination.
- Install additional insulation.
- Install cool roofs with an R value of 30 or better.
- Install sun shading devices as appropriate.
- Install high-efficiency heating, ventilating, and air-conditioning systems and controls.
- Install programmable thermostats.
- Install variable frequency drives.
- Install Energy Star–rated appliances.
- Install shore power capabilities where suitable upgrades are feasible in marinas.

- Mobile Sources
  - Ensure that, at a minimum, 6% of parking spaces are equipped with electric-vehicle charging stations.
  - Implement a construction transportation demand management plan for each project component that promotes ride-sharing, vanpooling, alternate work schedules, and offsite parking with shuttles and provides subsidies for transit passes to reduce worker trips and parking demand, as described in **MM-TRA-2**.
  - Implement an operational transportation demand management plan for each project component that requires mandatory employer commuting measures, such as carpooling, transit subsidies, and vanpools, to reduce worker trips and parking demand, as described in **MM-TRA-2**.
  - Ensure that bicycle parking is included in the project design. The number of spaces shall be, at a minimum, 5% of the new automobile parking spaces.
- Carbon Sequestration and Land Use
  - Install trees and shrub planters throughout the project area as part of the landscape plan.

MM-GHG-3: Comply with the Applicable City CAP Measures (City Program – Development Component). Prior to approval of the final design plans, the project proponent/operator and/or its contractor(s) for the City Program – Development Component shall list all GHG-reducing

measures from the City's CAP and demonstrate in the plans where these measures shall be located. A report demonstrating compliance shall be submitted to the City's Community Development Department. Buildings associated with the proposed project component shall achieve certification under the LEED program, or the Green Building Rating Systems of the Green Building Certification Institute, or achieve equivalent efficiency if it is determined that LEED certification cannot be achieved because of site factors or other reasons.

The following is a list of proposed sustainability measures from the City CAP that shall be required and incorporated into the Coastal Development Permit for the City Program – Development Component:

- Incorporate energy-efficiency design features that exceed 2019 Title 24 California Building Energy Efficiency Standards.
- Prioritize parking for high-occupancy vehicles as well as carpooling, vanpooling, and transit vehicles.
- Ensure that at a minimum 6% of parking spaces are equipped with electric-vehicle charging stations.
- Ensure that bicycle parking is included in the project design. The number of spaces shall be, at a minimum, 5% of the new automobile parking spaces.
- Encourage telework programs and alternative work schedules for new businesses.
- Provide financial incentives for commuters to reduce the number of vehicle trips by walking, bicycling, using public transit, and carpooling.
- Implement programs to reduce, reuse, and recycle construction and demolition waste.
- Encourage rooftop gardens for flat-roofed commercial buildings.
- Pursue a pump-efficiency cycling schedule.
- Adopt water efficiency principles similar to the Ahwahnee Water Principles for Resource Efficient Land Use (available at https://www.lgc.org/wordpress/docs/ahwahnee/ahwahnee_water_principles.pdf), such as the following:
    - Use compact, mixed-use, walkable, and transit-oriented community designs;
    - Preserve and restore natural resources such as wetlands, floodplains, recharge zones, riparian areas, open spaces, and native habitats;
    - Utilize water holding areas such as creek beds, recessed athletic fields, ponds, cisterns, and other features that serve to recharge groundwater, reduce runoff, improve water quality, and decrease flooding;
    - Use low-water plantings in landscaping;
    - Use permeable surfaces for hardscapes;
    - Install dual plumbing that allows reuse of gray water;
    - Maximize use of recycled water in the project design;
    - Use low-flow toilets, efficient clothes washers, and efficient water-using industrial equipment in new construction; and

  - Maximize the use of drought-proof water supplies, such as groundwater treatment and brackish water desalination.

- Install trees and shrub planters throughout the project area as part of the landscape plan.

MM-GHG-4: Use Modern Harbor Craft for Waterside Construction Activities (GB Capital Component and Balanced Plan). Prior to commencing any waterside construction or activities, including the relocation of Granger Hall, the project proponent/operator and/or its contractor(s) for the Balanced Plan and the GB Capital Component shall ensure that any harbor craft, including, but not limited to, tugboats, pusher tugs, tow boats, work boats, crew boats, and supply boats for use during the duration of any in-water work, shall meet the following criteria:

- For all construction between 2020 and 2025, ensure all equipment is Tier 3 or better (cleaner);
- For all construction after 2025, ensure all equipment is alternatively fueled or electrically powered. If alternatively fueled or electrically powered equipment that emits fewer emissions than Tier 4 or better (cleaner) equipment is not available, then the project proponent shall ensure all equipment is Tier 4 or better; and
- Use renewable diesel fuel in all heavy-duty, off-road diesel-fueled equipment. Renewable diesel must meet the most recent ASTM D975 specification for ultra-low-sulfur diesel and have a carbon intensity no greater than 50% of diesel with the lowest carbon intensity among petroleum diesel fuels sold in California.

If clean harbor craft are not available within 200 miles of the project site for the duration of all dredging activities, the project proponent/operator and/or its contractor(s) for the Balanced Plan and the GB Capital Component shall prioritize the use of equipment that is maintained and properly tuned in accordance with manufacturers' specifications. The project proponent/operator and/or its contractor(s) for each Balanced Plan and the GB Capital Component shall document and submit evidence to the District's Development Services Department or the City's Community Development Department, depending upon the jurisdiction that the project component is located in, prior to commencement of waterside construction activities. Regardless of the equipment used, the project proponent/operator and/or its contractor(s) for each project component with waterside construction activities shall verify that all equipment has been checked by a mechanic experienced with such equipment and determined to be running in proper condition prior to admittance into the construction area. The project proponent/operator and/or its contractor(s) for each project component with waterside construction activities shall submit a report prepared by the mechanic experienced with such equipment regarding the condition of the vehicles and equipment for construction and operations to the District's Development Services Department or the City's Community Development Department, depending upon the jurisdiction that the project component is located in, prior to commencement of their use.

MM-GHG-5: Implement Electric Heating and Zero-Net-Energy Buildings (GB Capital Component, Balanced Plan, City Program – Development Component). The City and the District shall require all development to meet the state's ZNE standards, if and when adopted as part of the California Building Code. In addition, the City and the District shall encourage project developers to construct buildings that are ZNE. Prior to issuance of any Coastal Development Permit or City-issued permit, as applicable, the project proponents/operators and/or its contractor(s) shall submit a feasibility analysis, prepared by a qualified consultant, regarding

the construction of buildings as ZNE, and the project component shall implement all feasible measures identified in the feasibility analysis. This report will be subject to verification by the District for the GB Capital Component (all phases) and Balanced Plan and subject to verification by the District for the City Program – Development Component.

MM-GHG-6: Implement a Renewable Energy Project Onsite, or Other Verifiable Actions or Activities on Tidelands or Within Another Adjacent Member City, or Purchase the Equivalent GHG Offsets from a CARB–Approved Registry or a Locally Approved Equivalent Program (GB Capital Component and Balanced Plan).

A. Options for Reducing GHG Emissions.

To reach the numerical efficiency metric, each project proponent shall, in order of preference, considering availability of structures and feasibility, implement the following, which may be combined with consideration to the preference described below:

1. Incorporate renewable energy
    a) On the project site,
    b) Within the District's jurisdiction, or
    c) Within the adjacent community or member city outside of the District's jurisdiction.
2. Undertake other verifiable actions or activities on tidelands approved by the District, such as electrification of equipment, including vehicles and trucks; financial contribution to a future local or GHG emission reduction program on tidelands; or similar activities or actions that reduce operational GHG emissions;
3. Purchase GHG emission offset credits that (1) are real, additional, permanent, quantifiable, verifiable, and enforceable, as specified in California Health and Safety Code Section 38562(d)(1) and (2) and further defined in CCR Title 17, Section 95802 (see below); (2) use a protocol consistent with or as stringent as CARB protocol requirements under CCR Title 17, Section 95972(a); and (3) are issued by an CARB-approved offset registry.[6] For offset credits from projects outside California, the project proponent must demonstrate in writing to the satisfaction of the District that the offset project meets requirements equivalent to or stricter than California's laws and regulations, ensuring the validity of offset credits.

For purposes of this section, the definitions are as follows:

a) "Real" means, in the context of offset projects, that GHG reductions or GHG enhancements result from a demonstrable action or set of actions and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the offset project boundary and account for uncertainty and the potential for activity-shifting leakage and market-shifting leakage. [17 CCR 95802]

b) "Additional" means, in the context of offset credits, GHG emission reductions or removals that exceed any GHG reduction or removals otherwise required by law, regulation, or legally

[6] Currently approved offset registries include the American Carbon Registry (ACR), Climate Action Reserve (CAR), and Verra (formerly the Verified Carbon Standard). See: https://ww3.arb.ca.gov/cc/capandtrade/offsets/registries/registries.htm.

binding mandate, and that exceed any GHG reductions or removals that would otherwise occur in a conservative BAU scenario. [17 CCR 95802]

c) "Permanent" means, in the context of offset credits, either that GHG reductions and GHG removal enhancements are not reversible, or when GHG reductions and GHG removal enhancements may be reversible, that mechanisms are in place to replace any reversed GHG emission reductions and GHG removal enhancements to ensure that all credited reductions endure for at least 100 years. [17 CCR 95802]

d) "Quantifiable" means, in the context of offset credits, the ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the offset project boundary while accounting for uncertainty and activity-shifting leakage and market-shifting leakage. [17 CCR 95802]

e) "Verifiable" means that a non-California offset project is located in a state that has laws and regulations equivalent to or stricter as California's with respect to ensuring the validity of offsets and an Offset Project Data Report assertion is well documented and transparent such that it lends itself to an objective review by an accredited verification body. [17 CCR 95802]

f) "Enforceable" means the authority for the offset purchaser to hold the offset provider liable and to take appropriate action if any of the above requirements are not met. [Adapted from definition in 17 CCR 95802 for use in this measure.] "Enforceable" also means that the offset must be backed by a legal instrument or contract that defines exclusive ownership and the legal instrument can be enforced within the legal system of the State of California.

B. Required Annual GHG Emissions Reductions:

The option(s) implemented pursuant to paragraph A above shall achieve the following required GHG reductions for the activities of the proposed project, assuming full buildout of each project component:

- Balanced Plan (only Pepper Park Expansion) = 836 $MTCO_2e$ per year or 4,317 MWh/year.
- GB Capital Component = 6,627 $MTCO_2e$ per year or 34,219 MWh/year.

The required reductions may be reduced by the District, based on the actual amount of development and activities associated with that development and the other adjustment provisions specified below.

C. Implementation of GHG Emissions Reduction Options.

Prior to becoming operational and annually thereafter, the District shall notify the project proponent of the option(s) available for achieving its respective annual maximum GHG required emissions reduction, as identified in paragraph B above, in the order of priority specified above, and the project proponent(s) shall:

1. Develop a renewable energy project(s) or take other verifiable actions or activities identified by the District to meet or partially meet the required amount of $MTCO_2e$ or MWh reductions specified above.

    a) If the project proponent develops a renewable energy project(s), or takes other verifiable actions or activities to reduce GHG emissions, the project proponent shall submit to the District's Energy Department/Team, for its review and approval, a report

specifying the annual amount of $MTCO_2e$ or MWh reduction achieved by the renewable energy project(s), or actions, or activities; submit evidence that the renewable energy project(s), actions, or activities are not being used to offset GHG emissions for any other project or entity; and submit any other information requested by the District's Energy Department/Team to verify the amount of GHG emissions reduction achieved by the renewable energy project, or actions or activities (collectively, "GHG Emission Reduction Report").

b) If the GHG Emission Reduction Report is approved by the District, a reduction to the required offsets shall be calculated by the District's Energy Department/Team, and the reduction of offsets shall be transmitted to the project proponent in writing and the amount of GHG reduction shall count toward the required GHG reduction for the proposed project component ("GHG Reduction").

2. Purchase GHG emission offsets in conformance with paragraph A(3) above in an amount sufficient to achieve the required reduction of $MTCO_2e$ or MWh specified above, which may be decreased by the amount of annual $MTCO_2e$ or MWh reduction that is achieved by any renewable energy project(s) or other verifiable action or activities if developed and/or implemented pursuant to paragraph (1) above. The purchase of offsets to achieve the required reduction in $MTCO_2e$ or MWh shall occur as follows:

   a) Each project component shall purchase offsets for its first 2 years of operation;

   b) Purchase offsets at least annually thereafter, prior to becoming operational, beginning with the third year of operation, for the life of the proposed project component's operations or until the termination of a lease agreement (for GB Capital Component only) between the District and the project proponent. The project proponent may purchase more than 1 year of operation emissions offsets, consistent with the amount of $MTCO_2e$ or MWh reduction specified above for the corresponding project component.

   c) On or before the first year of operation of the respective project proponent and annually thereafter, the project proponent shall submit certificates for offsets purchased to achieve the required GHG emission reductions, including written verification by a qualified consultant approved by the District that the offsets meet the requirements for GHG emission offset credits set forth in paragraph A(3) above, to the District's Energy Department/Team.

D. Adjustments to Required GHG Emissions Reductions.

If the project proponent complies with paragraphs A(1) or A(2) above, in an amount that meets the total amount of $MTCO_2e$ or MWh reductions specified above, or complies with paragraph A(3) above and purchases the requisite offsets, or does a combination of paragraphs A(1), (2), and (3) to meet the reduction target, then nothing further shall be required under this mitigation measure.

1. Reduction of Emissions through Development of a Renewable Energy Project Requirement: Although none are identified at this time, the project proponent may be required by the District to develop a renewable energy project at any time during the life of the project (subject to future approvals and the priorities listed above) and may request a reduction of required offsets. If any reduction in offsets is requested by the project proponent because of the development of a renewable energy project(s), the project proponent shall submit a GHG

Emission Reduction Report for the District Energy Department's/Team's review, pursuant to the process specified above in paragraph C(1) above, and required offsets shall be determined by the District and reduced.

2. Reduction of Emissions through Verifiable Actions or Activities on Tidelands Requirement: Although none are identified at this time, the project proponent may be required by the District to take other verifiable actions or activities at any time during the life of the project (subject to future approvals and the priorities listed above) and may request a reduction of required offsets. If any reduction in offsets is requested by the project proponent because of the other verifiable actions or activities on tidelands, the project proponent shall submit a GHG Emission Reduction Report for the District Energy Department's/Team's review pursuant to the process specified above in paragraph C(1), and required offsets shall be determined by the District and reduced.
3. Reduction of Emissions through Purchase of Offsets: Subsequent to purchasing GHG emission offsets pursuant to paragraph C(2) above, the project proponent's future annual purchase of offsets to achieve the GHG emissions reduction specific in paragraph B above may be adjusted if the development is less than assumed here, which is the following:
    - Balanced Plan includes a 2.54-acre park.
    - GB Capital Component landside features, including 134 RV sites; 40,000 square feet of dry boat storage; 60 modular cabins; 10,000-square-foot administration/recreation building; 10,000-square-foot building with restrooms, laundry facilities, and staff support services in the vicinity of the existing marina buildings; and a 4,000-square-foot maintenance building and associated approximately 8,200-square-foot maintenance yard northeast of the proposed dry boat storage. Waterside uses include 20 moorings in Sweetwater Channel; 620-foot-long and 8-foot-wide floating dock that includes up to 30 fingers, which accommodate up to 50 boats; and a 580-foot-long and 8-foot-wide dock with two 80-foot-long and 5-foot-wide gangways within the existing marina basin north of the jetty to accommodate up to 25 smaller boats.
4. The District or a District-retained consultant (at the project proponent cost) shall calculate, using the best available science, the amount of unused GHG reduction offsets, based on the actual development constructed and in operation. Any unused offsets shall be used for the next year of operation of the project component, and the project proponent shall purchase offsets in the necessary amounts (required amount less any unused offsets) for the subject year. This procedure shall be repeated on an annual basis. In the event that newly discovered information shows that an offset, previously certified as compliant pursuant to paragraph C(3)(c), does not comply with the requirements of paragraph A(3), the project proponent shall purchase an equivalent amount of replacement offsets that comply with the requirements of paragraph A(3) within 30 days of receiving notice of the noncompliance. After verification of unused and available offsets, unused offsets may replace previously compliant offsets should those offsets subsequently be determined noncompliant with paragraph A(3). At the project proponent's written request to the District, the project proponent may waive the annual adjustment described above and purchase the required $MTCO_2e$ or MWh offsets on at least an annual basis.

MM-GHG-7: Implement a Renewable Energy Project On Site, or Other Verifiable Actions or Activities Within National City or Within an Adjacent Community, or Purchase the Equivalent GHG Offsets from a CARB–Approved Registry or a Locally Approved Equivalent Program (City Program – Development Component).

A. Options for Reducing GHG Emissions.

To reach the numerical efficiency metric, each project proponent shall, in order of preference, considering availability of structures and feasibility, implement the following, which may be combined with consideration to the preference described below:

1. Incorporate renewable energy
    a) On the project site,
    b) Within the City's jurisdiction, or
    c) Within the adjacent community or the city.
2. Undertake other verifiable actions or activities approved by the City, such as electrification of equipment, including vehicles and trucks; financial contribution to a future local or GHG emission reduction program within the city; or similar activities or actions that reduce operational GHG emissions;
3. Purchase GHG emission offset credits that (1) are real, additional, permanent, quantifiable, verifiable, and enforceable, as specified in California Health and Safety Code Section 38562(d)(1) and (2) and further defined in California CCR Title 17, Section 95802 (see below); (2) use a protocol consistent with or as stringent as CARB protocol requirements under CCR Title 17, Section 95972(a); and (3) are issued by an CARB-approved offset registry.[7] For offset credits from projects outside California, the project proponent must demonstrate in writing to the satisfaction of the City that the offset project meets requirements equivalent to or stricter than California's laws and regulations, ensuring the validity of offset credits.

For purposes of this section, the definitions are as follows:

a) "Real" means, in the context of offset projects, that GHG reductions or GHG enhancements result from a demonstrable action or set of actions and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the offset project boundary and account for uncertainty and the potential for activity-shifting leakage and market-shifting leakage. [17 CCR 95802]

b) "Additional" means, in the context of offset credits, GHG emission reductions or removals that exceed any GHG reduction or removals otherwise required by law, regulation, or legally binding mandate and that exceed any GHG reductions or removals that would otherwise occur in a conservative BAU scenario. [17 CCR 95802]

c) "Permanent" means, in the context of offset credits, either that GHG reductions and GHG removal enhancements are not reversible, or when GHG reductions and GHG removal enhancements may be reversible, that mechanisms are in place to replace any reversed

[7] Ibid.

GHG emission reductions and GHG removal enhancements to ensure that all credited reductions endure for at least 100 years. [17 CCR 95802]

d) "Quantifiable" means, in the context of offset credits, the ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the offset project boundary while accounting for uncertainty and activity-shifting leakage and market-shifting leakage. [17 CCR 95802]

e) "Verifiable" means that a non-California offset project is located in a state that has laws and regulations equivalent to or stricter as California's with respect to ensuring the validity of offsets and an Offset Project Data Report assertion is well documented and transparent such that it lends itself to an objective review by an accredited verification body. [17 CCR 95802]

f) "Enforceable" means the authority for the offset purchaser to hold the offset provider liable and to take appropriate action if any of the above requirements are not met. [Adapted from definition in 17 CCR 95802 for use in this measure.] "Enforceable" also means that the offset must be backed by a legal instrument or contract that defines exclusive ownership and the legal instrument can be enforced within the legal system of the State of California.

B. Required Annual GHG Emissions Reductions:

The option(s) implemented pursuant to paragraph A above shall achieve the following required GHG reductions for the activities of the proposed project, assuming full buildout of each project component:

- City Program = 3,549 $MTCO_2e$ per year or 18,323 MWh/year.

The required reductions may be reduced by the City, based on the actual amount of development and activities associated with that development and the other adjustment provisions specified below.

C. Implementation of GHG Emissions Reduction Options.

Prior to becoming operational and annually thereafter, the City shall notify the project proponent of the option(s) available for achieving its respective annual maximum GHG required emissions reduction, as identified in paragraph B above, in the order of priority specified above, and the project proponent(s) shall:

1. Develop a renewable energy project(s) or take other verifiable actions or activities identified by the City to meet or partially meet the required amount of $MTCO_2e$ or MWh reductions specified above.

   a) If the project proponent develops a renewable energy project(s), or takes other verifiable actions or activities to reduce GHG emissions, the project proponent shall submit to the City's Community Development Department, for its review and approval, a report specifying the annual amount of $MTCO_2e$ or MWh reduction achieved by the renewable energy project(s), or actions, or activities; submit evidence that the renewable energy project(s), actions, or activities are not being used to offset GHG emissions for any other project or entity; and submit any other information requested by the City's Community Development Department to verify the amount of GHG

emissions reduction achieved by the renewable energy project, or actions or activities (collectively, "GHG Emission Reduction Report").

b) If the GHG Emission Reduction Report is approved by the City, a reduction to the required offsets shall be calculated by the City's Community Development Department, and the reduction of offsets shall be transmitted to the project proponent in writing and the amount of GHG reduction shall count toward the required GHG reduction for the proposed project ("GHG Reduction").

2. Purchase GHG emission offsets in conformance with paragraph A(3) above in an amount sufficient to achieve the required reduction of $MTCO_2e$ or MWh specified above, which may be decreased by the amount of annual $MTCO_2e$ or MWh reduction that is achieved by any renewable energy project(s) or other verifiable action or activities if developed and/or implemented pursuant to paragraph (1) above. The purchase of offsets to achieve the required reduction in $MTCO_2e$ or MWh shall occur as follows:

   a) Each project component shall purchase offsets for its first 2 years of operation;

   b) Purchase offsets at least annually thereafter, prior to becoming operational, beginning with the third year of operation, for the life of the proposed project component's operations or until the termination of any lease agreement between the City and the project proponent. The project proponent may purchase more than 1 year of operation emissions offsets, consistent with the amount of $MTCO_2e$ or MWh reduction specified above for the corresponding project component.

   c) On or before the first year of operation of the respective project proponent and annually thereafter, the project proponent shall submit certificates for offsets purchased to achieve the required GHG emission reductions, including written verification by a qualified consultant approved by the City that the offsets meet the requirements for GHG emission offset credits set forth in paragraph A(3) above, to the City's Community Development Department.

D. Adjustments to Required GHG Emissions Reductions.

If the project proponent complies with paragraphs A(1) or A(2) above, in an amount that meets the total amount of $MTCO_2e$ or MWh reductions specified above in the reduction target, or complies with paragraph A(3) above and purchases the requisite offsets, or does a combination of paragraphs A(1), (2), and (3) to meet the reduction target, then nothing further shall be required under this mitigation measure.

1. Reduction of Emissions through Development of a Renewable Energy Project Requirement: Although none are identified at this time, the project proponent may be required by the City to develop a renewable energy project at any time during the life of the project (subject to future approvals and the priorities listed above) and may request a reduction of required offsets. If any reduction in offsets is requested by the project proponent because of the development of a renewable energy project(s), the project proponent shall submit a GHG Emission Reduction Report for the City's Community Development Department's review, pursuant to the process specified above in paragraph C(1) above, and required offsets shall be determined by the City and reduced.

2. Reduction of Emissions through Verifiable Actions or Activities in the City of National City Requirement: Although none are identified at this time, the project proponent may be

required by the City to take other verifiable actions or activities at any time during the life of the project (subject to future approvals and the priorities listed above) and may request a reduction of required offsets. If any reduction in offsets is requested by the project proponent because of the other verifiable actions or activities on tidelands, the project proponent shall submit a GHG Emission Reduction Report for the City's Community Development Department's review pursuant to the process specified above in paragraph C(1), and required offsets shall be determined by the City and reduced.

3. Reduction of Emissions through Purchase of Offsets: Subsequent to purchasing GHG emission offsets pursuant to paragraph C(2) above, the project proponent's future annual purchase of offsets to achieve the GHG emissions reduction specific in paragraph B above may be adjusted if the development is less than assumed here, which is the following:
    - City Program Plan includes a 150-room hotel along with 15,500 square feet of restaurant space and 12,000 square feet of retail space.
4. The City or a City-retained consultant (at the project proponent cost) shall calculate, using the best available science, the amount of unused GHG reduction offsets, based on the actual development constructed and in operation. Any unused offsets shall be used for the next year of operation of the project component, and the project proponent shall purchase offsets in the necessary amounts (required amount less any unused offsets) for the subject year. This procedure shall be repeated on an annual basis. In the event that newly discovered information shows that an offset, previously certified as compliant pursuant to paragraph C(3)(c), does not comply with the requirements of paragraph A(3), the project proponent shall purchase an equivalent amount of replacement offsets that comply with the requirements of paragraph A(3) within 30 days of receiving notice of the noncompliance. After verification of unused and available offsets, unused offsets may replace previously compliant offsets should those offsets subsequently be determined noncompliant with paragraph A(3). At the project proponent's written request to the City, the project proponent may waive the annual adjustment described above and purchase the required $MTCO_2e$ or MWh offsets on at least an annual basis.

Level of Significance After Mitigation

Mitigation measures would reduce emissions from project operations. Measures that were quantified include the installation and use of energy-efficient appliances; low-flow faucets, toilets, and showers; water-efficient irrigation systems; waste recycling facilities; and natural-gas hearths. Other measures, such as the use of modern harbor craft equipment, electric heating, and ZNE buildings, have not been quantified because details regarding these measures have not yet been developed, and their feasibility on a project-by-project basis is currently unknown.

As shown in Tables 4.6-13 and 4.6-14, after implementation of **MM-GHG-1** through **MM-GHG-7**, the proposed project would result in emissions below the numerical target. Mitigation would ensure the project would generally comply with plans, policies, and regulatory programs outlined in the adopted Scoping Plan and those adopted or recommended by CARB or other California agencies for the purpose of reducing the emissions of GHGs. However, because no plans, policies, and regulatory programs have been adopted to achieve the carbon neutrality goal set by EO B-55-18, it cannot be stated with certainty that the project would result in emissions that would represent a fair share of the requisite reductions toward the statewide carbon neutrality goal. Therefore, **Impact-GHG-1** would remain significant and unavoidable.

Table 4.6-13. Operational GHG Emissions by Project Component and by Emission Source After Implementation of Mitigation Measures ($MTCO_2e$ per year)

Emission Source	Balanced Plan	GB Capital Component	Pasha Rail Improvement Component	Bayshore Bikeway Component	City Program	Total by Emission Source
2025						
Area	< 1	51	—	< 1	< 1	51
Energy	128	4,732	—	6	1,524	6,390
Motor Vehicles	869	4,107	—	—	2,990	7,966
Boating	—	256	—	—	—	256
Waste	2	100	—	—	70	172
Water	13	112	—	—	32	157
Amortized Construction	*26*	97	6	2	17	148
Annual by Component	1,038	9,455	6	8	4,633	15,139
2050						
Area	< 1	51	—	< 1	< 1	51
Energy	63	2,585	—	—	829	3,477
Motor Vehicles	741	3,502	—	—	2,549	6,792
Boating	—	258	—	—	—	258
Waste	2	100	—	—	70	172
Water	2	35	—	—	10	47
Amortized Construction	*23*	97	6	2	19	148
Annual by Component	834	6,627	6	2	3,476	10,944

Source: Appendix F.
Note: Emissions may not add up exactly because of rounding. Quantified mitigation includes the following: energy-efficient appliances; low-flow faucets, toilets, and showers; water-efficient irrigation, 50% of waste recycled; and only natural-gas hearths.

Table 4.6-14. Operational GHG Emissions Relative to Numerical Targets After Mitigation

Metric	GB Capital Component	City Program
2025		
Annual GHG Emissions (metric tons)[1]	9,199	4,718
Service Population (rooms)[2]	593	150
Project Efficiency Prior to MM-GHG-6 (metric tons per room)	15.5	31.5
Project Efficiency After MM-GHG-6 (metric tons per room)	9.5	9.5
Numerical Target (metric tons per room)	9.5	9.5
Exceed Target?	**No**	**No**
2050		
Annual GHG Emissions (metric tons)[1]	6,627	3,549

Metric	GB Capital Component	City Program
Service Population (rooms)[2]	593	150
Project Efficiency Prior to MM-GHG-6 (metric tons per room)	11.2	23.7
Project Efficiency After MM-GHG-6 (metric tons per room)	0.0	0.0
Numerical Target (metric tons per room)	0.0	0.0
Exceed Target?	**No**	**No**

Source: Appendix F.
[1] Annual operational GHG emissions by source are shown in Table 4.6-16.
[2] The 593 rooms for the GB Capital Component is the sum of 463 hotel rooms, 70 RV spaces, and 60 modular cabins. The 150 rooms for the City Program – Development Components is based on 150 hotel rooms only.

Threshold 2: Conflict with regulatory programs outlined by the District and the City in the Scoping Plan and adopted by CARB or other California agencies for 2030 and post-2030?

Impact Discussion

Construction and operation of the proposed project would have the potential to conflict with relevant plans, policies, and regulatory programs purposes of reducing GHG emissions. This analysis qualitatively discusses the proposed project's consistency with relevant plans, including the District's CAP, the City's CAP, the Scoping Plan, and other plans, policies, and regulatory programs adopted, drafted, or recommended by CARB and other agencies.

District CAP

Project consistency with applicable District CAP measures is summarized in Table 4.6-15. Consistency is analyzed for those project components located in the District's jurisdiction (Balanced Plan, Bayshore Bikeway Component, City Program – Development Component, GB Capital Component, Pasha Rail Improvement Component, and Pasha Road Closures Component) against relevant CAP measures.

Before mitigation, the proposed project components would not be consistent with the CAP because they would not implement all of the applicable reduction measures. This inconsistency would apply to both all project components individually and collectively (**Impact-GHG-2**). All components of the proposed project would be required to implement mitigation measures to ensure consistency with the District's CAP. These measures include diesel reduction measures enforced through **MM-GHG-1**, relevant emission-reducing measures from the District CAP through **MM-GHG-2**, use of modern harbor craft equipment through **MM-GHG-4**, promotion of ZNE buildings through **MM-GHG-5**, and implementation of renewable energy and/or offsets through **MM-GHG-6** (for District projects) and **MM-GHG-7** (for City projects). Moreover, all of the project components' mitigation measures and features will be conditions of approval in each project component's Coastal Development Permit.

Implementation of mitigation would ensure all of the proposed project components would be consistent with the applicable GHG reduction measures in the District's CAP. The proposed project components would be consistent with the District's CAP both individually (each project) and collectively (all projects combined).

Table 4.6-15. Project Consistency with Applicable District CAP Measures (Addresses Balanced Plan, Bayshore Bikeway Component, GB Capital Component, Pasha Rail Improvement Component, and Pasha Road Closures Component)

No.	Measure Description	Project Consistency Analysis
TA2	Support and promote non-Port-owned vehicles and vessels to achieve the lowest emissions possible, using a mix of alternative-fuel, electric, or hybrid technology.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-2** requires charging stations to support electric vehicles be installed in parking areas that support the proposed project. The parking infrastructure would also accommodate carpools, public vans, and other forms of mass transit by providing preferential parking for these uses.
TE4	Promote best vehicle maintenance and operational best practices for harbor craft, including routine engine monitoring.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. Implementation of **MM-GHG-4** will ensure that tugboats and other harbor craft used during construction will be obtained from contractors that promote best vehicle maintenance and operational best practices.
TR1	Implement traffic and roadway management strategies to improve mobility and efficiency and reduce associated emissions on general roadways within Port tidelands.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-TRA-2** (Section 4.12, *Transportation, Circulation, and Parking*) requires project proponents to implement a transportation demand management plan that promotes ride-sharing, vanpooling, and bikeway expansion and provides subsidies for transit passes to reduce worker trips and parking demand.
TR2	Implement traffic and roadway management strategies to improve mobility and efficiency and reduce associated emissions at maritime facilities.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-TRA-2** (Section 4.12, *Transportation, Circulation, and Parking*) requires project proponents to implement a transportation demand management plan that promotes ride-sharing, vanpooling, and bikeway expansion and provides subsidies for transit passes to reduce worker trips and parking demand.
TR3	Vehicle Idling: Enforce state idling laws for commercial vehicles, including delivery and construction vehicles.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-1** requires all commercial vehicles during operations, including delivery trucks, to limit idling times to 3 minutes, which is beyond that required by state law.
TL1	Promote greater linkage between land uses and transit as well as other modes of transportation.	**Consistent**. The proposed project includes Segment 5 of the Bayshore Bikeway, a regional bicycle facility that extends 24 miles around San Diego Bay.
TL2	Increase bicycling and walking opportunities (safe infrastructure to priority destinations) as an alternative to driving.	**Consistent**. The proposed project includes Segment 5 of the Bayshore Bikeway, a regional bicycle facility that extends 24 miles around San Diego Bay. Moreover, **MM-GHG-2** and **MM-GHG-3** require installation of bike parking.
TL3	Restrict the location of drive-through businesses.	**Consistent**. The restaurant and retail uses associated with the proposed project do not include drive-through access.

No.	Measure Description	Project Consistency Analysis
TP1	Adopt a comprehensive parking policy to unbundle the true cost of providing parking. This policy will increase economic fairness while it reduces the frequency of people choosing to drive alone to work.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-TRA-2** (Section 4.12, *Transportation, Circulation, and Parking*) requires project proponents to implement a transportation demand management plan that promotes ride-sharing, vanpooling, and bikeway expansion and provides subsidies for transit passes to reduce worker trips and parking demand.
TV1	Implement trip reduction programs, such as ride-sharing, telecommuting and alternative work schedules, commute trip-reduction marketing, and employer-sponsored vanpool/shuttle.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-TRA-2** (Section 4.12, *Transportation, Circulation, and Parking*) requires project proponents to implement a transportation demand management plan that promotes ride-sharing, vanpooling, and bikeway expansion and provides subsidies for transit passes to reduce worker trips and parking demand.
EB1	Establish green building standards and/or policies for new construction.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-2** requires the project to incorporate energy-efficiency design features to exceed the 2013 Title 24 California Building Energy Efficiency Standards. Measures that may be implemented include high-performance glazing; additional insulation; cool roofs; high-efficiency heating, ventilating, and air-conditioning systems and controls; programmable thermostats; variable-frequency drives; and a high-efficiency lighting and control system. In addition, the project would be required to achieve LEED Silver certification.
EB3	Develop energy-efficiency performance standards that achieve a greater reduction in energy use than otherwise required by state law.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-2** requires the project to incorporate energy-efficiency design features to exceed the 2013 Title 24 California Building Energy Efficiency Standards. Measures that may be implemented include high-performance glazing; additional insulation; cool roofs; high-efficiency heating, ventilating, and air-conditioning systems and controls; programmable thermostats; variable-frequency drives; and a high-efficiency lighting and control system. In addition, the project would be required to achieve LEED Silver certification.
EB6	Replace light fixtures in non-Port facilities with lower energy bulbs, such as fluorescent lights, light-emitting diodes (LEDs), or compact fluorescent lamps.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-2** requires the project to install a high-efficiency lighting system that takes advantage of natural daylighting whenever possible, augmented by daylighting controls and occupancy sensors that turn off the lights in unoccupied spaces.

No.	Measure Description	Project Consistency Analysis
EH1	Adopt a Heat Island Reduction Plan that uses cool roofs, cool pavements, and strategically placed shade trees, and actively inspect and enforce state requirements for cool roofs on non-residential re-roofing projects.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. In accordance with **MM-GHG-2**, the project would install high-performance glazing with a low solar heat-gain coefficient value that reduces the amount of solar heat allowed into the building, without compromising natural illumination. The proposed project also includes a "cool roof" with an R value of 30 or better, sun shading devices as appropriate, light-colored paving at the rooftop public plaza and park area to minimize the heat-island effect, and an integrated green roof.
EH2	Urban Forestry Management: Develop an Urban Forestry Program to consolidate policies and ordinances regarding tree planting, maintenance, and removal.	**Consistent**. According to Section 4.3, *Biological Resources*, the proposed project would not conflict with any policies or ordinances protecting biological resources, including tree preservation policies or ordinances. Moreover, **MM-GHG-2** requires the installation of trees and shrub planters throughout the project area as part of the landscape plan.
EH3	Evaluate existing landscaping and options to convert reflective and impervious surfaces to landscaping, and install or replace vegetation with drought-tolerant, low-maintenance native species that can also provide shade and reduce heat-island effects.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. In accordance with **MM-GHG-2**, the proposed project will install low-water plantings and drip irrigation to minimize water demand for landscaping. In addition, sun shading devices will be used as appropriate.
EL1	Develop and implement performance standards for exterior lighting of commercial and industrial buildings and parking lots that include minimum and maximum lighting levels while providing a safe environment.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. In accordance with **MM-GHG-2**, the proposed project will use high-efficiency outdoor lighting and control systems. In addition, all outdoor lighting will be equipped with LED fixtures.
EL3	Install occupancy sensors (Vending Misers) at soda machines.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-2** requires the installation of occupancy sensors for all vending machines in new buildings at the project site.
WR1	Recycled Water Use: Establish programs and policies to increase the capture and use of recycled water.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. In accordance with **MM-GHG-2**, the proposed project will maximize the use of recycled water for irrigation in the project design.
WC1	Adopt a water conservation strategy.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-2** requires the project to incorporate indoor water reduction measures, including high-efficiency toilets, high-efficiency urinals, low-flow faucets, and low-flow showers (as applicable) in the design. With these measures, the project will be able to achieve a minimum water reduction of 20%.

No.	Measure Description	Project Consistency Analysis
EA2	Implement onsite renewable energy generation policy for 2035 (solar power, wind power, methane recovery, wave power, etc.).	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-2** requires implementation of onsite renewable energy systems on new buildings, given the appropriate structural and operational conditions.
EA3	Implement onsite renewable energy generation policy for 2050 (solar power, wind power, methane recovery, wave power etc.).	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. See EA2. **MM-GHG-2** requires implementation of onsite renewable energy systems on new buildings, given the appropriate structural and operational conditions.
EA7	Promote co-generation (i.e., combined heat and power system) projects.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-2** requires the installation of co-generation systems in new buildings constructed as part of the proposed project.
EA11	Implement a program to install technologies for generating energy from renewable sources such as solar power, wind power, and/or wave power on Port tidelands. Establish progressively more ambitious production goals for 2020, 2035, and 2050.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. See EA2 and EA3. **MM-GHG-2** requires the project proponent to implement a renewable energy program, unless the system cannot be built because of structural and operational constraints, in which case an offsite project would be built or GHG reduction credits purchased.
SW1	Increase the diversion of solid waste from landfill disposal.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-2** specifies compliance with AB 939 and requires 50% of solid waste to be recycled. In addition, each project shall ensure that 65% of all construction and demolition debris will be recycled.
SW2	Adopt a Construction and Demolition Recycling Ordinance.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-2** requires the project to divert construction and demolition debris from disposal in landfills and incineration facilities by 65%.
SW3	Develop policy to reduce the generation of solid waste.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-2** specifies compliance with AB 939 and requires 50% of solid waste to be recycled. In addition, compliance with the City's Construction and Demolition Debris Deposit Ordinance would require 65% of all construction and demolition debris to be recycled. **MM-GHG-2** would also encourage the use of recycled, regional, and rapidly renewable materials where appropriate during construction.
MP4	Require Port and encourage Port tenants to purchase goods and services that embody or create fewer GHG emissions.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. In accordance with **MM-GHG-2**, project proponents would be encouraged to use recycled, regional, and rapidly renewable materials where appropriate during construction.

No.	Measure Description	Project Consistency Analysis
MP5	Pursue offsite GHG reduction strategies.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-6** requires the project proponent to purchase offsite carbon credits or develop offsite renewable energy if renewable energy is not a feasible mitigation strategy. The resulting offset would be identical to the use of renewable energy.

Source [of first and second columns of table]: District 2013
TA = Transportation and Land Use – Alternative Powered Vehicles; TR = Transportation and Land Use – Roadway System Management; TL = Transportation and Land Use – Land Use/Community Design; TP = Transportation and Land Use – Parking Policy/Pricing; EB = Energy Conservation and Efficiency – Building Energy Use; EH = Energy Conservation and Efficiency – Heat Gain and Shading; WR = Water Recycling; WC = Water Conservation; SW = Waste Reduction and Recycling; MP = Programs and Outreach

City CAP

In addition to the District CAP, the City CAP contains measures designed to reduce GHG emissions in an effort to reach the state's reduction goals. Because the City Program – Development Component and portions of the Bayshore Bikeway Component and the GB Capital Component are the only components of the proposed project that are within City's jurisdiction, consistency with the City CAP will be evaluated only for uses proposed for these three components. Table 4.6-16 outlines the City Program – Development Component's, GB Capital Component's, and Bayshore Bikeway Component's consistency with the applicable measures from the CAP.

Before mitigation, the proposed project components would not be consistent with all applicable measures in the City's CAP. This inconsistency would apply to both project components individually and collectively (**Impact-GHG-3**). Implementation of **MM-GHG-3** would ensure that project components within the City's jurisdiction would be consistent with all applicable GHG-reducing measures from the CAP.

Table 4.6-16. Consistency with Applicable National City CAP Measures (Addresses City Program – Development Component, and portions of the Bayshore Bikeway Component and portions of the GB Capital Component)

No.	Measure Description	Project Consistency Analysis
A1.b.2	Encourage LEED certification for all new commercial and industrial buildings.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. The project would achieve LEED Silver certification, as described in **MM-GHG-3**.
A2.b.2	Implement bicycle corridor improvements and supportive infrastructure.	**Consistent**. The Bayshore Bikeway would extend generally from Civic Center Drive on the north to West 32nd Street on the south, traversing the City's LCP and areas of the District's PMP.
A2.b.3	Implement strategies that prioritize parking for high-occupancy vehicles (carpools, vanpools, and transit vehicles).	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-TRA-2** (Section 4.12, *Transportation, Circulation, and Parking*) requires project proponents to implement a transportation demand management plan that promotes ride-sharing, vanpooling, and bikeway expansion and provides subsidies for transit passes to reduce worker trips and parking demand.

No.	Measure Description	Project Consistency Analysis
A2.b.4	Encourage employers to institute telework programs and alternative work schedules to reduce commuting during peak hours.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-TRA-2** (Section 4.12, *Transportation, Circulation, and Parking*) requires project proponents to implement a transportation demand management plan that promotes ride-sharing, vanpooling, and bikeway expansion and provides subsidies for transit passes to reduce worker trips and parking demand.
A2.b.5	Encourage employers to institute programs that provide financial incentives for commuters to reduce vehicle trips and use alternative transportation modes like walking, bicycling, public transit, and carpooling, often as an alternative to subsidized employee parking.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-TRA-2** (Section 4.12, *Transportation, Circulation, and Parking*) requires project proponents to implement a transportation demand management plan that promotes ride-sharing, vanpooling, and bikeway expansion and provides subsidies for transit passes to reduce worker trips and parking demand.
A3.a.1	Implement a program to reduce, reuse, and recycle community construction and demolition waste.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-3** requires the project proponent implement a program to reduce, reuse, and recycle construction and demolition waste.
A4.a.1	Adopt water efficiency principles similar to the Ahwahnee Water Principles for Resource Efficient Land Use for new and existing residential and commercial developments.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-3** requires the project to incorporate indoor water reduction measures, including high-efficiency toilets, high-efficiency urinals, low-flow faucets, and low-flow showers (as applicable), as well as outdoor water reduction measures, including low-water plantings and drip irrigation, in the design.
B1.a.12	Encourage rooftop gardens, especially for large, flat-roofed industrial, commercial, and institutional buildings.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-GHG-3** encourages the installation of rooftop gardens for flat-roofed commercial buildings.
B2.a.1	Implement programs and provide incentives to encourage reduced emissions from employee commuting, including telecommuting, alternative work schedules, carpooling/vanpooling, and active transportation.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. **MM-TRA-2** (Section 4.12, *Transportation, Circulation, and Parking*) requires project proponents to implement a transportation demand management plan that promotes ride-sharing, vanpooling, and bikeway expansion and provides subsidies for transit passes to reduce worker trips and parking demand.
B4.a.2	Develop and implement a motor/pump-efficiency cycling schedule to use more efficient water or wastewater motors/pumps first.	**Inconsistent (Consistent After Implementation of Mitigation Measures)**. In accordance with **MM-GHG-3**, the project proponent shall incorporate pump-efficiency cycling schedules into the project design.

Source: National City 2011.

Consistency with State Plans, Programs, and Policies (Addresses Balanced Plan, Bayshore Bikeway Component, City Program – Development Component, GB Capital Component, Pasha Rail Improvement Component, and Pasha Road Closures Component)

The District and City CAPs will be expired by the time the proposed project is operational (assumed to be 2025). The District and the City will update their CAPs with measures and methodologies that are similar to those in their current plans and comply with regulatory state programs designed to address state GHG emission reductions post-2020 at some point in the future. Many of the measures in the existing CAPs will continue to be implemented and result in emission benefits well beyond the 2020 timeframe. As of the time of this analysis, there is no timetable for completion of these post-2020 CAPs.

The 2017 Scoping Plan builds on the programs set in place as part of the previous Scoping Plan that was drafted to meet the 2020 reduction targets per AB 32. The 2017 Scoping Plan proposes meeting the 2030 goal by both accelerating the focus on several existing programs and incorporating new strategies and programs that go beyond existing measures and strategies. Although the measures included in the 2017 Scoping Plan are necessarily broad, the project would be generally consistent with the goals and desired outcomes of the Scoping Plan. The project's consistency with the 2017 Scoping Plan strategies is provided in Table 4.6-17. As shown, the proposed project would be generally consistent with those statewide programs in the 2017 Scoping Plan that have been adopted. In each case, the state program requires no action at the project level, and benefits to project-related emission sources will be realized over time. For example, the Scoping Plan incorporates SB 350, which extends the RPS to a 50% target by 2030 while doubling the energy efficiency savings expected statewide. In addition, CARB expanded the LCFS, aiming to achieve an 18% reduction in the carbon intensity of transportation fuels. Furthermore, the Mobile-Source Strategy aims to support the transition to 1.5 million ZEVs (e.g., plug-in hybrid electric, battery-electric, hydrogen fuel cell) by 2025 and 4.2 million by 2030 while also ramping up GHG stringency for all light-duty vehicles. Each of these measures will be implemented over time, and benefits to project-related emission sources will be realized over time.

Table 4.6-17. Proposed Project Consistency with Applicable Policies from the 2017 Scoping Plan and Other Applicable Statewide Measures (Addresses Balanced Plan, Bayshore Bikeway Component, City Program – Development Component, GB Capital Component, Pasha Rail Improvement Component, and Pasha Road Closures Component)

Policy	Primary Objective	Project Consistency Analysis
SB 350 (superseded by SB 100)	Reduce GHG emissions in the electricity sector through the implementation of the 50% RPS, doubling of energy savings, and other actions as appropriate to achieve GHG emissions reductions and planning targets in the Integrated Resource Plan process.	**Consistent.** This is a state program that requires no action at the local or project level. Benefits to project-related electricity and water consumption will be realized. The project will be subject to regulations or actions developed to implement the goals of SB 350. Mitigation will require various strategies to reduce energy demands, such as exceeding current building standards, ensuring water and lighting efficiency, and installing renewable-energy technology. Mitigation promotes the development of all-electric buildings and requires proponents to implement ZNE construction if such regulations are adopted.

Policy	Primary Objective	Project Consistency Analysis
Low-Carbon Fuel Standard	Transition to cleaner/less-polluting fuels that have a lower carbon footprint.	**Consistent.** This is a state program that requires no action at the local or project level. Benefits to project-related employee travel, haul truck travel, and harbor craft will be realized independently. Mitigation requires dedicated parking for electric vehicles and pre-wiring for future plug-in electric-vehicle charging stations.
Mobile-Source Strategy (Cleaner Technology and Fuels Scenario)	Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems, and reduction of VMT.	**Consistent.** This is a state program that requires no action at the local or project level. Benefits to project-related employee travel and haul truck travel will be realized independently. Nonetheless, new land uses will be situated near existing transit and expand bikeways, reduce VMT, and include mitigation related to installing wiring for electric-vehicle charging to promote ZEV use.
SB 1383	Approve and implement SLCP strategy to reduce highly potent GHGs.	**Consistent.** This is a state program that requires no action at the local or project level. Mitigation requires project proponents to implement programs to promote waste reduction, recycling, or composting and commercial, retail, and restaurant uses to abide by organic waste collection, hauling, and composting standards.
California Sustainable Freight Action Plan	Improve freight efficiency, transition to zero-emission technologies, and increase competitiveness of California's freight system.	**Consistent.** This is a state program that requires no action at the local or project level. This program aims to improve freight efficiency by 25%, deploy more than 100,000 zero-emission freight vehicles, and increase the competitiveness of California's freight system. This program is applicable only to the Pasha Rail Improvement Component of the proposed project, which proposes adding a connector track to improve the efficiency of freight operations at the terminal. As discussed in Chapter 3, *Project Description,* no increase in marine terminal-related cargo throughput is associated with the proposed project.
Post-2020 Cap-and-Trade Program	Reduce GHGs across largest GHG emission sources.	**Consistent.** This a state program that requires no action at the local or project level. This program is not directly applicable to the proposed project because no sources that are regulated under the Cap-and-Trade Program are proposed.

Source: CARB 2017a.

Based on the available threshold concepts recommended by the courts, GHG emissions from the project are evaluated on a sector-by-sector (e.g., transportation, water, energy) basis using the most applicable regulatory programs, policies, and thresholds recommend by the District, CARB, and OPR, as described below. The sector-by-sector analysis matches CARB's approach in the Scoping Plan.

Transportation (Motor Vehicles) (Addresses Balanced Plan, City Program – Development Component, and GB Capital Component)

GHG emissions associated with on-road mobile sources would be generated from workers' and visitor's motor vehicles as well as delivery vehicles associated with the various project components. As shown in Table 4.6-11, emissions from mobile sources represent the largest source of proposed project emissions.

Federal, state, and local regulatory efforts target three elements of emissions reduction from mobile sources, vehicle fuel efficiency, the carbon content of fuels, and VMT. Most adopted programs and regulations focus on fuel efficiency (e.g., CAFE standards, Pavley standard) and reducing the carbon intensity of transportation fuels (e.g., LCFS). Vehicle electrification is also rapidly becoming part of the state's approach to reducing mobile-source emissions (e.g., Advanced Clean Cars). The proposed project does not include any features that would conflict with these programs. Rather, **MM-GHG-2** requires project proponents within the District's jurisdiction to implement dedicated parking and install charging stations for plug-in electric vehicles for a certain number of new parking spaces. **MM-GHG-3** requires project proponents within the City's jurisdiction to prioritize parking for high-occupancy, carpool, and transit vehicles; encourage telework programs and alternative work schedules for new businesses; and provide financial incentives for commuters to reduce vehicle trips through walking, bicycling, taking public transit, and carpooling. Lastly, **MM-GHG-2** and **MM-TRA-2** require each project proponent to develop and implement a transportation demand management plan during construction and operations, including a Mandatory Employer Commute Program. Although mitigation would invariably reduce project-related VMT in support of state- and region-wide efforts, these measures may not be enough to reduce the project's effect on VMT per service population to a less-than-significant level (i.e., below CARB and OPR recommendations).

The proposed project is in a location with alternative modes of transportation. The City Program – Development Component of the proposed project would be approximately 0.2 mile from the 24th Street Transit Center Station. Pedestrian facilities (i.e., sidewalks) are currently provided on Marina Way, Bay Marina Drive, and Cleveland Avenue. The Bayshore Bikeway path is a 24-mile bicycle facility that runs along San Diego Bay. Currently, temporary bicycle facilities are provided on Tidelands Avenue and West 32nd Street, until the Bayshore Bikeway Component of the proposed project is constructed. The bikeway would be a Class I (bike path) facility and would replace an existing interim Class II (bike lane) and Class III (bike route) facility.

As discussed above, California adopted SB 375 to integrate transportation planning, regional housing allocation, and GHG reduction through reductions in VMT. The GHG reduction targets adopted by CARB and incorporated by Metropolitan Planning Organizations in their RTP/SCS were expected to achieve much of the required VMT reduction needed for the state to meet its long-term GHG reduction targets. However, a recent CARB assessment makes clear that the state "is not on track to meet greenhouse gas reductions expected under SB 375" (CARB 2018). Accordingly, additional GHG reduction, specifically through further reductions in VMT, is needed to meet the state's climate change objectives (CARB 2019c).

SB 743 is intended to close the VMT and emissions reduction gap. There is a nexus between SB 743 and the state's goals to reduce mobile-source GHG emissions. One criterion under SB 743 for determining the significance of the transportation impacts of a project is a reduction in GHG emissions. In response to SB 743, OPR released its revised *Technical Advisory on Evaluating Transportation Impacts in CEQA* in December 2018. The advisory indicates that "achieving 15% lower per capita (residential) or per employee (office) VMT than existing development is both

generally achievable and is supported by evidence that connects this level of reduction to the state's emissions goals" (OPR 2018). This OPR reduction goal is consistent with recent CARB (2019) analysis, which demonstrates that a 14.3% reduction in VMT per capita by 2050 (compared to a 2015–2018 average) would be needed statewide to meet its GHG planning goals through 2050.

The project does not propose any residential land uses; therefore, use of a per capita VMT metric is not applicable, consistent with guidance from OPR (2018). However, as discussed in Section 4.13, *Transportation, Circulation, and Parking*, employment uses associated with the proposed project are anticipated to generate VMT per employee that would exceed the long-term regional VMT target. Therefore, because employment VMT would exceed the regional target, the proposed project would not fully support CARB's VMT reduction planning and GHG reduction goals and would conflict with the state's long-term emission reduction trajectory.

As noted in Section 4.13, *Transportation, Circulation, and Parking*, the proposed project's retail uses are anticipated to be local-serving uses. Per OPR, local-serving retail uses tend to shorten vehicle trips and reduce VMT by diverting trips from existing retail to new local retail without increasing the number of trips outside the local area. Therefore, because the retail uses associated with the proposed project are anticipated to be local-serving uses, VMT impacts from retail uses would be less than significant.

Although the proposed project introduces uses and measures that would be consistent with the state's goals to reduce VMT and promote alternative forms of transportation by developing in proximity to transit and promoting the expansion of bikeways, it is unlikely these features of the project would result in a VMT reduction consistent with statewide and regional reduction goals. Accordingly, mobile-source emissions associated with the project could conflict with the attainment of the state's 2030 reduction target and long-term emission reduction trajectory.

Transportation (Boating) (Addresses GB Capital Component)

GHG emissions associated with boating would be generated by recreational boats visiting the waterside features of the GB Capital Component. As shown in Table 4.6-11, emissions from recreational boating represents a small share (2%–3%) of proposed project emissions.

Recreational boating includes personal watercraft (jet skis), sailboats, jet boats, and yachts. Smaller watercraft are typically gasoline powered; larger yachts are typically diesel powered. CARB has proposed and adopted regulations for certain marine vessels, and regulations have been proposed for other spark-ignition engines used in boats for propulsion to reduce ozone precursor emissions. Spark-ignition auxiliary marine engines (power generators, winches, or auxiliary propulsion engines for sailboats) are defined as small off-road spark-ignition engines (below 25 horsepower [hp]) or large off-road spark-ignition engines (25 hp and greater), depending on their size. Compression-ignition auxiliary and propulsion marine engines under 50 hp are defined as off-road diesel (compression-ignition) engines. Large yachts generally include engines that are regulated under CARB's harbor craft rules (District 2018).[8]

The 2017 Climate Change Scoping Plan does not specifically plan for or identify emissions reductions from smaller watercraft used for personal recreational boating. However, the modeling

[8] Harbor craft include a variety of vessel and boat types that serve many functions within and near San Diego Bay, including crew and supply boats, charter fishing vessels, commercial fishing vessels, ferry and excursion vessels, pilot vessels, towboats or push boats, tug boats, and work boats.

to support the 2017 Scoping Plan Update does include an assumption that a certain percentage of diesel harbor craft will convert to electricity. Starting in 2020, that modeling assumes 6% of harbor craft energy will be fully electric by 2050, and 71% of harbor craft energy will be diesel hybrid by 2050. Although not directly applicable to recreational boating, these technologies may make their way into the recreational boating market, particularly for large diesel yachts.

MM-GHG-2 requires the project proponent to install shore power capabilities where suitable upgrades are feasible in the marina so that larger watercraft (such as large yachts) can plug into shore-side power while docked in the marina (instead of running auxiliary engines to maintain the ship's power needs). This measure is consistent with District CAP measure TA4, which promotes electrification of marinas.

Energy Sources (Addresses Balanced Plan, Bayshore Bikeway Component, City Program – Development Component, and GB Capital Component)

GHGs are emitted directly from typical development through the combustion of any type of fuel (e.g., natural gas for space and water heating). GHGs can also be emitted indirectly from the generation of electricity. As shown in Table 4.6-11, emissions from energy consumption represent the second-largest source of project emissions.

The 2017 Climate Change Scoping Plan outlines strategies to reduce energy demand and fossil fuel use while increasing energy efficiency and renewable energy generation. These strategies include transitioning to cleaner fuels, increasing efficiency in existing buildings, and electrifying end uses. Several of these strategies are reflected in state laws and regulatory programs. For example, SB 100 requires a doubling of energy efficiency by 2030 and a 60% renewable energy supply by 2030. SB 100 also sets a target of 100% carbon-free electricity by 2045. The 2019 Title 24 standards mandate higher efficiency levels and rooftop solar photovoltaic systems for all new residential buildings constructed in 2020 and beyond. Future standards are expected to result in ZNE for newly constructed commercial buildings. The CEC also enforces the Appliance Efficiency Regulations contained in Title 20 of the CCR. The regulations establish water and energy efficiency standards for both federally regulated and non-federally regulated appliances.

The District's Green Port Policy (BPC Policy No. 736) includes various policy objectives, some of which cover energy uses. For example, one policy objective requires the District to strive to strengthen the District's financial position by maximizing the long-term benefits of energy and resource conservation. The District has implemented various projects to reduce energy consumption, including retrofitting existing lighting to more efficient LED technology, providing educational programs for employees, conducting energy audits on District facilities to identify future initiatives, and installing solar photovoltaic systems at four facilities owned by the District. In addition, the District is working on installation of a solar-powered microgrid at the Tenth Avenue Marine Terminal. Furthermore, the District's CAP includes numerous goals for efficient consumption of energy (e.g., energy retrofits, efficient lighting) and renewable energy production.

The City General Plan includes various goals and policies related to energy conservation and an overall reduction in National City's carbon footprint. Policy CS-1.1 requires the City to develop and adopt new or amended regulations or programs to address all sources of emissions, including, but not limited to, sustainable and efficient land use patterns and improved transportation, building, and appliance energy efficiency. Goal CS-7 includes various policies to lower per capita energy demands through an increase in alternative and renewable energy sources. Policies include promoting green building practices and striving to achieve ZNE for new commercial development by

2030. Moreover, the City's CAP includes numerous goals for efficient consumption of energy (e.g., energy retrofits, encouragement of green buildings) and renewable energy production (e.g., support SDG&E and policies to facilitate small-scale renewable energy installation, encourage local homebuilders to participate in the New Solar Homes Partnership).

The above energy-efficiency and renewable energy policies are consistent with the 2017 Scoping Plan's overall goal of reducing building energy emissions to meet the state's 2030 GHG reduction target. Although new development would be required to comply with the Title 24 standards applicable at the time of construction, neither the PMP nor the City General Plan explicitly require new development to use high-efficiency or Energy Star appliances, which are recognized by OPR (2018) as critical design features for new development. Accordingly, the proposed project may conflict with the 2017 Scoping Plan and attainment of the state's 2030 reduction target prior to mitigation.

To meet the state's expressed interest in pursuing carbon neutrality (EO B-55-18), OPR (2018) recommends that new buildings should be all electric. Because SB 100 obligates utilities to supply 100% carbon-free electricity by 2045, all-electric buildings that do not include onsite fuel combustion (such as natural gas) would not generate emissions. As discussed above, although the PMP, City General Plan, and CAPs encourage energy efficiency and renewable energy, there is nothing that requires new buildings to be fully electric. Continued consumption of fossil fuels by buildings constructed under the proposed project would generate energy emissions and could conflict with the state's long-term emission reduction trajectory. **MM-GHG-5** promotes all-electric and ZNE buildings and ensures that future project proponents will implement zero-emission building standards if and when they are adopted.

Solid Waste (Addresses Balanced Plan, City Program – Development Component, and GB Capital Component)

Solid waste emissions result from CH_4 associated with decomposition as well as CO_2 emissions associated with the combustion or flaring of CH_4. Solid waste may be disposed of in landfills or diverted for recycling, composting, reuse, or other uses to avoid landfilling. As shown in Table 4.6-11, emissions from solid waste represent a small share (2%–3%) of project emissions.

The 2017 Scoping Plan aims to reduce waste emissions by diverting waste from landfills through waste reduction, re-use, composting, and material recovery. It does not set quantitative targets for reducing waste emissions but does aim to reduce the amount of waste that enters landfills, with a goal of reducing solid waste–related GHG emissions due to organic diversion (i.e., composting) by 14%. AB 341 requires mandatory recycling for certain commercial businesses. AB 341 also established a statewide recycling goal of 75% by 2020. Implementation measures include source reduction, recycling, or composting. Forthcoming regulations pursuant to SB 1383 will establish minimum standards for organic waste collection, hauling, and composting. The final regulations will take effect on or after January 1, 2022.

MM-GHG-2 and **MM-GHG-3** include measures to require recycling of construction and operation waste. AB 1826 requires all businesses to recycle their organic waste. EDCO conducts free onsite visits to help businesses and multifamily properties comply with AB 1826 in National City. **MM-GHG-2** and **MM-GHG-3** also include measures to ensure that commercial, restaurant, and retail uses implement recycling, composting, and reusable product use programs that are effective opening day. The emphasis on composting and provision of composting services is consistent with the 2017

Scoping Plan and would support AB 341's and SB 1383's overall goals of reducing landfilled waste and associated CH_4 emissions.

Water and Wastewater (Addresses Balanced Plan, City Program – Development Component, and GB Capital Component)

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of water. Wastewater emissions include CH_4 and N_2O, which are generated by wastewater treatment at individual wastewater treatment plants. The project does not include any new wastewater treatment plants. As shown in Table 4.6-11, emissions from water and wastewater represent a small share (less than 2%) of project emissions.

The 2017 Scoping Plan outlines objectives and goals to reduce GHGs in the water sector, including using and reusing water more efficiently through greater water conservation, drought-tolerant landscaping, stormwater capture, and water recycling. Regulations have further targeted the water supply and water conservation through building and landscaping efficiency (e.g., Title 24). The Water Conservation Act of 2009 set an overall goal of reducing per capita urban water use by 20% by December 31, 2020. The 2017 Scoping Plan also proposes that local water and wastewater utilities adopt a long-term water conservation goal to reduce GHGs by 80% below 1990 levels by 2050 and thereafter move toward low-carbon or net-zero-carbon water management systems. These goals are consistent with those established by the California Department of Water Resources in their 2020 CAP (California Department of Water Resources 2020).

MM-GHG-2 includes indoor and outdoor water efficiency measures, including a 20% target reduction in indoor water use and the installation of low-water plantings and drip irrigation for project components within the District's jurisdiction. **MM-GHG-3** requires water efficiency for project components within the City's jurisdiction, including water-efficient landscaping, water recycling, and the use of low-flow faucets and appliances. These measures are consistent with the 2017 Scoping Plan's water measures and the state's regulatory programs within the water sector.

Area Sources (Addresses Balanced Plan, City Program – Development Component, and GB Capital Component)

Area sources emitting GHGs include hearth usage (including wood-burning fireplaces) and landscaping equipment. As shown in Table 4.6-11, emissions from area sources represent a small share (no greater than 1%) of project emissions. Moreover, **MM-AQ-7** would ensure that there would be no wood-burning fireplaces, firepits, or other such devices.

CARB has not developed any relevant measures in the Scoping Plan or other regulations related to area-source emissions. CARB adopted emissions standards for small off-road engines (i.e., landscape equipment) in 1990. More recently, CARB stated its intent to consider new standards for small engines in 2020, including regulatory and incentive approaches and a major shift to zero-emission equipment (CARB n.d.). However, to date, adopted CARB emission standards are aimed at reducing smog-forming pollutants. No standards have been adopted that are aimed at reducing GHG emissions from small off-road engines.

Under SB 563, CARB has developed the Woodsmoke Reduction Program, which offers incentives toward the voluntary replacement of existing uncertified residential wood-burning devices used for space heating with cleaner and more efficient alternatives. Replacement options include ductless

mini-split heat pumps and stoves that are fueled by natural gas, propane, electricity, or wood if the particulate matter emission rate is lower than 2.0 grams per hour and it is certified to EPA "Step 2" New Source Performance standards. The program is maintained through the Greenhouse Gas Reduction Fund (CARB 2019d).

Although the 2017 Scoping Plan does not include specific measures for landscape equipment or hearths, the emission reduction analysis for attainment of the 2030 target in the Scoping Plan assumes implementation of high-efficiency natural gas appliances (e.g., hearths). New development associated with the GB Capital Component—specifically, the RV park—could result in either wood or natural-gas hearths. Although the hearths would be required to comply with minimum building standards in place at the time of construction, neither the District's PMP nor the City's General Plan mandates them to be high efficiency. There are also no specific provisions for exterior electric outlets, which would support the 2017 Climate Change Scoping Plan's goal for decarbonizing off-road equipment. Accordingly, the proposed project may conflict with the 2017 Climate Change Scoping Plan and attainment of the state's 2030 reduction target prior to mitigation.

Achieving the state's long-term climate change goals under S-3-05, B-55-18, and SB 100 will inevitably require the transition away from fossil-fuel power energy sources, including, but not limited to, landscaping equipment and natural-gas hearths and fireplaces. Recognizing this, OPR (2018) guidance recommends that land use development projects strive to avoid fossil fuels. Because the project has a buildout year beyond the 2030 milestone, use of fossil-fuel-powered landscaping equipment and hearths on the project site would generate GHG emissions and may conflict with attainment of the state's long-term emission reduction trajectory.

High GWP Emissions (HFCs) (Addresses Balanced Plan, City Program – Development Component, and GB Capital Component)

HFCs are synthetic gases that may be used in residential refrigeration and air-conditioning units as well as in motor vehicle air-conditioning units. Emissions of HFCs occur as a result of wear, faulty maintenance, and leakage at the end of a product's lifetime.

The 2017 Scoping Plan assumes implementation of the SLCP Reduction Strategy and attainment of the state's SLCP reduction targets for HFCs. The SLCP Reduction Strategy identifies four state strategies that will develop grants and incentives for alternatives to HFCs as well as evaluate the feasibility of a new ban on HFCs in new non-residential refrigeration units, air-conditioning (non-residential and residential) units, and residential refrigerators and freezers. Regulations stemming from these strategies have not yet been developed (Sacramento Metropolitan Air Quality Management District 2019). Both existing and new development, including commercial, retail, and restaurant development associated with the proposed project, would be required to comply with state regulations that are in place at the time of construction for minimizing HFCs.

Conclusion for Consistency with State Plans, Programs, and Policies

As discussed above, the proposed project could conflict with the state's emission reduction goals and trajectory—specifically, within the area, energy, transportation, water, and waste sectors. The long-term climate change policy and regulatory changes and programs to reduce emissions in line with the long-term emissions reduction and carbon neutrality goals are unknown at this time. Although the state's intent is to pursue and maintain carbon neutrality over the long term, the state has not yet adopted a plan or framework to meet this goal. Therefore, although emissions and related impacts can be reasonably evaluated, pursuant to the adopted 2030 reduction target and

based on the sector-specific programs in the adopted 2017 Scoping Plan, impacts related to activities beyond 2030 are more difficult to evaluate in that the state has not adopted post-2030 reduction targets or a plan to achieve post-2030 targets. Therefore, although the proposed project is generally consistent with adopted statewide programs within or associated with the adopted Scoping Plan (see Table 4.6-15), development associated with the proposed project could be inconsistent with the statewide trajectory toward long-term carbon neutrality, given the absence of a plan to get there (see sector-by-sector analysis, above). Mitigation measures are required to close the gap and ensure that projects implemented over time stay in line with the state of the science regarding development standards (e.g., if ZNE regulations are adopted at the state or local level). Despite this, impacts related to compliance with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs would be potentially significant.

Level of Significance Prior to Mitigation

Prior to implementation of mitigation measures, the proposed project would not be consistent with the District CAP and the City CAP—specifically, the numerical efficiency target and reduction measures specified therein—and would only partially comply with plans, policies, and regulatory programs outlined in the Scoping Plan or otherwise adopted or anticipated to be adopted by CARB or other California agencies for the purpose of reducing the emissions of GHGs. Potentially significant impact(s) include:

Impact-GHG-2: Inconsistency with District Climate Action Plan and Only Partial Consistency with Statewide Greenhouse Gas Reduction Plans, Policies, and Regulatory Programs (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component). The project would only partially comply with plans, policies, and regulatory programs outlined in applicable District CAP measures and applicable state reduction goals and plans, policies, or regulations (e.g., AB 32 Scoping Plan Measures for 2020, SB 32 Scoping Plan Measures for 2030, and other applicable statewide measures) for the purpose of reducing emissions of GHGs. Therefore, prior to the application of any mitigation, the impact related to consistency with relevant plans, policies, and programs would be significant.

Impact-GHG-3: Inconsistency with City Climate Action Plan and Only Partial Consistency with Statewide Greenhouse Gas Reduction Plans, Policies, and Regulatory Programs (City Program – Development Component, a Portion of the Bayshore Bikeway Component**, and a Portion of the GB Capital Component).** The project would only partially comply with plans, policies, and regulatory programs outlined in applicable City CAP measures and applicable state reduction goals and plans, policies, or regulations (e.g., AB 32 Scoping Plan Measures for 2020, SB 32 Scoping Plan Measures for 2030, and other applicable statewide measures) for the purpose of reducing emissions of GHGs. Therefore, prior to the application of any mitigation, the impact related to consistency with relevant plans, policies, and programs would be significant.

Mitigation Measures

For **Impact-GHG-2**:

Implement **MM-GHG-1**, **MM-GHG-2**, **MM-GHG-4**, and **MM-GHG-5**.

For **Impact-GHG-3**:

Implement **MM-GHG-1**, **MM-GHG-3, MM-GHG-4**, and **MM-GHG-5.**

Level of Significance After Mitigation

Impact-GHG-2 would be reduced to less than significant after implementation of mitigation measures **MM-GHG-1**, **MM-GHG-2**, **MM-GHG-4**, and **MM-GHG-5**; **Impact-GHG-3** would be reduced to less than significant after implementation of mitigation measures **MM-GHG-1**, **MM-GHG-2**, **MM-GHG-3, MM-GHG-4**, and **MM-GHG-5** because the project would be consistent with the relevant plans, policies, and regulatory programs, including the Scoping Plan and Sustainable Freight Action Plan, after mitigation. Therefore, the impact would be less than significant.

Climate Change Threshold 1: Implementation of the proposed project would not exacerbate any existing and/or projected damage to the environment, including damage to existing structures and coastal resources, due to predicted climate change effects, particularly sea-level rise.

Impact Discussion

Several impacts on the environment are expected throughout California as a result of global climate change. The extent and timing of these effects are still being refined as climate modeling tools become more robust. Regardless of the uncertainty in precise predictions, it is widely understood that substantial climate change is expected to occur in the future. Given the project site's location at the bayfront, the climate change issue of note is sea-level rise.

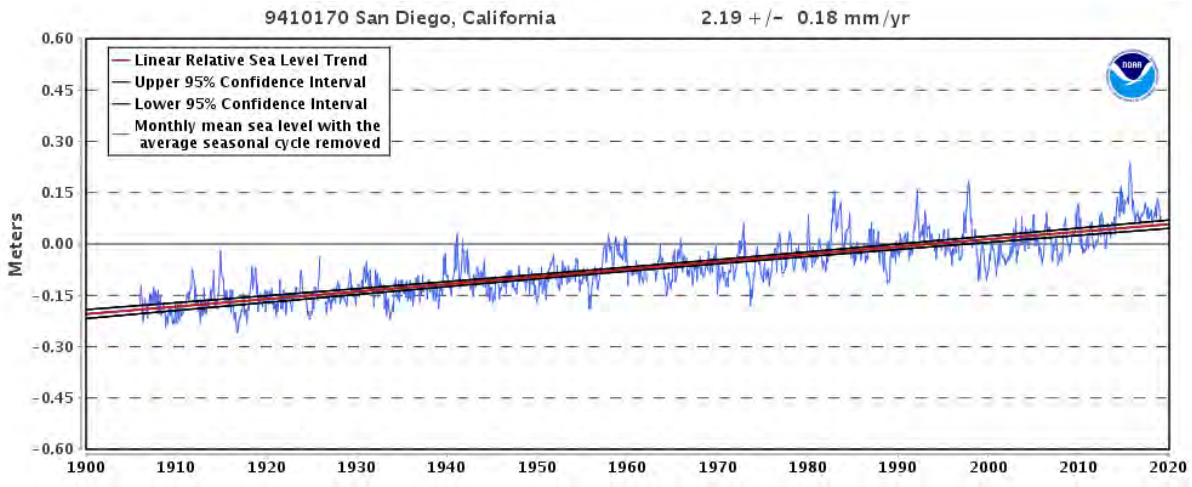
In *California Building Industry Assoc. v. Bay Area Air Quality Management District [Dec. 17, 2015] Cal.4th*, the California Supreme Court ruled that:

> [Lead] agencies . . . generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment—and not the environment's impact on the project—that compels an evaluation of how future residents or users could be affected by exacerbated conditions.

The extent to which the proposed project would exacerbate (i.e., worsen) existing and/or projected damage to the environment, including damage to existing structures, public access and recreational facilities, and coastal resources due to sea-level rise, is analyzed herein. An analysis of how sea-level rise is projected to affect the project is included in Section 4.9, *Land Use and Planning*.

Projected sea-level rise, as an effect of climate change, is expected to increase the number of areas that experience coastal flooding along San Diego Bay. Coastal and low-lying areas, such as the project site, are particularly vulnerable to future sea-level rise. More specifically, sea-level rise is a concern for the future, particularly in combination with future storm events and coastal flooding. When 100-year floodflows coincide with high tides, on top of future sea-level rise, the risk of flooding in the project vicinity increases. Historically, in San Diego, the mean sea-level trend was 2.19 millimeters per year, with a 95% confidence interval of +/- 0.18 millimeter per year, based on monthly mean sea-level data from 1906 to 2018, which is equivalent to a change of 0.72 foot in 100 years, as shown in Figure 4.6-1.

Figure 4.6-1. Historical Relative Sea-Level Trend



Source: National Oceanic and Atmospheric Association 2019.

Sea-level rise is anticipated to accelerate over the next century. The 2017 OPC report *Rising Seas in California* (Griggs et al. 2017), which was used in the CCC's *Sea-Level Rise Policy Guidance* (CCC 2018), projects sea-level rise in San Diego to be 0.4 to 1.1 feet by 2030, 0.7 to 2.8 feet by 2050, and 1.1 to 10.2 feet by 2100, although the outer years are hard to predict with scientific certainty.

Existing Structures

Existing structures within the project area that are projected to be affected by sea-level rise include the Pepper Park comfort stations and the Aquatic Center. These impacts would occur irrespective of construction of the project. However, expansion and potential reconfiguration of Pepper Park will provide an opportunity to alleviate some concerns regarding sea-level rise (see Section 4.9, *Land Use and Planning*).

Public Access and Recreation

The current public access and recreation areas that are projected to be affected by temporary and permanent future flooding include Pepper Park (including the fishing pier and boat launch) and the jetty (south of the Pier 32 Marina). These impacts would occur irrespective of the construction of the project. However, expansion and potential reconfiguration of Pepper Park, as well as the modifications to the jetty to accommodate the proposed modular cabins and floating dock, will provide an opportunity to alleviate some concerns regarding sea-level rise (see Section 4.9, *Land Use and Planning*).

Coastal Habitats

Paradise Marsh is inherently low lying and, because of sea-level rise, may transition from salt marsh to eelgrass over time. This transition would occur irrespective of construction of the project. The Balanced Plan is anticipated to alleviate some of these impacts by providing a 100-foot habitat buffer from the delineated wetlands west of the Wildlife Refuge (Paradise Marsh) and a 200-foot building setback from the western edge of the Wildlife Refuge. It would also designate 2.57 acres of vacant land adjacent to the Wildlife Refuge as Open Space. In addition, vehicular parking and low-

impact non-motorized uses such as public access trails and bike paths could be located between the habitat buffer and building setback, which may act as an additional buffer.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not exacerbate any existing and/or projected damage to the environment, including damage to existing structures, public access and recreational facilities, and coastal resources due to projected climate change effects, including sea-level rise.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Impacts would be less than significant.

Section 4.7
Hazards and Hazardous Materials

4.7.1 Overview

This section describes the existing conditions and applicable laws and regulations for hazards and hazardous materials within the proposed project area. This section also provides an analysis of the proposed project's potential to (1) create a significant hazard to the public or environment, (2) emit hazardous emissions within one-quarter mile of an existing or proposed school, (3) be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, (4) be located within an airport land use plan and result in a safety hazard for people residing or working in the project area, and (5) interfere with an adopted emergency response plan. The analysis and conclusions regarding air pollutants are discussed in Section 4.2, *Air Quality and Health Risk*, and water pollutants are discussed in Section 4.8, *Hydrology and Water Quality*, and are not covered in this section.

Information on hazards and hazardous materials in this section is summarized from the following reports.

- *Limited Phase II Site Assessment, National City Marina District, Balanced Land Use Plan Predesign/Design; National City, California 91950.* (Leighton and Associates, Inc. 2018).
- *Revised Corrective Action Completion Report* (Geosyntec 2012).

Table 4.7-1 summarizes the significant impacts and mitigation measures discussed in Section 4.7.4.3, *Project Impacts and Mitigation*.

Table 4.7-1. Summary of Significant Hazards and Hazardous Materials Impacts and Mitigation Measures

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-HAZ-1: Residual Soil Contamination (City Program – Development Component)	**MM-HAZ-1:** Prepare and Implement a Soil Management Plan (City Program – Development Component) **MM-HAZ-2:** Prepare and Implement a Monitoring and Reporting Program (City Program – Development Component) **MM-HAZ-3:** Prepare and Submit a Project Closeout Report (City Program –	Less than Significant	Compliance with a Soil Management Plan and Worker Health and Safety Program—which includes measures to sample, characterize, and dispose of contaminants and monitor the safety of site workers and the community—would ensure the proper handling and disposal of contaminated soil during construction activities. In addition, preparation and submittal of a Monitoring and Reporting Program and a Project Closeout Report would ensure that the Soil Management

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
	Development Component)		Plan is properly implemented and documented.
Impact-HAZ-2: Residual Soil Contamination (Pasha Road Closures Component)	**MM-HAZ-4:** Prepare and Implement a Soil Management Plan (Pasha Road Closures Component) **MM-HAZ-5:** Prepare and Implement a Monitoring and Reporting Program (Pasha Road Closures Component) **MM-HAZ-6:** Prepare and Submit a Project Closeout Report (Pasha Road Closures Component)	Less than Significant	The Soil Management Plan, Monitoring and Reporting Program, and Project Closeout Report would ensure there would be safeguards during ground-disturbing construction activities that protect against upset and accidents.
Impact-HAZ-3: Conflict with Conditions of Regulatory Closure (City Program – Development Component)	**MM-HAZ-7**: Coordinate with the DEH (City Program – Development Component)	Less than Significant	Coordination with the Department of Environmental Health (DEH) would ensure the properties are remediated to acceptable levels prior to use.
Impact-HAZ-4: Inadequate Emergency Access from Temporary Road Closures During Project Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, City Program – Development Component)	**MM-TRA-3:** Implement Traffic Control Measures During Construction**.** **MM-HAZ-8:** Maintain Emergency Access Road During Construction. **MM-HAZ-10:** Coordination with the City Fire Marshal. (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, City Program – Development Component)	Less than Significant	Implementation of a traffic control plan would reduce impacts due to construction-related traffic and road closures, and would ensure access for emergency response vehicles. A temporary emergency access road would be maintained during construction of the Pasha Road Closures Component, ensuring access for emergency vehicles. Coordination with the City Fire Marshal would ensure the City Program – Development Component maintains adequate emergency vehicle access.
Impact-HAZ-5: Inadequate Emergency Access from the Closure of Tidelands Avenue	**MM-HAZ-9:** Coordinate with the City Fire Marshal (Pasha Road Closures Component)	Less than Significant	Coordination with the City Fire Marshal would ensure the Pasha Road Closures Component maintains adequate emergency vehicle access.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
During Operation (Pasha Road Closures Component).			
Impact-HAZ-6: Inadequate Emergency Access from the Closure of Bay Marina Drive to Through-Traffic (City Program – Development Component).	**MM-HAZ-10:** Coordinate with the City Fire Marshal (City Program – Development Component)	Less than Significant	Coordination with the City Fire Marshal would ensure the City Program – Development Component maintains adequate emergency vehicle access.
Impact-HAZ-7: Inadequate Emergency Access from Marina Way Realignment (Balanced Plan or GB Capital Component).	**MM-HAZ-11:** Manage Marina Way Realignment Conditions (Balanced Plan or GB Capital Component)	Less than Significant	Coordination with the City Fire Marshal would ensure unapproved traffic calming devices would not be installed.

4.7.2 Existing Conditions

The proposed project has several components located in the coastal area north of Sweetwater Channel, in between San Diego Bay and I-5. Development in this area remained concentrated north of Bay Marina Drive from the late nineteenth century into the 1950s. The California Southern Railroad (later the Santa Fe Railway) and the Coronado Belt Line were constructed in the 1880s, and the Santa Fe Depot, located on the westernmost parcel within the City Program – Development Component, was constructed in 1899. The railways and associated businesses drew more industrial development to the area from the early 1900s until the 1960s.

The majority of the GB Capital Component, the Pasha Components, Pepper Park, and portions of the Bayshore Bikeway Component are located on filled historic wetlands. The fill of Paradise Marsh and San Diego Bay occurred between 1941 and 1968, which was partially connected to the United States Navy ship channel-dredging program. In 1966, a bond was issued for the construction of the first portion of the National City Marine Terminal, which would expand over the next several decades, and eventually come to include portions of the southerly project site. By 1972, Pepper Park and its adjacent parking lot had been developed, and, in 1988, the District completed the expansion and improvement of Pepper Park along Sweetwater Channel.

The seven parcels that make up the City Program – Development Component were the sites of a variety of historical manufacturing facilities. The parcels between Cleveland Avenue and Harrison Avenue (now Marina Way) were historically occupied in the early 1900s by an olive oil processing

facility (City Parcel #2), the offices of the San Diego Land and Water Company (City Parcel #2), and two dwellings (City Parcel #6). By 1911, a machine shop replaced the former olive oil facility, and by 1926 a flour and cereal warehouse and mattress stuffing factory were constructed on City Parcels #3 and #4, respectively. After 1926, there was a foundry (CDC Foundry) and a transformer production facility (Electro Mold & Casting) on the western side (City Parcels #3 and #4, respectively), and a dyeing and tanning facility on the eastern side (City Parcel #5). City Parcel #6 was occupied by a metals recycling facility. These buildings existed into the 1970s. By 2004, the western property was occupied by MSI, a sign fabrication and painting facility, and a wood shop. Structures associated with the foundry had been removed from the southern portion of the site. By 2010, structures and materials associated with past uses were removed from the site, leaving a concrete foundation. In 2012, remedial activities involved the demolition of concrete foundation material that was visible or encountered during remediation activities (Geosyntec 2012). City parcels 1–5 are currently vacant, and some foundation or concrete material may remain onsite. The parcel between Cleveland Avenue and the I-5 off ramp (City Parcel #6) was occupied by the former Ace Metals Recycling, Inc. facility from 1958 to approximately 2000 (DEH 1997). Structures were removed between 2000 and 2001, and City Parcel #6 currently contains overgrown vegetation and remnants of concrete foundation. City Parcel #7 is the historical location of the National City Railroad Depot, constructed by the California Southern Railroad (later the Santa Fe Railway) in 1899. The National City Railroad Depot was home to the San Diego Electric Railway, a streetcar system, from the late 1800s to 1949. City Parcel #7 is currently the location of the National City Depot Museum, which maintains the original building and railroad tracks.

The Balanced Plan area has been occupied by fill land since between the 1940s and the 1960s when Paradise Marsh and San Diego Bay were filled. A channel traversed the area until the 1970s when Sweetwater Channel was constructed, at which time Pepper Park was also created. Throughout the 1970s and 1980s the Balanced Plan area was occupied by parking lots, warehouses, and other structures in support of marine terminal activity.

Most of the GB Capital Component area was occupied by fill land as early as the 1940s until 2003, when the construction of the present marina commenced. A channel associated with Paradise Marsh crossed the northern portion of the GB Capital Component (Parcel B6) from approximately the 1960s to the 1970s. Sweetwater Channel was constructed in the 1970s, and a previous channel was filled in. The GB Capital Component area remained vacant until the marina was developed in early 2000s when the Pier 32 Marina was developed north of Sweetwater Channel between 2003 and 2009.

The areas that make up the Pasha Rail Improvement Component and Pasha Road Closures Component were developed with marine terminal facilities in the 1960s and 1970s. Parking lots similar to the current layout on the project site were developed in the 1980s, and Pasha started importing cars at the terminal in 1990. In 2002, the northwestern portion of the terminal wharf was extended.

4.7.2.1 Operational Hazardous Materials

Currently, Pasha Automotive Services is listed as a Resource Conservation and Recovery Act (RCRA)-regulated facility, according to the RCRA Info Web Database (EPA 2019). The Pasha facility on the marine terminal is identified by the U.S. Environmental Protection Agency (EPA) ID CAL000427970, but the type or quantity of hazardous materials handled by the facility is not specified by the database.

4.7.2.2 Hazardous Materials Database Results

Database searches were conducted using the State Water Resources Control Board's (SWRCB's) GeoTracker and Department of Toxic Substances Control's (DTSC's) EnviroStor databases. The search was performed using a 0.25-mile radius around the project site where ground disturbance is proposed or may occur. This includes the City Program – Development Component, the Pasha Rail Improvement Component, the Pasha Road Closures Component, the GB Capital Component, and the Bayshore Bikeway Component.

Onsite Hazardous Sites

Results of the database searches, along with documentation provided by the City and the District, indicate there are several former and current listed sites that are located on the project site. Table 4.7-2 lists these sites, and Figure 4.7-1 shows their locations.

City Program – Development Component

There are several unauthorized release cases located in the City Program – Development Component. On December 7, 2000, the California Environmental Protection Agency (CalEPA) Site Designation Committee passed Resolution 00-06, which established the County of San Diego, Department of Environmental Health (DEH) as the administering agency for the hazardous release site that encompasses the parcels with APNs 559-118-02, 559-160-11, 559-117-04, 559-117-05, 559-117-06, 559-117-07, 559-117-12, 559-117-16, and 559-117-17. APNs 559-117-04, -05, -06, -07, and -12 are associated with City Parcels #1–5, and APNs 559-117-16 and -17 are located adjacently south of City Parcel #5 within the right-of-way of Bay Marina Drive (24th Street). Reportedly these two APNs (559-117-16 and -17) were historically part of the city block containing City Parcels #1–5 until 24th Street (now Bay Marina Drive) was widened and paved at least 36 years ago (Geosyntec 2012). APNs 559-118-02 and 559-160-11 are associated with City Parcel #6. There are no unauthorized release cases associated with City Parcel #7. Table 4.7-3 lists the City Parcels and the corresponding APNs and unauthorized release cases. A summary of the regulatory cases associated with Resolution 00-06 is based on the *Revised Corrective Action Completion Report* prepared by Geosyntec Consultants (Geosyntec) in April 2012, and the *Revised Corrective Action Completion Report* prepared by Geosyntec in February 2013, available on the SWRCB GeoTracker database.

Voluntary Action Program (VAP) Case #H23772-001 was originally opened for a case associated with the historic uses of the city block comprised by City Parcels #1–6 as well as six parcels to the south of the City Program parcels on the southern side of Bay Marina Drive (identified as "C&M Meat Packing" on the Geotracker database), but was later broken-up and reassigned as cases #H23772-002 through #H23772-006 for specific parcels. Case #H23772-001 was administratively closed in 2013. Cases #H23772-004, -005, and -006 are described below and cover the cases on parcels with APNs 559-117-04, -05, -06, -07, and -12, 559-117-16 and -17, 559-118-02 and 559-160-11(City Parcels #1–6). Cases #H23772-002 and -003 are described under *Offsite Hazardous Sites* below.

VAP Case #H23772-004 is associated with a hazardous remediation on APN 559-118-02 (City Parcel #6, addressed as 720 West 23rd Street), which was included as part of the remediation area established by Resolution No. 00-06 in 2001. The features of concern for this case were discoloration of surface soil and the presence of a hydraulic baler, a hydraulic lift, and a scale due to the historic use of the property as Ace Metals Recycling and parking for an automotive dealership. Hydrocarbons and heavy metals were identified as the contaminants of concern. Remedial actions

included removal of underground features such as a hydraulic lift and vault, excavation of contaminated soils, and groundwater monitoring. Excavated soil was stockpiled on site, approximately 1,200 cubic yards of excavated soil were disposed of off site, and approximately 430 cubic yards of excavated soils were treated on site and then disposed of off site. Groundwater monitoring data from two onsite wells showed no detections of total petroleum hydrocarbons (TPH). Based on post-remediation testing, no further action was recommended. DEH closed the site in 2009 based on the proposed commercial use.

VAP Case #H23772-005 consisted of the following parcels: APNs 559-117-04, 559-117-05, 559-117-06, 559-117-07, 559-117-12, 559-117-16, and 559-117-17, which together comprise the city block containing City Parcels #1–5, plus the two adjacent parcels that are within the right-of-way of Bay Marina Drive (559-117-16 and 559-117-17). This case is identified as "C&M Meat Packing" although it is associated with the historic uses of a foundry, transformer production facility, and others. The following bullet points provide a summary of the investigation and remediation that has occurred related to this case:

- In 1995, Leighton and Associates conducted an Environmental Site Assessment (ESA) on parcel APN 599-117-07. Three groundwater monitoring wells were installed. Soil and groundwater samples detected levels of contaminants above the CalEPA Maximum Contaminant Level (MCL) (Geosyntec 2012).
- Ninyo & Moore conducted a Phase I ESA for the parcels with APNs 559-117-04, 559-117-05, 559-117-06, and 5590117-12 in 1997, and a groundwater-monitoring event for the parcel with APN 559-117-07 in 1999. Groundwater samples detected one out of four contaminants tested that exceeded the corresponding MCL.
- SECOR conducted a subsurface soil investigation for the parcels with APNs 559-117-06, 559-117-07, 559-117-04, and 559-117-05 in 2004. Slightly elevated levels of mercury, copper, and volatile organic compounds (VOCs) were detected in the soil samples; however, they were below EPA Region 9 Industrial Preliminary Remediation Goals. Groundwater samples were also taken using the previously installed groundwater monitoring wells. Groundwater samples detected elevated levels of 1,2-DCA. However it was noted 1,2-DCA was not detected in any soil samples; thus it could be from an offsite, upgradient source.
- RORE performed an ESA on the parcels with APNs 559-117-04, 559-117-05, and 559-117-12. Soil sampling was performed in areas that had, and had not, been previously investigated. Soil samples detected elevated levels of arsenic, and levels of TPH.
- Geosyntec prepared a Work Plan for remedial activities at the parcels with APNs 559-117-04, 559-117-05, 559-117-06, 559-117-07, 559-117-12, 559-117-16, and 559-117-17 in 2010. Slab demolition and impacted soil excavation were performed in January 2011. A total of 375 tons of impacted soil was excavated and transported off site to be disposed of. Confirmation soil sampling indicated metals and TPH levels were below action levels. Remnants of the former building foundations in the northern portion of the site were removed in January 2011. Approximately 74 tons of demolished concrete were removed and disposed of off site.
- There was no evidence that the parcels with APNs 559-117-16 and 559-117-17 were impacted by historical operations at the adjacent parcels because these two parcels have been located within the public right-of-way and paved with asphalt concrete for approximately 40 years.

- Remedial activities were previously completed for APNs 559-160-11 and 559-118-02. DEH provided a letter certifying completion of remediation for APN 559-160-11 on July 31, 2007, and a letter for APN 559-118-02 on June 9, 2009.
- Because the cleanup objectives for the site had been achieved, it was determined the site did not pose further risk for future use as a commercial/industrial capacity, regulatory closure of VAP Case #H23772-005 was requested, and the case was closed as of October 5, 2018.

VAP Case #H23772-006 is located at 830 West 23rd Street, which is associated with APN 559-117-06 (City Parcel #3) and is included in the investigation of VAP Case #H23772-005. This case is still open but has been recommended to be closed.

VAP Case #H08326-001 was originally opened for APN 559-117-07 (City Parcel #4) that was later included in the site designation case #H23772-005 (described above); thus, DEH administratively closed Case #H08326-001 in February 2013.

VAP Case #H36620-001 is associated with the former Ace Metals Recycling, Inc. facility at 720 West 23rd Street, APN 559-18-02 (City Parcel #6). Case #H36620-001 consisted of a Phase II investigation of subsurface soil contamination, which determined remediation was not necessary, under the condition that future uses of the property would be industrial uses and the pavement at the site would remain in place. The case was closed in 1997.

VAP Case #H26533-001 is located at City Parcel #6 (APN 559-18-02) with the address 517 West 24th Street. In 1996 three concrete containers were removed and soil borings were installed to investigate subsurface conditions. Levels of TPH and TRPH were detected below cleanup levels. The case was closed in 1996.

Pasha Road Closures Component

Case #DEH2017-LSAM-000428 (Bayshore Bikeway Segments 4B & [Interim] 5) is an open Cleanup Program Site located along Tidelands Avenue in between 32nd Street and West 28th Street. During implementation of the interim Bayshore Bikeway route along Tidelands Avenue, a subsurface investigation found the route to be contaminated with TPH, Title 22 metals, organochlorine pesticides, polychlorinated biphenyls (PCBs), and polynuclear aromatic hydrocarbons (PAHs). A Soil Management Plan was developed to guide the handling of contaminated and hazardous materials during excavation. While the construction of the interim bike route has been completed, the site is still open.

Pasha Rail Improvement Component

A limited Phase II ESA was performed by Leighton and Associates, Inc. (Leighton) in 2018, which conducted 12 direct push soil borings within the Pasha Rail Improvement Component of the project site. Twenty-four soil samples were collected and analyzed for potential contaminants. The results of the laboratory analysis indicated one soil sample in the northwestern portion of the Pasha Rail Improvement Component (Lot K) had a concentration of TPH above Environmental Screening Levels (ESLs). The export of soil in the upper 5 to 10 feet in the area around the soil sample may be considered a regulated waste. No soil samples contained concentrations of VOCs above the laboratory detection limits. The results of the PAHs and PCBs analyses indicated residual concentrations of PAHs and PCBs are present in soils in the northeastern portion of the site, but these concentrations are below the Regional Screening Levels (RSLs) for industrial soil. Due to

detected concentrations in the upper 5 feet of soil in this portion of the project site, it may be considered a regulated waste if exported from the project site. The Title 22 metals analysis indicated concentrations of Title 22 metals are below RSLs for industrial soil, and in the case of arsenic, below the southern California background concentration. The Phase II ESA concluded with the recommendation of a "Site-Specific Soil Management Plan" for site redevelopment (Leighton 2018).

Offsite Hazardous Sites

Table 4.7-3 lists sites that are within a one-eighth mile of the project site, and Figure 4.7-2 shows the location of the offsite hazardous materials sites. The following discussion describes relevant offsite hazardous materials sites in close proximity (less than 50 feet) to project components.

City Program – Development Component

VAP Cases #H23772-002 and -003 are associated with the parcels located south of the City Program – Development Component and north of Paradise Marsh. These two cases are associated with the Harbor District Development Area initiated by the Community Development Commission of National City. Case #H23772-002, associated with APNs 599-117-14, 559-117-15, 559-160-03, 559-160-03, 559-160-11, and 559-160-21, was opened in 2001 to assess the presence of contaminants of concern related to a former burn dump area (former Davies Dump). Remediation occurred in the form of excavation at the site, the installation of a pavement "cap," and the recording of a Deed Restriction of the Property with the County of San Diego and the Community Development Commission of National City. Based on the GeoTracker database, the case was closed as of August 2007.

VAP Case #H23772-003 was opened in 2003 when contaminated soil was discovered during the removal of an underground storage tank at APN 559-160-03. Contaminated soil was left in place, but it was determined the residual contamination was limited and did not pose a significant risk to the environment or public health. DEH closed the case in August 2007.

Underground Storage Tank (UST) Case #H01953-001 was associated with the removal of two USTs in 1995 at the former Cuyamaca Meats, Inc. facility. The exact location of the USTs was not available. Impacted soils were excavated and a groundwater monitoring well was installed and sampling was conducted for a year. Monitoring results were under maximum contaminant levels and DEH determined no further action was required and issued a closure letter in 1999.

Pasha Rail Improvement Component

Two closed cases are located north of the eastern portion of the proposed rail route where it would cross the existing Tidelands Avenue (see Figure 3-19 in Chapter 3, *Project Description*). Both cases are associated with the facility at 3040 Tidelands Avenue, the location of the former Jamac – Dixieline lumberyard. The leaking underground storage tank (LUST) Case #H04735-001 was associated with a release from holes in gasoline and diesel USTs discovered on the property on April 6, 1988. Twenty-three groundwater monitoring wells were installed on site. Free product, contaminated soil, and groundwater were removed, treated, and disposed of. Also identified were high levels of chlorinated chemicals in the groundwater on the north side of the site, which were not associated with this leak. This became Case #H04735-002, and Case #H04735-001 was closed on April 6, 1998. The chlorinated chemicals contamination is inferred to have originated from illegal disposal of waste solvents to a storm drain inlet or manhole in Tidelands Avenue sometime prior to

the investigation on the Jamac – Dixieline Lumber property. Chemicals are thought to have leaked through a joint in the drainpipe. It is anticipated that natural attenuation will resolve the contamination issue. The case was closed on September 18, 2003, because "there is no risk, the residual soil contamination is too small to quantify, and the area with contaminated groundwater is on the order of 100 feet in diameter" (DEH 2003).

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Legend

Mean High Tide Line

Balanced Plan

GB Capital Component

FPR Area

Marine-Related Industrial

Pepper Park

Tidelands Ave South of 32nd St

Pasha Rail Improvement Component

Pasha Road Closures Component

Bayshore Bikeway Component

Route 1

Route 2

Route 3

City Program - Development Component

Chula Vista City Limit

Former Hazardous Materials Site

Former Hazardous Materials Site

#H Case Open

#H Case Closed

City Parcel # - Address

#1 - 0 Cleveland Ave

#2 - 2300 Cleveland Ave

#3 - 800 23rd St

#4 - 835 24th St

#5 - 801 Bay Marina Drive

#6 - 720 23rd St

#7 - 900 23rd St

#H23772-005;
#H26533-001;
#H23772-001;
#H23772-006;
#H08326-001

#H36620-001;
#H23772-004

Bayshore Bikeway Segments 4B & 5

0 250 500 Feet

1 in = 705 ft

N

Source: ICF; SDUPD; SanGIS 2019

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Figure 4.7-1
Locations of Hazardous Materials Sites - Onsite
National City Bayfront Projects & Plan Amendments EIR

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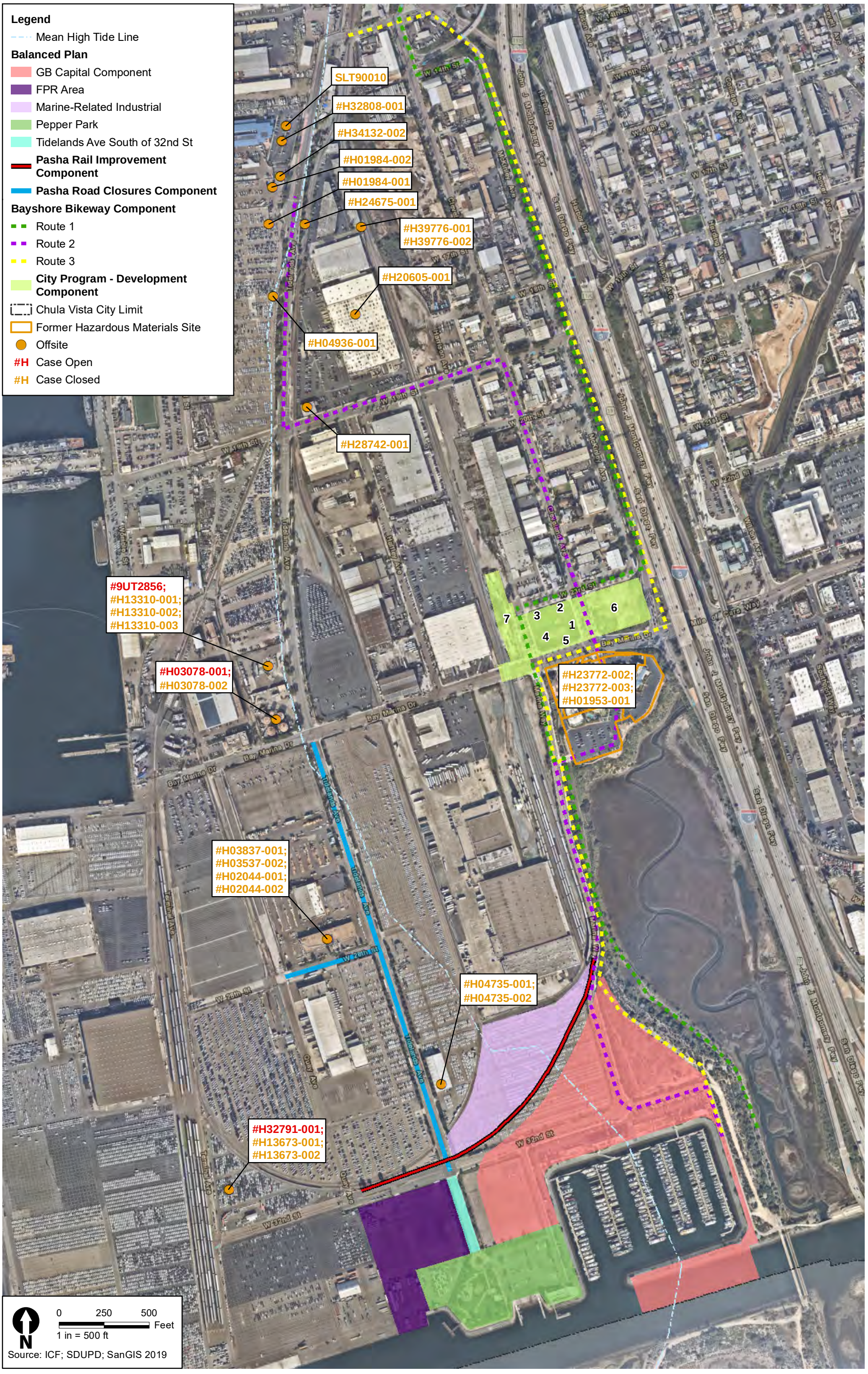

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Figure 4.7-2
Locations of Former Hazardous Materials Sites - Offsite
National City Bayfront Projects & Plan Amendments EIR

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Table 4.7-2. Onsite Contamination Sites Listed on a Hazardous Materials Database

Site Name	City Parcel #	APN(s)	Listed Address/ Component	Database Listings	Site Summary	Status
C&M Meat Packing (Case #H23772-005)	#1–5	559-117-04, -05, -06, -07, -12, -16, and -17	2300 Cleveland Avenue City Program – Development Component	GeoTracker, Cleanup Program Site	This is a VAP case that addresses soil and groundwater contamination due to historical uses (formerly Case #H08326-001). Site investigation has occurred since 1994, and contaminated soils were excavated in 2011. DEH has determined the cleanup has been satisfactorily completed, and the site was closed as of October 5, 2018.	Closed
C & M Meat Packing (Sweetwater Union High School District Site) (Case #H26533-001)	#6	559-18-02	2501 Cleveland Avenue City Program – Development Component	GeoTracker, Cleanup Program Site	This case is located at City Parcel #6 (APN 559-18-02). This case was closed as of June 29, 1996.	Closed
C & M Meat Packing (Case #H23772-001)	#1–5	559-117-04, -05, -06, -07, -12, -16, and -17	2300 Cleveland Avenue City Program – Development Component	GeoTracker, Cleanup Program Site	This site is related to the previously listed site, C&M Meat Packing (Case #H23772-005). Case #H23772-001 was originally opened for several parcels both north and south of Bay Marina Drive, then subsequently Cases H23772-002 through H23772-006 were opened for various parcels within City Parcels #1–6. The Closure Letter for this site was issued on February 20, 2013, for administrative closure.	Closed
C&M Meat Packing (Former Ace Metals Property (Case #H23772-004)	#6	559-18-02	720 West 23rd Street City Program – Development Component	GeoTracker, Cleanup Program Site	This property is the former Ace Metals Recycling property, with the APN 559-118-02. A property Mitigation Plan was approved in 2006, and a Property Mitigation Report was submitted in March 2007. A certification of closure was documented on June 17, 2009.	Closed
C&M Meat Packing (Case #H23772-006)	#15	559-117-04, -05, -06, -07, -12, -16, and -17	830 West 23rd Street City Program – Development Component	GeoTracker, Cleanup Program Site	This site is related to the previously listed site, C&M Meat Packing (Case #H23772-005). This case is still open, with verification monitoring as of November 14, 2007. A notice dated March 2015 documented on the GeoTracker database indicated the oversight agency recommended the case be closed.	Open

Site Name	City Parcel #	APN(s)	Listed Address/ Component	Database Listings	Site Summary	Status
Ace Metals Recycling (Case #H36620-001)	#6	559-18-02	720 West 23rd Street City Program – Development Component	GeoTracker, Cleanup Program Site	This site contained contaminated soils due to operation as a metals recycling yard since 1958. A Phase II investigation concluded shallow subsurface soils were contaminated with petroleum hydrocarbons and lead, but contamination was expected to be limited in extent and depth, and would not represent a risk to groundwater or onsite workers if uses remained industrial and pavement remained in place. The closure summary was dated February 25, 1997.	Closed
Electro Mold & Casting (Case #H08326-001)	#4	559-117-07	835 Bay Marina Drive City Program – Development Component	GeoTracker, Cleanup Program Site	This case was originally opened for APN 559-117-07 and was later included in the site designation case #H23772-005 (described above). This case was administratively closed on February 26, 2013.	Closed
SANDAG's Bayshore Bikeway Segments 4B & [Interim] 5 (Case #DEH2017-LSAM-000428)	N/A	N/A	Tidelands Avenue Pasha Road Closure Component	GeoTracker, Cleanup Program Site	A subsurface investigation found the route to be contaminated with TPH, Title 22 metals, organochlorine pesticides, PCBs, and PAHs. A Soil Management Plan has been developed to guide the handling of contaminated and hazardous materials during excavation. The site is still open.	Open

Table 4.7-3. Offsite Contamination Sites within 0.25 Mile of the Project Listed on a Hazardous Materials Database

Site	Listed Address	Distance from the Project	Database Listings	Site Summary	Status
Former National City Dump (AKA Davies Dump) (Case #H23772-002)	2501 Cleveland Avenue	Approx. 80 feet south of City Program – Development Component and approx. 30 feet of Bayshore Bikeway Component Routes 2 and 3	GeoTracker, Cleanup Program Site	This case was opened in 2001 associated with remediation of burn-ash contamination from the historic Davis Dump. Remediation and monitoring was completed, and the case was closed in 2007.	Closed
Western Lumber Co (#H03837-001)	2745 Tidelands Avenue	Approximately 100 feet west of Pasha Road Closures Component	GeoTracker, Cleanup Program Site	Case was closed as of December 12, 1988; no other information was provided.	Closed
Western Lumber Co (also called Burlington Northern and Santa Fe Railroad Property) (#H03837-002)	2745 Tidelands Avenue	Approximately 100 feet west of Pasha Road Closures Component	GeoTracker, Cleanup Program Site	The case was associated with an unauthorized release from a UST and potential impact from adjacent site operations. No further action was required by the DEH and the case was closed in 2000.	Closed
San Diego Unified Port District (Case #H04735-001)	3040 Tidelands Avenue	Approximately 200 feet north of Pasha Rail Improvement Component	GeoTracker, LUST Cleanup Site	A release from holes in gasoline and diesel USTs was discovered on the Jamac – Dixieline Lumber property on April 6, 1988 (Case #H04735-001), and 23 groundwater monitoring wells were installed on site. Free product, contaminated soil, and groundwater were removed, treated, and disposed of. Also identified were high levels of chlorinated chemicals in the groundwater on the north side of the site, which were not associated with this leak. This became Case #H04735-002, discussed below. The case was closed April 6, 1998.	Closed
San Diego Unified Port District (Case #H04735-002)	3040 Tidelands Avenue	Approximately 200 feet north of Pasha Rail Improvement Component	GeoTracker, Cleanup Program Site	Chlorinated chemicals were detected in the groundwater on site during the leaking USTs investigation (described above). The contamination is inferred to have originated from illegal disposal of waste solvents to a storm drain inlet or manhole in Tidelands Avenue sometime prior to the investigation on the Jamac – Dixieline Lumber property. Chemicals are thought to have leaked through a joint in the drainpipe. It is anticipated natural attenuation will resolve the contamination issue. DEH closed the case on September 18, 2003.	Closed

Site	Listed Address	Distance from the Project	Database Listings	Site Summary	Status
Fletcher Gen/ Sweetwater Facility (Case #H13673-001)	3040 Terminal Avenue	Approx. 0.12 mile west of Pasha Rail Improvement Component	GeoTracker, Cleanup Program Site	This case was opened as a complaint from the Inspections and Compliance unit after copper-slag sand blast waste was discovered on the property. It was transferred to the Regional Water Quality Control Board (RWQCB) in 1994. Based on email confirmation on July 11, 2013, the RWQCB has not taken action, and this case was closed to consolidate the cases for this site.	Closed
Fletcher Gen/ Sweetwater Facility (Case #H13673-002)	3040 Terminal Avenue	Approx. 0.12 mile west of Pasha Rail Improvement Component	GeoTracker, Cleanup Program Site	This case was also opened as a complaint from the Inspections and Compliance unit for hydrocarbon stained soil on the property (Solar Turbines Inc. at the time). Neither DEH nor RWQCB have taken action. The former building was removed and site graded to install a parking lot. The case was administratively closed on July 17, 2013.	Closed
Mariners Park (ITT Industries) (Case #H32791-001)	3040 Terminal Avenue	Approx. 0.12 mile west of Pasha Rail Improvement Component	GeoTracker, Cleanup Program Site	Investigation on the site began in 1998 into liquid phase chlorinated VOCs on the groundwater and chlorinated VOCs in soil and soil gas from former vapor degreasers. Monitoring wells were installed in 1998 and 1999. The most recent Status Report available on the GeoTracker website, dated August 7, 2017, indicates the work plan was approved on July 6, 2015, but has been delayed due to permitting proposed borings because the District has indicated the proposed work is not aggressive enough.	Open
Dixieline Lumber Co (Case #H02044-001)	1400 West 28th Street	Approx. 50 feet west and north of Pasha Road Closure Component	GeoTracker, LUST Cleanup Site	A LUST case was opened following discovery of contamination after removal of three USTs. Contaminated soil was excavated. The case was closed on February 14, 1996.	Closed
Dixieline Lumber Co (Case #H02044-002)	1400 West 28th Street	Approx. 50 feet west and north of Pasha Road Closure Component	GeoTracker, Cleanup Program Site	Historically, three USTs were removed in 1989, and gasoline, diesel, and waste oil soil contamination was identified. Soils were excavated and disposed of off site. Five groundwater monitoring wells were installed, but contamination was not detected. DEH closed this case in July 1990. A second case was opened to confirm the contamination has been remediated before transferal of the property to a new owner (the District). Soil and groundwater investigation determined contaminants were present below action levels, and no significant contamination issues were present on site. The case was closed in a letter dated May 31, 2012.	Closed

Site	Listed Address	Distance from the Project	Database Listings	Site Summary	Status
C&M Meat Packing (Case #H23772-003)	2501 Cleveland Avenue	Approx. 0.03 mile south of City Program – Development Component	GeoTracker, LUST Cleanup Site	A fuel oil UST was removed in 2003, and 72 cubic yards of soil were excavated from the UST site. Some contaminated soil was left on site. A closure letter was submitted on August 3, 2007.	Closed
Cuyamaca Meats, Inc. (Case #H01953-001)	2510 Cleveland Avenue	Approx. 100 feet south of City Program – Development Component	LUST Cleanup Site	This case was an investigation and remedial action for the removal of a 4,000-gallon diesel UST and a 1,000-gallon gasoline UST located at 2510 Cleveland Avenue. Approximately 200 cubic yards of impacted soil were removed and treated. No contaminated soil remained. Groundwater sampling was conducted for a year. The DEH determined no further action was necessary and closed the case in 1999.	Closed
Pepper Oil Company Inc. (Case #H03078-001)	2300 Tidelands Avenue	Approx. 300 feet north of Pasha Road Closure Component	LUST Cleanup Site	This case refers to a release from a 2,000-gallon UST that was removed in 1998. The case was put on low priority because DTSC is overseeing a closure of hazardous Waste Management Units at the Pepper Oil Company facility.	Open
Pepper Oil Company, Inc (Case #H03078-002)	2300 Tidelands Avenue	Approx. 300 feet north of Pasha Road Closure Component	LUST Cleanup Site	This case is related to the discovery of holes in a 550-gallon UST upon its removal and associated discolored soil. The excavation was backfilled. Releases #H03078-001 and H03078-002 were administratively consolidated and H03078-002 was administratively closed as of January 27, 2010.	Closed
SoCal Truck Stop (Case #H13310-001)	2250 Tidelands Avenue	Approx. 380 feet north of Pasha Road Closure Component	Cleanup Program Site	Case closed as of 12/29/1988. No other case information was available.	Closed
SoCal Truck Stop (Case #H13310-002)	2250 Tidelands Avenue	Approx. 380 feet north of Pasha Road Closure Component	Cleanup Program Site	Case closed as of 9/12/1994. No other case information was available.	Closed
SoCal Truck Stop (Case #H13310-003)	2250 Tidelands Avenue	Approx. 380 feet north of Pasha Road Closure Component	Cleanup Program Site	Case closed as of 7/1/1994. No other case information was available.	Closed
SoCal Truck Stop (Case #9UT2856)	2250 Tidelands Avenue	Approx. 380 feet north of Pasha Road Closure Component	LUST Cleanup Site	This case refers to stained soil that was observed during the removal of a 12,000 UST. Four borings and a recovery well for free product were installed in 1995. This case is associated with Case #H03078-001 Pepper Oil Company, as it is located on the Pepper Oil Company leasehold. Combined site investigations have been conducted under the Pepper Oil Closure Plan.	Open

Site	Listed Address	Distance from the Project	Database Listings	Site Summary	Status
NASSCO Old Site (Vacant Lot) (Case #H28742-001)	Tidelands Avenue and 19th Street	Approx. 50 feet north and east of Bayshore Bikeway Component Route 3	Cleanup Program Site	This case was closed as of August 12, 1993. No other site information was available.	Closed
Costco Wholesale Packaging (Case #H20605-001)	1001 West 19th Street	Approx. 100 feet north and east of Bayshore Bikeway Component Route 3	Cleanup Program Site	This case was closed as of April 7, 1987. No other site information was available.	Closed
Cole Industries (#H04936-001)	1640 Tidelands Avenue	Approx. 50 feet west of Bayshore Bikeway Component Route 3	Cleanup Program Site	This case was closed as of March 13, 1987. No other site information was available.	Closed
Whitaker Investment Corp. (Case #H24675-001)	1465 Tidelands Avenue	Approx. 50 feet east of Bayshore Bikeway Component Route 3	Cleanup Program Site	This case was closed as of December 9, 1992. No other site information was available.	Closed
Port of San Diego (#H01984-001)	1440 Tidelands Avenue	Approx. 50 feet west of Bayshore Bikeway Component Route 3	Cleanup Program Site	The case was opened in 1992 following a referral from the inspection's unit where copper slag sand blasting medium and oil were observed on the ground. The case was taken over by DTSC in 1995; therefore, the case was administratively closed with a letter on August 7, 2012.	Closed
Port of San Diego (Case #H01984-002)	1440 Tidelands Avenue	Approx. 50 feet west of Bayshore Bikeway Component Route 3	LUST Cleanup Site	This case refers to the removal of two USTs. "Ponded product" was observed in the excavation of tank #2. A sampling trench was excavated, and no product was observed but product was detected in the soil. A monitoring well was installed. No remediation occurred. The case was closed by closure letter on March 19, 1998.	Closed
San Diego Unified Port District #1 (Case #H34132-001)	1400 Tidelands Avenue	Approx. 50 feet west of Bayshore Bikeway Component Route 3	LUST Cleanup Site	This case is associated with two USTs removed from the site. Gasoline and diesel were observed to be released from one tank. No free product was found during groundwater monitoring. Contamination levels were below EPA standards for industrial sites. The case was closed by closure letter on November 5, 1996.	Closed
Tidelands Industrial Park (Case #H39776-001)	0 Tidelands Avenue	Approx. 200 feet east of northern portion of Bayshore Bikeway Component Route 3	Cleanup Program Site	This case was opened for 5 USTs that were removed from the site; three with property DEH documentation, and two others without proper documentation. There was also a former sump and dip tank removed from the site. Gasoline, diesel fuel, and motor oil were detected onsite; however, soil contamination was determined to be limited in extent, and contamination detected in groundwater was low in concentration. No further action was required and the case was closed on August 15, 2012.	Closed

Site	Listed Address	Distance from the Project	Database Listings	Site Summary	Status
Tidelands Industrial Park (Case #H39776-002)	0 Tidelands E	Approx. 200 feet east of northern portion of Bayshore Bikeway Component Route 3	LUST Cleanup Site	This case was opened due to data collected for Case #H39776-001 which indicated releases had occurred at two USTs identified as Tank #4 and Tank #5, Diesel fuel, motor oil, and gasoline were detected in soil near the former USTs. It was concluded the gasoline contamination was from an adjacent property to the north, and the diesel oil was limited in extent in the area of former UST #4. No further action was required, and the case was closed as of July 16, 2012.	Closed
Port District/Nelco (Case #H32808-001)	1420 Tidelands Avenue	Approx. 100 feet west of Bayshore Bikeway Component Route 3	Cleanup Program Site	This case was originally transferred to Region 9 on 11/10/1194. This case was closed by DEH on November 3, 2011.	Closed
Port District Property (Case #SLT90010)	1420 Tidelands Avenue	Approx. 100 feet west of Bayshore Bikeway Component Route 3	Cleanup Program Site	This case is associated with stained soil and hydrocarbon odor discovered on the property in 1990. Elevated levels of TPH and lead were detected in the soil. The case was transferred from DEH to Regional Water Quality Control Board in 1994. The case was closed by DEH in 2011.	Closed

4.7.2.3 Proximity to Schools

Kimball Elementary School (302 West 18th Street, National City, CA 91950) is approximately 0.34 mile northeast of the northern portion of the project site, and approximately 0.20 mile east of proposed Routes 1 and 3 of the Bayshore Bikeway. National School District Free Preschool (232 West 18th Street, National City, California 91950) is approximately 0.42 mile northeast of the northern portion of the project site, and is approximately 0.28 mile east of proposed Route 1 and 3 of the Bayshore Bikeway. Sweetwater High School (2900 Highland Avenue, National City, California 91950) is approximately 0.74 mile east of the northern portion of the project site. Other schools in the project vicinity include Olivewood Elementary School, which is approximately 0.84 mile east of the northern portion of the project site, and National City Middle School, approximately 0.73 mile east of the proposed Routes 1 and 3 of the Bayshore Bikeway Component.

4.7.2.4 Proximity to Airports and Airstrips

The closest airport to the proposed project site is Naval Air Station North Island (NASNI) located on Coronado Island, approximately 5.7 miles northwest of the northern portion of the project site. San Diego International Airport is approximately 6.5 miles northwest of the northern portion of the project site, and Naval Outlying Field Imperial Beach is 5.8 miles to the southwest of the southern portion of the project site.

The State of California requires that the San Diego County Regional Airport Authority Board, acting as the Airport Land Use Commission (ALUC), prepare an Airport Land Use Compatibility Plan (ALUCP) for each public-use airport and military air installation in San Diego County. An ALUCP addresses compatibility between airports and future land uses that surround them by addressing safety, noise, airspace protection, and overflight notification concerns to minimize the public's exposure to excessive safety hazards and noise within the airport influence area (AIA) for each airport. For military air installations, the state also requires that the ALUC prepare ALUCPs consistent with the Air Installation Compatible Use Zones study prepared by the military to help guide local governments in planning efforts.

The San Diego County Regional Airport Authority approved the ALUCP for NASNI on October 2, 2020. The proposed project site is located within the AIA and Airspace Protection Boundary for NASNI (San Diego County Regional Airport Authority 2020). Although the project is also located within the Overflight Notification Area for NASNI, as the proposed project does not include the construction of dwelling units, the Overflight Notification Area is not applicable to the proposed project. The local agency with discretionary authority (i.e., the District and the City, depending on which project component) must submit an application for a consistency determination to the ALUC for review prior to construction (San Diego County Regional Airport Authority 2020).

Because the proposed project is located within the NASNI ALUCP's Airspace Protection Boundary, the project site is subject to Federal Aviation Administration (FAA) Code of Federal Regulations (CFR) Title 14, Part 77 review for height. Additionally, the FAA may also require notification for structures or objects that may cause signal reception interference with navigational aids (NAVAIDS). FAA regulations require notification of proposed construction or alteration of objects exceeding certain heights or that could potentially interfere with NAVAIDS by filing Form 7460-1 "Notice of Proposed Construction or Alteration" with the FAA. This requirement applies to all proposed objects

including structures, antennas, trees, mobile objects, and temporary objects, such as construction cranes.

4.7.2.5 Emergency Response Plan

The County of San Diego's Multi-Jurisdictional Hazard Mitigation Plan (2010) includes National City and addresses the identification of, and management strategies for, hazardous conditions and events, including wildfire and structural fire, hazardous or nuclear materials release, and other anthropogenic hazards (City of National City 2012).

The City updated and adopted the Operational Area Emergency Operations Plan (EOP) in June 2010. The EOP is intended to help guide City officials during the response to natural and human-made disasters, and to provide resources, such as outside agencies, that can assist disaster response. The EOP identifies the City's Emergency Operations Center as the primary emergency management center for coordinating the emergency response, disseminating information, and communicating with the public.

The District has an agreement with private environmental services to provide on-call hazardous waste management and emergency response services within the District's jurisdiction. These services would include hazardous material spills clean-up and removal of unforeseen hazardous materials encountered during District or tenant-sponsored projects (District 2019).

4.7.3 Applicable Laws and Regulations

4.7.3.1 Federal

Federal Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program, which is administered by EPA, to regulate the generation, transport, treatment, storage, and disposal of hazardous waste. Under RCRA regulations, hazardous wastes must be tracked from the time of generation to the point of disposal. The RCRA program also establishes standards for hazardous waste treatment, storage, and disposal units, which are intended to have hazardous wastes managed in a manner that minimizes present and future threats to the environment and human health. At a minimum, each generator of hazardous waste must register and obtain a hazardous waste activity identification number. If hazardous wastes are stored for more than 90 days or treated or disposed of at a facility, any treatment, storage, or disposal unit must be permitted under the RCRA. The RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle to grave" system of regulating hazardous materials.

Department of Transportation Hazardous Materials Regulations

U.S. Department of Transportation (DOT) Hazardous Materials Regulations (Code of Federal Regulations [CFR] Title 49, Parts 100–185) cover all aspects of hazardous materials packaging, handling, and transportation. Parts 107 (Hazard Materials Program), 130 (Oil Spill Prevention and

Response), 172 (Emergency Response), 173 (Packaging Requirements), 177 (Highway Transportation), 178 (Packaging Specifications), and 180 (Packaging Maintenance) would all apply to goods movement to and from the proposed project and/or surrounding uses.

Enforcement of these aforementioned DOT regulations is shared by each of the following administrations under delegations from the Secretary of the DOT.

- **Research and Special Programs Administration** is responsible for container manufacturers, reconditioners, and retesters and shares authority over shippers of hazardous materials.
- **Federal Highway Administration** enforces all regulations pertaining to motor carriers.
- **Federal Railroad Administration** enforces all regulations pertaining to rail carriers.
- **Federal Aviation Administration** enforces all regulations pertaining to air carriers.
- **U.S. Coast Guard (USCG)** enforces all regulations pertaining to shipments by water.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted in 1980 to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified. The corresponding regulation in 42 CFR 103 provides the general framework for response actions and managing hazardous waste.

Spill Prevention Control and Countermeasure Plans

Spill Prevention Control and Countermeasure (SPCC) plans (40 CFR 112.7) are required for facilities in which construction and removal operations involve oil in the vicinity of navigable waters or shorelines. SPCC plans ensure that facilities implement containment and other countermeasures that would prevent oil spills from reaching navigable waters. SPCC plans are regulations administered by EPA. Preparation of an SPCC plan is required for projects that meet three criteria: (1) the facility must be non-transportation-related, or, for construction, the construction operations involve storing, using, transferring, or otherwise handling oil; (2) the project must have an aggregate aboveground storage capacity greater than 1,320 gallons or completely buried storage capacity greater than 42,000 gallons; and (3) there must be a reasonable expectation of a discharge into or upon navigable waters of the United States or adjoining shorelines. For construction projects, for criterion (1), 40 CFR 112 describes the requirements for implementing SPCC plans. The following three areas should clearly be addressed in a SPCC plan.

- Operating procedures that prevent oil spills.
- Control measures installed to prevent a spill from reaching navigable waters.
- Countermeasures to contain, clean up, and mitigate the effects of an oil spill that reaches navigable waters.

United States Coast Guard Navigation and Navigable Waters, and Shipping

USCG, through Title 33 (Navigation and Navigable Waters) and Title 46 (Shipping) of the CFR, is the federal agency responsible for vessel inspection, marine terminal operations safety, coordination of federal responses to marine emergencies, enforcement of marine pollution statutes, marine safety (such as navigation aids), and operation of the National Response Center for spill response, and is the lead agency for offshore spill response. USCG implemented a revised vessel-boarding program in 1994 designed to identify and eliminate substandard ships from U.S. waters. The program pursues this goal by systematically targeting the relative risk of vessels and increasing the boarding frequency on high risk (potentially substandard) vessels. The relative risk of each vessel is determined through the use of a matrix that factors the flag of the vessel, owner, operator, classification society, vessel particulars, and violation history. Vessels are assigned a boarding priority from I to IV, with priority I vessels being the potentially highest risk and priority IV having relatively low risk.

Emergency Planning and Community Right-To-Know Act

The Emergency Planning and Community Right-to-Know Act (42 USC 11001 et seq.) was enacted by Congress as the national legislation on community safety in 1986, as Title III of the Superfund Amendments and Reauthorization Act. This law was designated to help local communities protect public health, safety, and the environment from chemical hazards. To implement this act, Congress required each state to appoint a State Emergency Response Commission. These commissions are required to divide their states into Emergency Planning Districts and to name a Local Emergency Planning Committee for each district. The act provides requirements for emergency release notification, chemical inventory reporting, and toxic release inventories for facilities that handle chemicals.

Occupational Safety and Health Act of 1970

The Occupational Safety and Health Act establishes the framework for safe and healthful working conditions for working men and women by authorizing enforcement of the standards developed under the act. The act also provides for training, outreach, education, and assistance related to establishing a safe working environment. Regulations defining safe standards have been developed for general industry, construction, maritime, recordkeeping, and agriculture. A major component of the act is the requirement that employers implement the Occupational Safety and Health Act Hazard Communication Standard to provide information to employees about the existence and potential risks of exposures to hazardous substances in the workplace. As part of the Hazard Communication Standard, employers must:

- Obtain material safety data sheets from chemical manufacturers that identify the types and handling requirements of hazardous materials used in given areas.
- Make the material safety data sheets available to their employees.
- Label chemical containers in the workplace.
- Develop and maintain a written hazard communication program.
- Develop and implement programs to train employees about hazardous materials.

Occupational Safety and Health Administration standards specific to hazardous materials are listed in 29 CFR 1910 Subpart H. Safety and health regulations pertaining to construction are listed in 29 CFR 1926 Subpart H.

Code of Federal Regulations Title 14, Part 77- Safe, Efficient Use, and Preservation of the Navigable Airspace

The Code of Federal Regulations (CFR) Title 14, Part 77, "Safe, Efficient Use and Preservation of the Navigable Airspace," establishes a notification requirement for objects affecting navigable airspace. CFR Title 14 Part 77 establishes standards for determining the potential hazardous effect of the proposed project on air navigation and operating procedures, identifying mitigating measures to enhance safe air navigation, and charting of new objects. Any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA:

- Any construction or alteration exceeding 200 feet above ground level.
- Any construction or alteration
    - Within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 feet.
    - Within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet.
    - Within 5,000 feet of a public use heliport which exceeds a 25:1 surface.
- Any highway, railroad or other traverse way whose prescribed adjusted height would exceed the above noted standards.
- When requested by the FAA.
- Any construction or alteration located on a public use airport or heliport regardless of height or location

Proponents proposing to construct or alter any of the above items must submit FAA form 7460-1, "Notice of Proposed Construction or Alteration" so the FAA can review the proposed action and make the appropriate determination.

4.7.3.2 State

Cortese List

California Government Code 65962.5 (commonly referred to as the *Cortese List*) includes hazardous waste facilities and sites listed by DTSC, Department of Health Services lists of contaminated drinking water wells, sites listed by the State Water Resources Control Board (SWRCB) as having underground storage tank leaks or a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites with a known migration of hazardous waste/material.

California Health and Safety Code (Hazardous Waste Control Act)

DTSC, a department of CalEPA, is the primary agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste

produced in California. DTSC regulates hazardous waste primarily under the authority of the federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Division 20, Chapter 6.5, of the California Health and Safety Code identifies hazardous waste control regulations pertaining to transportation, treatment, recycling, disposal, enforcement, and the permitting of hazardous waste. Division 20, Chapter 6.10, identifies regulations applicable to the cleanup of hazardous materials releases. Title 22, Division 4.5, contains environmental health standards for the management of hazardous waste, as well as standards for the identification of hazardous waste (Chapter 11) and standards that are applicable to transporters of hazardous waste (Chapter 13).

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

This program (California Health and Safety Code, Chapter 6.11, Sections 25404–25404.9) consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the environmental and emergency response programs and provides authority to the Certified Unified Program Agency (CUPA). The CUPA for San Diego County is the San Diego County Department of Environmental Health's Hazardous Materials Division (HMD), which has the responsibility and authority for implementing and enforcing the requirements listed in Chapter 6.5 (commencing with Section 25100), Chapter 6.67 (commencing with Section 25270), Chapter 6.7 (commencing with Section 25280), Chapter 6.95 (commencing with Section 25500), and Sections 25404.1 and 25404.2, including the following.

- **Aboveground Petroleum Storage Act Requirements for SPCC Plans.** Facilities with a single tank or cumulative aboveground storage capacities of 1,320 gallons or greater of petroleum-based liquid product (e.g., gasoline, diesel, lubricants) must develop an SPCC plan. An SPCC plan must be prepared in accordance with the oil pollution prevention guidelines in 40 CFR 112. This plan must describe the procedures, methods, and equipment needed at the facility to prevent discharges of petroleum from reaching navigable waters. A registered professional engineer must certify the SPCC plan, and a complete copy of the plan must be maintained on site.
- **California Accidental Release Prevention Program.** This program requires any business that handles more than threshold quantities of an extremely hazardous substance to develop a Risk Management Plan. The Risk Management Plan is implemented by the business to prevent or mitigate releases of regulated substances that could have offsite consequences through hazard identification, planning, source reduction, maintenance, training, and engineering controls.
- **Hazardous Materials Business Plan/Hazardous Materials Inventory Statements.** Hazardous Materials Business Plans contain basic information regarding the location, type, quantity, and health risks of hazardous materials and/or waste. Each business must prepare a Hazardous Material Business Plan if that business uses, handles, or stores a hazardous material and/or waste or an extremely hazardous material in quantities greater than or equal to the following.
    - 55 gallons for a liquid
    - 500 pounds for a solid
    - 200 cubic feet for any compressed gas
    - Threshold planning quantities of an extremely hazardous substance

- **Hazardous Waste Generator Program**. This program regulates businesses that generate any amount of a hazardous waste. Proper handling, recycling, treating, storing, and disposing of hazardous waste are key elements to this program.
- **Tiered Permitting Program**. This program regulates the onsite treatment of hazardous waste.
- **Underground Storage Tank Program.** This program regulates the construction, operation, repair, and removal of underground storage tanks that store hazardous materials and/or waste.

Hazardous Waste Control Act

DTSC is responsible for the enforcement of the Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), which creates the framework under which hazardous wastes are managed in California. The Hazardous Waste Control Act requires a hazardous waste generator that stores or accumulates hazardous waste for periods greater than 90 days at an onsite facility or for periods greater than 144 hours at an offsite or transfer facility, which treats or transports hazardous waste, to obtain a permit to conduct such activities. The law provides for the development of a state hazardous waste program that administers and implements the provisions of the federal RCRA for a cradle-to-grave waste management system in California. It also provides for the designation of California-only hazardous waste and development of standards that are equal to or, in some cases, more stringent than federal requirements, such as mandating source-reduction planning and regulating the number of types of waste and waste management activities that are not covered by federal law with the RCRA.

Environmental Health Standards for the Management of Hazardous Waste

These standards (California Code of Regulations, Title 22 [CA Title 22], Division 4.5, Section 66001 et seq.) establish requirements for the management and disposal of hazardous waste in accordance with the provisions of the state Hazardous Waste Control Act and federal RCRA.

California Code of Regulations, Title 8—Industrial Relations

Title 8 of the California Code of Regulations, Section 1532.1 is a rule developed by the federal Occupational Safety and Health Administration in 1993 and adopted by the State of California. This rule is comparable to the federal standards described above. Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The federal Occupational Safety and Health Administration and the California Division of Occupational Safety and Health Administration are responsible for ensuring worker safety in the workplace. The California Division of Occupational Safety and Health Administration assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. These standards would be applicable to both construction and operation of the proposed project. Title 8 includes regulations pertaining to hazard control (including administrative and engineering controls), hazardous chemical labeling and training requirements, hazardous exposure prevention, hazardous material management, and hazardous waste operations.

Title 8 also specifies requirements for the removal and disposal of asbestos-containing materials (ACMs). In addition to providing information regarding how to remove ACMs, specific regulations limit the time of exposure, regulate access to work areas, require demarcation of work areas, prohibit certain activities in the presence of ACM removal activities, require the use of respirators,

require monitoring of work conditions, require appropriate ventilation, and require qualified persons for ACM removal.

Title 8 also covers the removal of lead-based paint (LBP). Specific regulations cover the demolition of structures that contain LBP, the process associated with its removal or encapsulation; remediation of lead contamination; the transportation, disposal, storage, and containment of lead or materials containing lead; and maintenance operations associated with construction activities involving lead, such as LBP. Similar to ACM removal, LBP removal requires proper ventilation, respiratory protection, and qualified personnel.

California Labor Code (Division 5, Parts 1 and 7)

California Labor Code regulations ensure appropriate training regarding the use and handling of hazardous materials and the operation of equipment and machines that use, store, transport, or dispose of hazardous materials. Division 5, Part 1, Chapter 2.5, ensures that employees who handle hazardous materials are appropriately trained and informed about the materials. Division 5, Part 7, ensures that employees who work with volatile flammable liquids are outfitted with appropriate safety gear and clothing.

State Water Resources Control Board Construction General Permit (2009-0009-DWQ)

Construction activities that disturb 1 acre or more of land must obtain coverage under the SWRCB Construction General Permit (Order 2009-0009-DWQ as amended by Order 2010-0014-DWQ, and Order 2012-006-DWQ). Under the terms of the permit, project proponents must file a complete and accurate Notice of Intent and Permit Registration Documents with the SWRCB. Project proponents must also demonstrate conformance with applicable construction Best Management Practices (BMPs) and prepare a construction Storm Water Pollution Prevention Plan (SWPPP) containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project site.

4.7.3.3 Regional

San Diego County Code, Title 6, Division 8

San Diego County Code of Regulatory Ordinances under Title 6, Division 8, Chapters 8 through 11 establish the HMD as the local CUPA. The HMD is responsible for the protection of public health, safety, and the environment; and inspects businesses or facilities that handle or store hazardous materials, generate hazardous waste, generate medical waste, and own or operate underground storage tanks. HMD also administers the California Accidental Release Prevention Program and the Aboveground Petroleum Storage Act Program, and provides specialized instruction to small businesses through its Pollution Prevention Specialist. HMD has the authority under state law to inspect facilities with hazardous materials or hazardous waste and, in cases where a facility is in non-compliance with the applicable state law or regulations, take enforcement action.

Projects are required to notify HMD regarding the use, handling, release (spills), storage, and/or disposal of hazardous materials and hazardous waste in accordance with existing state law and County ordinance. The notification is the initial step in the HMD permitting process, which requires

businesses that handle or store hazardous materials, are part of the California Accidental Release Prevention Program, generate or treat hazardous wastes, generate or treat medical waste, store at least 1,320 gallons of aboveground petroleum, or own and/or operate underground storage tanks to obtain and maintain a Unified Program Facility Permit. The online notification must be done using the State of California Environmental Reporting System by the project proponent/permittee requesting a permit and submitted within 30 days.

If a building permit is required, Section 65850.2 of the California Government Code prohibits building departments from issuing a final Certificate of Occupancy unless a business or facility that handles hazardous materials has submitted and met the requirements of a Hazardous Materials Business Plan. The Hazardous Materials Business Plan contains detailed information on the storage of hazardous materials at regulated facilities and serves to prevent or minimize damage to public health, safety, and the environment from a release or threatened release of a hazardous material. The Hazardous Materials Business Plan also provides emergency response personnel with adequate information to help them better prepare and respond to chemical-related incidents at regulated facilities.

Operational Area Emergency Plan

The San Diego County Operational Area was formed to help the County and its cities develop emergency plans, implement such plans, develop mutual aid capabilities between jurisdictions, and improve communications between jurisdictions and agencies. The San Diego County Operational Area consists of the County and all jurisdictions within the County. The Operational Area Emergency Plan is for use by the County and all of the cities within the County to respond to major emergencies and disasters. It defines roles and responsibilities of all County departments and many city departments.

Cities within the County are encouraged to adopt the Operational Area Emergency Plan, with modifications that would be applicable to each city. The plan is updated once every 4 years by the Office of Emergency Services and the Unified Disaster Council of the Unified San Diego County Emergency Services Organization. The most recent update was adopted by the County Board of Supervisors in September 2018.

The District has developed a basic Emergency Operations Plan, as well as supplemental preparedness plans that cover topics such as hazard mitigation and continuity of operations in accordance with the Standardized Emergency Management System (SEMS) and National Incident Management System (NIMS). SEMS and NIMS are the established state and federal emergency response standards, respectively. These standards ensure continuity in planning and response to critical incidents, disasters and planned events which impact communities. The District's emergency response plans are reviewed and updated regularly in accordance with the SEMS and NIMS standards. Integral in these emergency response plans is coordination between local, state and federal agencies, as well external communications with the community, businesses and other stakeholders.

County of San Diego Solid Waste Local Enforcement Agency

The County's Solid Waste Local Enforcement Agency (LEA) is responsible for enforcing federal and state laws and regulations for the safe and proper handling of solid waste in San Diego County, excluding the City of San Diego, which are overseen by the City of San Diego's Solid Waste Local

Enforcement Agency. State law (Public Resources Code) requires that every local jurisdiction designate a Solid Waste LEA that is certified by the Department of Resources Recycling and Recovery to enforce federal and state laws and regulations for the safe and proper handling of solid waste. The LEA is primarily responsible for overseeing permitting, operation, and closure of solid waste disposal sites.

Any development plan proposing to handle, process, transport, store, or dispose of solid wastes—including household trash and garbage, construction debris, commercial refuse, sludge, ash, discarded appliances and vehicles, manure, landscape clippings, and other discarded wastes—must contact the LEA for determination of the need for a solid waste facility permit.

4.7.3.4 Local

City Code of Ordinances, Title 9, Chapter 9.40

The City adopted Chapter 8, Division 8 of Title 6 of the San Diego County Code of Regulatory Ordinances, known as the Disclosure of Hazardous Materials Ordinance, as an ordinance of the City. Title 9, Chapter 9.40 also adopts as a City ordinance Chapter 9 of Title 6 of the San Diego County Code, commencing with Section 68.901, known as the Hazardous Waste Regulatory Ordinance. These ordinances would be enforced by the director of environmental health of the County of San Diego.

BMP Design Manual

In June 2015 the District adopted a jurisdiction-specific local BMP Design Manual to address the requirement of the Municipal Permit. This BMP Design Manual is applicable to projects carried out on District-managed tidelands. Pursuant to the Municipal Permit, the District began implementing the BMP Design Manual on February 16, 2016. The District's BMP Design Manual identifies updated post-construction stormwater requirements for both tenant- and District-sponsored major maintenance or capital improvement projects as required by the Municipal Permit.

The BMP Design Manual identifies BMP requirements for both standard projects and priority development projects (PDPs) as outlined in the permit. All new development and redevelopment projects are required to implement standard source control and site design BMPs to eliminate or reduce stormwater runoff pollutants. For PDPs, the BMP Design Manual also describes structural treatment controls that must be incorporated into the site design and, where applicable, addresses potential hydromodification impacts from changes in flow and sediment supply.

Project proponents must submit a Storm Water Quality Management Plan (SWQMP) accurately describing how the project will meet source control site design and pollutant control BMP requirements. District staff provide technical review of and approve SWQMP documents and drainage design plans to ensure that pollutant control BMP requirements are met. The SWQMP is evaluated for compliance with the Municipal Permit and with design criteria outlined in the District's BMP Design Manual. Once the approval process is complete, the project is able to commence and routine inspections are conducted throughout the duration of the project construction. The proposed project is a PDP, and therefore an SWQMP and treatment control BMPs are required.

San Diego Unified Port District, Article 10

The District's own Article 10, the Port Stormwater Management and Discharge Control Ordinance, prohibits the deposit or discharge of any chemicals or waste to the tidelands or San Diego Bay and makes it unlawful to discharge pollutants directly into non-stormwater or indirectly into the stormwater conveyance system. The proposed project would be obligated to abide by Article 10.

Naval Air Station North Island Airport Land Use Compatibility Plan

The San Diego County Regional Airport Authority approved the ALUCP for NASNI on October 2, 2020. The proposed project site is located within the AIA and Airspace Protection Boundary for NASNI and is therefore subject to the ALUCP (San Diego County Regional Airport Authority 2020). An ALUCP governs the suitable land uses that may locate within a specified boundary of a public or military airport, to protect the public. The AIA represents that specified area surrounding an airport where current and projected airport-related noise, safety, airspace protection, and overflight factors may influence land uses. As required by the CPUC (Section 21675(b), the NAS North Island ALUCP is consistent with the safety and noise standards of the 2011 Air Installations Compatible Use Zones (AICUZ) study prepared by the United States Navy for NASNI. The local agency with discretionary authority (the District and the City) must submit an application for a consistency determination to the ALUC for review prior to construction (San Diego County Regional Airport Authority 2020).

4.7.4 Project Impact Analysis

4.7.4.1 Methodology

The following impact analysis evaluates the effects from hazards and hazardous materials that may result with the implementation of the proposed project. Based upon the existing conditions described above, and in the reports identified in Section 4.7.1, *Overview,* the impact analysis assesses the direct and indirect impacts related to hazards and hazardous materials and determines whether the proposed project would trigger a threshold listed below.

4.7.4.2 Thresholds of Significance

The following significance criteria are based on Appendix G of the State CEQA Guidelines and provide the basis for determining significance of impacts associated with hazards and hazardous materials resulting from the implementation of the proposed project. The determination of whether a hazards and/or hazardous materials impact would be significant is based on the thresholds described below and the professional judgment of the District as Lead Agency and the recommendations of qualified personnel at ICF, all of which is based on the evidence in the administrative record.

Impacts are considered significant if the project would result in any of the following.

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
4. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
5. Be located within an airport land use plan or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and exacerbate a safety hazard or excessive noise for people residing or working within the vicinity of the project area.
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

The analysis of the potential impacts of the proposed project related to Thresholds 1, 5, and 7 is provided in Section VIII of the Initial Study/Environmental Checklist (Appendix A of this Draft EIR), which determined that the proposed project would result in no impact or less-than-significant impacts for these issues. The analysis and conclusions therein are incorporated by reference in this section of the Draft EIR and are summarized in Chapter 6, *Additional Consequences of Project Implementation.* Therefore, only Thresholds 2, 3, 4, and 6 are discussed in the impact analysis that follows.

4.7.4.3 Project Impacts and Mitigation Measures

Threshold 2: Implementation of the project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Impact Discussion

Construction

Construction of the proposed project would involve routine transport, use, and disposal of hazardous materials such as solvents, paints, oils, fuels, and grease. Such transport, use, and disposal must be compliant with applicable regulations such as the RCRA, DOT Hazardous Materials Regulations, and the local CUPA (as well as others described under Section 4.7.3, *Applicable Laws and Regulations*). Although small amounts of hazardous materials would be transported, used, and disposed of during the construction phase, these materials are typical of construction projects and would not include acutely hazardous materials. Any accidental release of these materials due to spills or leaks would be cleaned up in the normal course of business, consistent with the above-mentioned regulations.

An SWRCB General Construction Permit must be obtained for any project component that would disturb 1 acre or more of land during construction activities. Under the terms of the permit, the project must implement BMPs and prepare a SWPPP. This would ensure that if an accidental release were to occur, the spill would not reach surface water or other water resources.

In addition, one or more of the project components may meet the criteria that require preparation of an SPCC plan. The construction phase of the project component would have to meet two of the three criteria: (1) construction would involve storing, using, transferring, or otherwise handling oil; (2) the project is located adjacent to navigable waters of the United States; and (3) the project would have an aggregate aboveground storage capacity greater than 1,320 gallons or an underground storage capacity greater than 42,000 gallons (see Section 4.7.3). An SPCC plan would address procedures to prevent oil spills, and if a spill does occur, control measures to ensure the spill does not enter navigable waters. If an SPCC plan is required, preparation and implementation of the plan would reduce potential impacts associated with accidental spills in the vicinity of navigable water.

Compliance with all of the previously described regulations would reduce the potential for upset or an accidental release to occur from the routine use of hazardous materials during construction activities, and impacts would be less than significant.

Asbestos-Containing Materials and Lead-Based Paint

Generally, buildings and structures built before 1980 may contain LBP and/or ACM. Demolition of buildings built before 1980 could encounter LBP and/or ACM and could result in exposure of the environment or the public to LBP and/or ACM. However, none of the components of the proposed project involve demolition of any buildings built before 1980.

Contaminated Soils

As shown in Table 4.7-2, there are two open cases [on the project site] documented on the Geotracker database related to contaminated soil located on the City Program –Development Component and the Pasha Road Closures Component. Case #H23772-006, which is located within the City Program – Development Component at 830 West 23rd Street, is open, but documentation indicates the last required submittal was received and the case can be closed. No other information about the condition of the clean-up site is available. As such, ground-disturbing activities could encounter residual contaminated material at the City Parcels. Additionally, the routes associated with the Bayshore Bikeway Component would be constructed along the boundaries of the City Parcels within the Bay Marina Drive, West 23rd Street, and Harrison Avenue (now Marina Way) rights-of-way, which would involve ground-disturbing construction activities. Due to the proximity to the open VAP case, this ground-disturbing activity could also encounter residential contaminated material.

The open case #DEH2017-LSAM-000428 (Bayshore Bikeway Segments 4B and [Interim] 5) is located along Tidelands Avenue between 32nd Street and West 28th Street, along the portion of Tidelands Avenue that is proposed to be closed as part of the Pasha Road Closures Component. A subsurface investigation identified soil contaminated with TPH, Title 22 metals, organochlorine pesticides, PCBs, and PAHs. A Soil Management Plan was developed for the excavation and construction of the Bayshore Bikeway Segments 4B and [Interim] 5. This segment of the Bayshore Bikeway was completed by SANDAG in 2018, but the case remains open. The Pasha Road Closures Component may involve minor ground-disturbing activities, which, due to the open status of the case, would have the potential to encounter contaminated soil.

The Phase II ESA prepared for preliminary engineering on the Balanced Plan indicated that concentrations of TPH were detected above ESLs in soils at the location of the proposed rail improvements on Lot K, part of the Pasha Rail Improvement Component (also identified as Parcel B5 of the Balanced Plan). The Phase II ESA also identified concentrations of PAHs and PCBs had been detected in the area proposed for rail improvements on Lot K, but they were below RSLs. However, due to the concentrations of PAHs and PCBs, export of soil in the upper 5 feet may be considered regulated waste. Therefore, due to residual concentrations of hazardous materials in the soil, ground-disturbing activities associated with the Pasha Rail Improvement Component could encounter contaminated soil.

Given there are both open and closed VAP cases, and taking into account the historic uses, on the project site within the Pasha Road Closures Component, and the Bayshore Bikeway Component and City Program – Development Component—as well as evidence of contaminants within the Pasha Rail Improvement Component—ground-disturbing activities proposed for these areas would be likely to encounter residual contaminated soils. Disturbing soils contaminated with hazardous materials such as TPH, pesticides, PCBs, and PAHs could exacerbate the existing hazardous conditions by exposing workers, the environment, or the public to these hazardous materials, which would be considered a significant impact (**Impact-HAZ-1**). Because the location of former contamination is known due to previous subsurface investigations, a Soil Management Plan would be implemented during work in these areas in order to reduce the potential risk of exposing workers, the environment, or the public to hazardous materials (**MM-HAZ-1, MM-HAZ-2,** and **MM-HAZ-3**).

Several cases within the City Program – Development Component have been closed under the condition that future land uses would remain the same. The closure of VAP Case #H23772-005 was under the condition that future use of the property would be commercial/industrial uses. Similarly, VAP Case #H36620-001 was closed with the understanding the property would be used for industrial uses and the pavement at the site would remain in place. Case #H23772-004 was closed based on the use of the site for commercial purposes. These three cases are located within the City Program – Development Component, which is anticipated to be redeveloped with a combination of hotel, restaurant, and retail spaces. Proposed hotel use would allow hotel guests to stay on site for extended periods of time, which could result in exposure of guests to hazardous conditions not considered when the cases were closed contingent upon the future commercial/industrial use of the property. Because the City Program – Development Component proposes a land use that may not be consistent with the conditions of the regulatory closure of VAP Cases #H23772-005, #H23772-004, and #H36620-001, the construction of hotel uses on the site would be considered a significant impact (**Impact-HAZ-2**). Coordination with DEH would be required to determine what, if any, further actions would be necessary to prepare the site for hotel uses (**MM-HAZ-4**).

Operation

Operational uses of the proposed project, including hotel, retail, restaurants, marina, and marine terminal operations, would result in the use of fuels, oils, solvents, cleaning agents, paints, pesticides, antifreeze, used oil, batteries, and aerosols. These hazardous material products are generally used in small amounts, and any releases that occur would be limited in scope and spill area, and would be cleaned up soon after they occur as required by regulations, including the RCRA, DOT Hazardous Materials Regulation, and the NPDES permit. Proposed operations at the Pier 32 Marina and the marine terminal would abide by the applicable laws and regulations, including those

enforced by the County of San Diego Solid Waste LEA, as well as the San Diego Harbor Safety Plan (Office of Spill Prevention and Response 2015).

Therefore, the potential for creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment from project operations would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would potentially create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Potentially significant impact(s) include:

Construction

Impact-HAZ-1: Residual Soil Contamination (City Program – Development Component). The historic information reviewed for this analysis indicates the historic uses of the City Program – Development Component site have previously resulted in releases of hazardous materials, and residual hazardous materials may still be present. Therefore, contaminated soils may be encountered during construction activities on the City Program – Development Component site, which could potentially result in a release of hazardous materials and exacerbate the existing hazardous conditions; impacts would be significant.

Impact-HAZ-2: Residual Soil Contamination (Pasha Road Closures Component). The historic information reviewed for this analysis indicates the historic uses of the roadways associated with the Pasha Road Closures Component have previously resulted in releases of hazardous materials, and residual hazardous materials may still be present. Therefore, contaminated soils may be encountered during construction activities on the Pasha Road Closures Component site, which could potentially result in a release of hazardous materials and exacerbate the existing hazardous conditions; impacts would be significant.

Impact-HAZ-3: Conflict with Conditions of Regulatory Closure (City Program – Development Component). VAP Cases #H23772-005, #H36620-001, and #H23772-004 were closed by the DEH contingent upon the future commercial and/or industrial use of the properties. The City Program – Development Component would include hotel uses on these properties, which could conflict with the requirements of the DEH closure. This could exacerbate the existing hazardous conditions; impacts would be significant.

Mitigation Measures

Construction

For **Impact-HAZ-1:**

> **MM-HAZ-1: Prepare and Implement a Soil Management Plan (City Program – Development Component).** Prior to the City's approval of the project grading plans and the commencement of any construction activities that would disturb the soil on the City Program – Development Component site, the project proponent shall retain a licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer with experience in contaminated site redevelopment and restoration to prepare and submit a Soil and Groundwater Management Plan to the City for review and approval. After the City's review and

approval, the project proponent shall implement the Soil and Groundwater Management Plan, which shall include the following:

- A *Site Contamination Characterization Report* (Characterization Report) delineating the vertical and lateral extent and concentration of residual contamination from the site's past uses throughout the City Program – Development Component construction area. The Characterization Report shall include a compilation of data based on historical records review and from prior reports and investigations and, where data gaps are found, include new soil and groundwater sampling to characterize the existing vertical and lateral extent and concentration of residual contamination. The project proponent shall coordinate with the County of San Diego Department of Health if the Characterization Report identifies contamination.
- A *Soil Testing and Profiling Plan* (Testing and Profiling Plan) for those materials that shall be disposed of during construction. Testing shall occur for all potential contaminants of concern, including CA Title 22 metals, PAHs, VOCs, pesticides, PCBs, TPH, PAHs, or any other potential contaminants, as specified within the Testing and Profiling Plan. The Testing and Profiling Plan shall document compliance with CA Title 22 for proper identification and segregation of hazardous and solid waste as needed for acceptance at a CA Title 22–compliant offsite disposal facility. All excavation activities shall be actively monitored by a Registered Environmental Assessor for the potential presence of contaminated soils and for compliance with the Testing and Profiling Plan.
- A *Soil Disposal Plan* (Disposal Plan), which shall describe the process for excavation, stockpiling, dewatering, treating, and loading and hauling of soil from the site. This plan shall be prepared in accordance with the Testing and Profiling Plan (i.e., in accordance with CA Title 22 and DOT Title 40 CFR Part 263, California Code of Regulations Title 27), and current industry best practices for the prevention of cross contamination, spills, or releases. Measures shall include, but not be limited to, segregation into separate piles for waste profile analysis based on organic vapor, and visual and odor monitoring.
- A *Site Worker Health and Safety Plan* (Safety Plan) to ensure compliance with 29 CFR Part 120, Hazardous Waste Operations and Emergency Response regulations for site workers at uncontrolled hazardous waste sites. The Safety Plan shall be based on the Characterization Report and the planned site construction activity to ensure that site workers potentially exposed to site contamination in soil are trained, equipped, and monitored during site activity. The training, equipment, and monitoring activities shall ensure that workers are not exposed to contaminants above personnel exposure limits established by Table Z, 29 CFR Part 1910.1000. The Safety Plan shall be signed by and implemented under the oversight of a California State Certified Industrial Hygienist.

MM-HAZ-2: Prepare and Implement a Monitoring and Reporting Program (City Program – Development Component). Prior to commencement of construction of the City Program – Development Component, the project proponent shall prepare a Monitoring and Reporting Program and submit it to the City for review and approval. The Monitoring and Reporting Program shall be implemented during and upon completion of construction of the City Program – Development Component. The Monitoring and Reporting Program shall document implementation of the Soil Management Plan, including the Testing and Profiling Plan, Disposal Plan, and Safety Plan, as required by **MM-HAZ-1**. The Monitoring and Reporting Program shall include a requirement that the project proponent submit monthly reports (starting with the first

ground disturbance activities and ending at the completion of ground disturbance activities) to the City, signed and certified by the licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer, as applicable, documenting compliance with the provisions of these plans and the overall Soil and Groundwater Management Plan.

MM-HAZ-3: Prepare and Submit a Project Closeout Report (City Program – Development Component). Within 30 days of completion of landside construction of the City Program – Development Component, the project proponent shall prepare a Project Closeout Report and submit it to the City for review and approval. The Project Closeout Report shall summarize all environmental activity at the site and document implementation of the Soil Management Plan, as required by **MM-HAZ-1**, and the Monitoring and Reporting Program, as required by **MM-HAZ-2**.

For **Impact-HAZ-2:**

MM-HAZ-4: Prepare and Implement a Soil Management Plan (Pasha Road Closures Component). Prior to the District's and the City's approval of the project's grading plans and the commencement of any construction activities that would disturb the soil, the project proponent shall retain a licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer with experience in contaminated site redevelopment and restoration, to prepare and submit a Soil and Groundwater Management Plan to the District's Environmental Protection Department and the City for review and approval. After the District's and the City's review and approval, the project proponent shall implement the Soil and Groundwater Management Plan, which shall include the following:

- A *Site Contamination Characterization Report* (Characterization Report) delineating the vertical and lateral extent and concentration of residual contamination from the site's past uses throughout the Pasha Road Closure Component construction area. The Characterization Report shall include a compilation of data based on historical records review and from prior reports and investigations and, where data gaps are found, include new soil and groundwater sampling to characterize the existing vertical and lateral extent and concentration of residual contamination. The project proponent shall coordinate with the County of San Diego Department of Health if the Characterization Report identifies contamination.
- A *Soil Testing and Profiling Plan* (Testing and Profiling Plan) for those materials that shall be disposed of during construction. Testing shall occur for all potential contaminants of concern, including CA Title 22 metals, PAHs, VOCs, pesticides, PCBs, TPH, PAHs, or any other potential contaminants, as specified within the Testing and Profiling Plan. The Testing and Profiling Plan shall document compliance with CA Title 22 for proper identification and segregation of hazardous and solid waste as needed for acceptance at a CA Title 22–compliant offsite disposal facility. All excavation activities shall be actively monitored by a Registered Environmental Assessor for the potential presence of contaminated soils and for compliance with the Testing and Profiling Plan.
- A *Soil Disposal Plan* (Disposal Plan), which shall describe the process for excavation, stockpiling, dewatering, treating, and loading and hauling of soil from the site. This plan shall be prepared in accordance with the Testing and Profiling Plan (i.e., in accordance with CA Title 22 and DOT Title 40 CFR Part 263, California Code of Regulations Title 27), and current industry best practices for the prevention of cross contamination, spills, or releases.

Measures shall include, but not be limited to, segregation into separate piles for waste profile analysis based on organic vapor, and visual and odor monitoring.

- A *Site Worker Health and Safety Plan* (Safety Plan) to ensure compliance with 29 CFR Part 120, Hazardous Waste Operations and Emergency Response regulations for site workers at uncontrolled hazardous waste sites. The Safety Plan shall be based on the Characterization Report and the planned site construction activity to ensure that site workers potentially exposed to site contamination in soil are trained, equipped, and monitored during site activity. The training, equipment, and monitoring activities shall ensure that workers are not exposed to contaminants above personnel exposure limits established by Table Z, 29 CFR Part 1910.1000. The Safety Plan shall be signed by and implemented under the oversight of a California State Certified Industrial Hygienist.

MM-HAZ-5: Prepare and Implement a Monitoring and Reporting Program (Pasha Road Closures Component). Prior to commencement of construction of the Pasha Road Closures Component, the project proponent shall prepare a Monitoring and Reporting Program and submit it to the District's Environmental Protection Department and the City for review and approval. The Monitoring and Reporting Program shall be implemented during and upon completion of construction of the Pasha Road Closures Component. The Monitoring and Reporting Program shall document implementation of the Soil Management Plan, including the Testing and Profiling Plan, Disposal Plan, and Safety Plan, as required by **MM-HAZ-1**. The Monitoring and Reporting Program shall include a requirement that the project proponent submit monthly reports (starting with the first ground disturbance activities and ending at the completion of ground disturbance activities) to the District's Development Services Department and the City, signed and certified by the licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer, as applicable, documenting compliance with the provisions of these plans and the overall Soil and Groundwater Management Plan.

MM-HAZ-6: Prepare and Submit a Project Closeout Report (Pasha Road Closures Component). Within 30 days of completion of landside construction of the Pasha Road Closures Component, the project proponent shall prepare a Project Closeout Report and submit it to the District's Environmental Protection Department and the City for review and approval. The Project Closeout Report shall summarize all environmental activity at the site and document implementation of the Soil Management Plan, as required by **MM-HAZ-4**, and the Monitoring and Reporting Program, as required by **MM-HAZ-5**.

For **Impact-HAZ-3:**

MM-HAZ-7: Coordinate with the DEH (City Program – Development Component). Prior to ground disturbing activities on the City Program – Development Component site, the project proponent for the City Program – Development Component shall coordinate with the DEH to reopen VAP Cases #H23772-005, #H36620-001, and #H23772-004 to determine if the existing conditions would be below acceptable cleanup thresholds for hotel use. If the DEH determines the onsite conditions do not meet thresholds for future hotel uses, the project proponent must comply with the requirements of the DEH to achieve remediation standards.

Level of Significance after Mitigation

Construction

With implementation of **MM-HAZ-1** through **MM-HAZ-6, Impact-HAZ-1** and **Impact-HAZ-2** would be reduced to less-than-significant levels because safeguards would be implemented during ground-disturbing construction activities to ensure upset and accidental conditions do not occur, and detrimental effects in the event of unanticipated upset conditions would be minimized. Implementation of **MM-HAZ-7** would reduce **Impact-HAZ-3** to less-than-significant levels because coordination with the DEH would ensure the cases would be reviewed, and remediated if necessary, to the appropriate remediation standard for future hotel use.

Threshold 3: Implementation of the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Impact Discussion

The nearest school is Kimball Elementary School, approximately 0.25 mile east of the Bayshore Bikeway Routes 1and 3 alignment along McKinley Avenue. There are no other project components within 0.25 mile of the Kimball Elementary School, and there are no other schools within 0.25 mile of any other project component.

Construction

Construction of the Bayshore Bikeway Component may involve demolition of the existing pavement and/or sidewalk along McKinley Avenue, and grading, paving, and striping of the Class I bike path. These construction activities would require the use of typical materials, such as diesel fuel, gasoline, oil, hydraulic fluid, asphalt and binders, and paint. Any hazardous materials used during project construction would be transported, used, and stored in accordance with state and federal regulations, as described in Section 4.7.3. Construction activities would not be expected to require acutely hazardous materials. Therefore, construction of the proposed project would not emit hazardous emissions or use hazardous or acutely hazardous materials within 0.25 mile of a school, and impacts would be less than significant.

Operation

The Bayshore Bikeway Component would operate as a passive recreation facility, and would not emit hazardous emissions or result in the handling or use of hazardous materials. Occasional repairs along the Bayshore Bikeway may require the use of asphalt, paint, and equipment requiring fuel, oil, grease, or other commonly used hazardous materials. These hazardous materials would be used in small quantities and would operate in compliance with the applicable regulations described above in Section 4.7.3. Therefore, operation of the proposed project would not emit hazardous emissions or handle hazardous materials, substances, or waste within 0.25 mile of a school, and impacts would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 4: The proposed project would be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and would create a significant hazard to the public or the environment.

Impact Discussion

As described in Section 4.7.2.2, *Hazardous Materials Database Results,* there are several unauthorized release cases included on a database of hazardous material sites pursuant to Government Code Section 65962.5 (Cortese List) that are located on the project site. Seven hazardous materials cases are located within the City Program – Development Component site, six of which have been closed by the oversight agency, and one, Case #H23772-006 (C&M Meat Packing), that is open. However, based on the available documentation of the case, the oversight agency has received the last required data and has recommended Case #H23772-006 be closed. One case, #DEH2017-LSAM-000428 (Bayshore Bikeway Segments 4B & [Interim] 5), is located within the Pasha Road Closures Component site. That case was associated with the construction of the interim Bayshore Bikeway along Tidelands Avenue, which was completed by SANDAG in 2018; however, the hazardous materials case remains open.

Construction

Both of the open sites, as well as the closed sites, could contain contaminated soil due to historic uses. Proposed project construction that involves earthwork would have the potential to encounter residual contaminated soil that was not completely removed from the site during previous investigations and remediation. If not properly handled, these contaminated soils could expose workers, the environment, and the public to hazardous materials, exacerbating the existing hazardous condition during construction of the City Program – Development Component (**Impact-HAZ-1**) and the Pasha Road Closures Component (**Impact-HAZ-2**). A Soil Management Plan would be implemented to reduce the potential risk of exposing workers, the environment, or the public to hazardous conditions (**MM-HAZ-1** through **MM-HAZ-6**).

Operation

Operational uses of the City Program – Development Component and the Pasha Road Closures Component would not involve ground-disturbing activities; thus, project operation would not

exacerbate hazardous materials conditions associated with sites listed on the Cortese List and would not create a significant hazard to the public or the environment.

Level of Significance Prior to Mitigation

Implementation of the proposed project would potentially occur on sites that are included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment. Potentially significant impact(s) include:

Construction

Impact-HAZ-1 and **Impact-HAZ-2,** as discussed under Threshold 2 above.

Mitigation Measures

Construction

For **Impact-HAZ-1**:

Implement **MM-HAZ-1** through **MM-HAZ-3** as described under Threshold 2 above.

For **Impact-HAZ-2**:

Implement **MM-HAZ-4** through **MM-HAZ-6** as described under Threshold 2 above.

Level of Significance after Mitigation

Construction

With implementation of **MM-HAZ-1** through **MM-HAZ-6**, **Impact-HAZ-1** and **Impact-HAZ-2** would be reduced to less-than-significant levels because safeguards would be taken during construction to ensure existing hazardous conditions are not exacerbated, and construction activities would not create a significant hazard to the public or the environment.

Threshold 5: The project site would be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and would not result in a safety hazard or excessive noise for people residing or working in the project area.

Impact Discussion

As described in Section 4.7.2.4, *Proximity to Airports and Airstrips*, the project site is subject to the NASNI ALUCP and is entirely within the AIA and the Airspace Protection Boundary for NASNI. The Airspace Protection Boundary designates the area where the ALUC limits the height of new structures and objects and other potential hazards per FAA standards. Due to the location of the proposed project within the Airspace Protection Boundary, project proponents would be required to file a Notice of Proposed Construction or Alteration (FAA Form 7460-1) for proposed structures, including temporary structures such as cranes or derricks. Federal law requires proposed structures that exceed Federal Aviation Regulations Part 77 height criteria to undergo an Obstruction Evaluation/Airport Airspace Analysis.

After an FAA determination has been made, the project proponent must provide the FAA Notice of Determination letter to the ALUC for a consistency review. The project proponent may also provide a certification that the object proposed for construction will be shielded by existing structures of a permanent nature, if applicable. If the FAA issues a Determination of No Hazard to Air Navigation with conditions, the proposed project must comply with the conditions to be conditionally compatible with the ALUCP policies. In addition, in accordance with the NASNI ALUCP, proposed adoption of or amendment to a General Plan or Community/Specific/Precise Plan/Master Plan are always subject to ALUC Review. Therefore, because the proposed project includes the Port Master Plan Amendment Component and the City Program – Plan Amendments Component, these elements of the proposed project must be submitted to the ALUC for a consistency review. The local agency with discretionary authority (i.e., the District for the Port Mater Plan Amendment Component and the City for the City Program – Plan Amendments Component) would submit the application for determination of consistency to the ALUC, who would provide either a determination of consistency with completeness notice, including any ALUC conditions that apply, or an inconsistent determination at noticed public meeting. Furthermore, in accordance with Federal Aviation Regulations, Part 77, the FAA would be notified at least 45 days prior to construction of any project component because of the proximity of the site to a navigation facility. The proposed project is required to obtain all necessary FAA determinations prior to construction, and comply with the conditions provided in the determination, if any. Because the proposed project would be required to comply with FAA and ALUC regulations, construction and operation of the proposed project would not result in a safety hazard for people residing or working in the project area. The impact would be less than significant.

The proposed project area is not within a noise contour established by the NASNI ALUCP; therefore, the project would not expose additional residents or workers to noise impacts related to the NASNI facility. For further analysis of noise impacts, see Section 4.10, *Noise and Vibration.*

Level of Significance Prior to Mitigation

Implementation of the proposed project would result in less-than-significant impacts related to being located within an airport land use plan area or, where such a plan has not been adopted, be within 2 miles of a public airport or public use airport, and resulting in a safety hazard or excessive noise for people residing or working in the project area.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

The impact would be less than significant.

Threshold 6: Implementation of the project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Impact Discussion

Construction

Emergency response and evacuation is the responsibility of the police and fire service providers, as detailed in Section 4.11, *Public Services and Recreation*. During certain construction activities, roadways within the project site may be partially or completely closed to traffic due to large equipment, material delivery, or work within the right-of-way. Road blockage could prevent emergency response vehicles from accessing parts of the project site or the vicinity, which could physically interfere with the implementation of an emergency access or response plan (**Impact-HAZ-4**). A Traffic Control Plan (**MM-TRA-3**) would be implemented during project construction to reduce construction-related traffic and physical road blocks (see Section 4.12, *Transportation, Circulation, and Parking*, for specifics), which would maintain emergency access to the proposed project and nearby properties. Moreover, as discussed in Section 4.11, police and fire response times are not anticipated to be affected by the proposed project. Mitigation measure **MM-TRA-3** would be implemented for the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component. Additionally, **MM-HAZ-8** would be applied to the Pasha Road Closures Component, which would require the project proponent to submit plans for a temporary emergency access road to the City Fire Marshal prior to construction. The approved temporary emergency access road would be maintained at all times during construction, ensuring adequate emergency access. Mitigation measure **MM-HAZ-10** would also be applied to the City Program – Development Component, which would require the project proponent to prepare and submit plans to the City Fire Marshal, demonstrating adequate emergency access during construction.

The proposed project would be required to comply with applicable requirements set forth by the applicable emergency response agencies: the National City Police Department, the National City Fire Department, the County of San Diego Office of Emergency Services, and the San Diego Unified Port District Harbor Police Department (Harbor Police). The City has established a Tsunami Hazard Zone and a Tsunami Evacuation Route along the coast. The project site is within the Tsunami Hazard Zone and could result in construction along roads designated as the Tsunami Evacuation Route, including Tidelands Avenue and Bay Marina Drive/24th Street. The proposed project would comply with the Transportation Demand Management Plan, which would ensure vehicle traffic could effectively travel throughout the project site during construction.

The Office of Emergency Services coordinates emergency response at the local level in the event of a disaster. This emergency response coordination is facilitated by the Operational Area Emergency Operations Center and responding agencies to the project site. The National City Police Department and the Harbor Police have entered into a mutual aid agreement for the region with 14 other agencies located in the Operational Area. If an agency does not have adequate resources to respond to an emergency or incident, the mutual aid agreement can be activated in accordance with the Operational Area EOP (County of San Diego 2018). The City has also adopted the Operational Area EOP as the applicable emergency response plan for the jurisdiction. Portions of the proposed project in the City's jurisdiction would be subject to the procedures and policies outlined in the Operational

Area EOP pertaining to emergency response to natural and human-made disasters, including evacuation routes and protocols.

Additionally, District Policy No. 777 establishes the District's emergency organization and coordination with other applicable agencies (District 2017). As previously mentioned, the District participates in the County of San Diego Operational Area emergency response organization, as well as maintaining the Emergency Management Organization, which is activated when emergency response is required. The portions of the proposed project in the District's jurisdiction would comply with the policies and practices established by the District and the Office of Emergency Services in the case of an emergency.

Blocked roadways could prevent the access of emergency vehicles to the project site or the vicinity during construction. However, with the implementation of **MM-TRA-3**, **MM-HAZ-8**, and **MM-HAZ-10**, impacts on emergency access would be minimized during construction.

Operation

Operation of the proposed project could potentially impair implementation of or physically interfere with the County of San Diego Office of Emergency Services' Operational Area Emergency Plan or the District's emergency response organization. The proposed project includes several components that would physically alter the existing roadway system at the project site:

- Closure of Tidelands Avenue between Bay Marina Drive on the north and 32nd Street on the south and West 28th Street between Tidelands Avenue and Quay Avenue (Pasha Road Closures Component).
- Realignment of Marina Way (Balanced Plan).
- Potential narrowing or closure (to through-traffic) of Bay Marina Drive at Marina Way.
- Closure of the southern half of the Goesno Place.
- Shift the southern terminus of Tidelands Avenue.

The National City Tsunami Evacuation Route includes the northern portion of Tidelands Avenue, between 19th Street and Civic Center Drive, Bay Marina Drive/24th Street heading east from Tidelands Avenue, 19th Street heading east from Tidelands Avenue, Civic Center Drive heading east, and 8th Street heading east. None of these routes would be affected by the proposed road closures in the southern portion of Tidelands Avenue, between Bay Marina Drive and 32nd Street, the proposed closure of West 28th Street between Tidelands Avenue and Quay Avenue, or the other proposed changes listed above.

Although Tidelands Avenue would be closed to the public between Bay Marina Drive on the north and the existing alignment of 32nd Street on the south, the marine terminal would still be accessed from Bay Marina Drive. The Pasha facility would be required to develop an evacuation plan for the employees of their facility. In the event of an emergency, Pasha employees would follow the evacuation procedures for the facility, and once they have left the property, would follow evacuation routes established by the City and/or the EOP. Currently, emergency vehicles are able to access Pepper Park using Tidelands Avenue. The closure of Tidelands Avenue between Bay Marina Drive on the north and 32nd Street on the south and West 28th Street between Tidelands Avenue and Quay Avenue would have the potential to result in inadequate emergency access during operation (**Impact-HAZ-5**). However, **MM-HAZ-9** would require coordination with the City Fire Marshal that

would ensure that necessary features would be included as part of the Pasha Road Closures Component, such as an emergency access road, entrance/exit gates, and fire hydrants.

The City Program would also include the potential closure, or narrowing, of Bay Marina Drive (west of Marina Way) to through vehicular traffic. Changes to Bay Marina Drive may include keeping the road in its present condition with four lanes (two each way), reducing the four lanes to two lanes (one each way), and closing the road to through-traffic. The closure of Bay Marina Drive (west of Marina Way) to through-traffic could reduce public access to and from the project site and result in inadequate access for emergency vehicles (**Impact-HAZ-6**). However, access would still be available along Marina Way, allowing for evacuation of the project site, as well as emergency vehicle access. Furthermore, implementation of **MM-HAZ-10** would require coordination with City Fire Marshal if the Marina Bay Drive closure option is selected. The implementation of **MM-HAZ-10** would ensure that an emergency access road would be provided for emergency vehicles.

The realignment of Marina Way (Balanced Plan or GB Capital Component, if that alignment of Marina Way is selected) has the potential to result in inadequate emergency access during operation through the installation of traffic-calming devices (**Impact-HAZ-7**). However, the implementation of **MM-HAZ-11** would ensure that any traffic-calming devices incorporated as part of the Marina Way alignment (whether it is the alignment in the Balanced Plan or the alignment in the GB Capital Component) would be approved by the City Fire Marshal.

Closure of the southern terminus of Tidelands Avenue would limit public access to Bay Marina Drive; however, this is a dead-end roadway at the end of Tidelands Avenue that provides access to Pepper Park. Marina Way would be realigned to connect to the proposed new park entrance (new road D1), and new road D2 would provide access to the GB Capital/Pier 32 Marina site from the proposed realigned Marina Way. Emergency response vehicles and evacuation would be able to utilize new roads D1 and D2 to access the project site. Similarly, the proposed realigned Marina Way would alter the design of the roadway, but would not prevent emergency vehicle access or evacuation routes to the project site or surrounding vicinity. Further, under the Balanced Plan, the existing alignments of Marina Way and 32nd Street are proposed to be public access corridors allowing visual, pedestrian, bicycle, and emergency vehicle access. Under the GB Capital Component, the existing alignment of Marina Way is proposed to be a public access corridor allowing mainly pedestrians and bicycles but would also serve as a driveway for the occasional car or RV, and the existing alignment of 32nd Street is proposed to be a 24-foot-wide view corridor within a parking area, drive aisle, and an approximately 6-foot-wide sidewalk.

Therefore, the proposed road closures and realignments could change the circulation pattern in the project site, which could conflict with, or prohibit the implementation of, the requirements and procedures established by the EOP in the event of an emergency. However, **MM-HAZ-9**, **MM-HAZ-10**, and **MM-HAZ-11** would be implemented to minimize impacts on emergency access.

Level of Significance Prior to Mitigation

Implementation of the proposed project could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Potentially significant impact (s) include:

Construction

Impact-HAZ-4: Inadequate Emergency Access from Temporary Road Closures During Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, City Program – Development Component). Roadway lanes and/or whole roadways may be closed during construction, due to equipment, material delivery, or work, within the road right-of-way. Blocked roadways could prevent the access of emergency vehicles to the project site or the vicinity.

Impact-HAZ-6: Inadequate Emergency Access from the Closure of Bay Marina Drive to Through-Traffic (City Program – Development Component). Closure of Bay Marina Drive (west of Marina Way) to through-traffic may result in inadequate emergency access during construction and operation.

Operation

Impact-HAZ-5: **Inadequate Emergency Access from the Closure of Tidelands Avenue During Operation (Pasha Road Closures Component).** Closure of Tidelands Avenue between Bay Marina Drive on the north and 32nd Street on the south and West 28th Street between Tidelands Avenue and Quay Avenue may result in inadequate emergency access during operation.

Impact-HAZ-6: Inadequate Emergency Access from the Closure of Bay Marina Drive to Thru-Traffic (City Program – Development Component). Closure of Bay Marina (west of Marina Way) to through-traffic may result in inadequate emergency access during construction and operation.

Impact-HAZ-7: Inadequate Emergency Access from Marina Way Realignment (Balanced Plan or GB Capital Component). The implementation of traffic calming devices along Marina Way may result in inadequate emergency access during operation.

Mitigation Measures

Construction

For **Impact-HAZ-4:**

MM-TRA-3: Implement Traffic Control Measures During Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, City Program – Development Component). See Section 4.12, *Transportation, Circulation, and Parking.*

MM-HAZ-8: Maintain Emergency Access Road During Construction (Pasha Road Closures Component). A temporary emergency access road shall be maintained by the project proponent at all times during construction of the Pasha Road Closures Component. The location and components, as defined per the California Fire Code, of the temporary emergency access road shall be submitted to the City Fire Marshal for review and approval prior to closure of the roadway(s) to through-traffic. Written verification of inclusion of the temporary emergency vehicle access shall be provided to the District's Director of Planning prior to closure of the roadway(s) to through-traffic. Said written verification can be provided via a copy of the plans that have been stamped/approved by the City Fire Marshal, or the Fire Marshal's designee, or verification can be provided with a copy of the Fire Permit.

MM-HAZ-10: Coordinate with the City Fire Marshal (City Program – Development Component). If the scenario of the City Program – Development Component that proposes closing Bay Marina Drive (west of Marina Way) to through-traffic is selected for implementation, prior to closure of Bay Marina Drive to through-traffic, the project proponent for this closure shall prepare and submit plans to the City Fire Marshal for review and approval that demonstrate compliance with applicable state and local fire code regulations related to emergency access, both during construction and after implementation. Regardless of the means of accomplishing the preclusion of through-traffic (e.g., collapsible bollards, rolled curbs), an emergency access road shall be provided for emergency vehicles.

Prior to closure of Bay Marina Drive (west of Marina Way) to through-traffic, the above-described emergency vehicle access shall be field-verified by the City Fire Marshal, or the Fire Marshal's designee. Written verification of inclusion of the above-described emergency vehicle access shall be provided to the City's Community Development Director prior to closure of Bay Marina Drive (west of Marina Way) to through-traffic.

For **Impact-HAZ-6:**

Implement **MM-HAZ-10**, as described above.

Operation

For **Impact-HAZ-5:**

MM-HAZ-9: Coordinate with the City Fire Marshal (**Pasha Road Closures Component).** Prior to closure of the Pasha Road Closures Component to through-traffic, the project proponent for said project component shall prepare and submit plans to the City Fire Marshal for review and approval that demonstrate compliance with applicable state and local fire code regulations related to secondary access, emergency access, and maximum dead-end road length. At a minimum, the plans shall demonstrate that the project will include the following items related to emergency vehicle access:

- An **emergency access road**, on the existing alignment of Tidelands Avenue between Bay Marina Drive and the 32nd Street, that has an unobstructed minimum width of 20 feet (or 26 feet when a fire hydrant is located on the emergency access road), exclusive of shoulders or rolled curbs. The emergency access road shall be paved using an all-weather surface and shall support the imposed loads (75,000 pounds) of a fire apparatus. The emergency access road shall include official approved signs or other approved notices or markings that include the words "NO PARKING – FIRE LANE." At all times, the emergency access road shall not be obstructed in any manner, including the parking of vehicles.
- Any **entrance/exit gates** to/from the Pasha Road Closures Component shall be equipped with Knox Key Switches and Emergency Strobes to provide emergency vehicle access, including ingress and egress. A lock box (Knox Key Switch for fire and police) shall be required in conjunction with a detector/strobe switch to allow emergency vehicles to flash a vehicle-mounted strobe light towards the detector/strobe switch, which in turn overrides the system and opens the gate. The lock box and detector/strobe switch shall be placed at the front of each gate (the side of the gate that is adjacent to a public street). Any electric gate opener shall be listed in accordance with UL 325. Gates utilizing emergency strobe operation shall be designed, constructed, and installed to comply with requirements of ASTM F2200, and shall be maintained operational at all times, including but not limited to,

in the event of an electrical outage. Any entrance/exist gates to/from the Pasha Road Closures Component shall maintain an unobstructed vertical clearance of a minimum of 13 feet, 6 inches.

- **Fire hydrants** shall be located throughout the Pasha Road Closures Component site and shall be spaced no less than 400 feet apart. Fire hydrants shall be located within 400 feet of all locations that are roadway accessible (measurement starts from the nearest existing fire hydrant to the Pasha Road Closures Component site). Where a fire hydrant is located on an emergency access road, the minimum road width shall be 26 feet. All turns available for fire access and travel shall maintain a minimum radius of 28 feet.

Prior to utilization of the Pasha Road Closures Component for marine-related operations, the above-described emergency vehicle access shall be field-verified by the City Fire Marshal, or the Fire Marshal's designee. Written verification of inclusion of the above-described emergency vehicle access shall be provided to the District's Director of Planning prior to Pasha's utilization of the Pasha Road Closures Component for marine-related operations. Said written verification can be provided via a copy of the plans that have been stamped/approved by the City Fire Marshal, or the Fire Marshal's designee, or verification can be provided with a copy of the Fire Permit.

For **Impact-HAZ-6:**

Implement **MM-HAZ-10**, as described above.

For **Impact-HAZ-7:**

MM-HAZ-11: Manage Marina Way Realignment Conditions (Balanced Plan or GB Capital Component). The Marina Way Realignment proposed as part of the Balanced Plan (or GB Capital Component) shall not include traffic calming devices (e.g., speed humps), unless prior-written approval is obtained from the City Fire Marshal.

Level of Significance after Mitigation

Construction

Implementation of **MM-TRA-3**, **MM-HAZ-8**, and **MM-HAZ-10** would ensure emergency vehicle access would be maintained to the proposed project site and nearby properties during construction, which would reduce **Impact-HAZ-4** and **Impact-HAZ-6** to less than significant.

Operation

Implementation of **MM-HAZ-9**, **MM-HAZ-10**, and **MM-HAZ-11** would ensure emergency vehicle access would be maintained to the proposed project site and nearby properties during operation, which would reduce **Impact-HAZ-5**, **Impact-HAZ-6**, and **Impact-HAZ-7** to less than significant.

Section 4.8
Hydrology and Water Quality

4.8.1 Overview

This section describes the existing conditions and applicable laws and regulations for hydrology and water quality, followed by an analysis of the proposed project's potential to (1) violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality; (2) substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner that would (a) result in substantial erosion or siltation on- or off-site, (b) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite, or (c) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; (3) risk release of pollutants due to project inundation from flooding or tsunami; or (4) conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

All other hydrology and water quality issues were addressed in Section IX of the Initial Study/Environmental Checklist (Appendix A) and determined to be less than significant. The analysis and conclusions regarding these impacts are also summarized in Chapter 6, *Additional Consequences of Project Implementation*.

Based on the analysis that follows, all impacts related to hydrology and water quality would be less than significant. No mitigation is required.

4.8.2 Existing Conditions

This section describes the hydrology and water quality settings of the proposed project site. Pursuant to the Supreme Court case decision in *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369, Case No. S213478, CEQA does not require an analysis of how the existing environmental conditions would affect a project's residents or users unless the project would exacerbate those conditions. Therefore, when discussing impacts of the environment on the project, such as how an area prone to flooding may affect a project, the analysis would first determine if there is a potential for the project to exacerbate the issue. If evidence indicates it would not, then the analysis would conclude by stating such. If it would potentially exacerbate the issue, then evidence is provided to determine if the exacerbation would or would not be significant.

4.8.2.1 Surface Water Hydrology

The project site is located within the jurisdiction of the San Diego Regional Water Quality Control Board (RWQCB). The San Diego Region is divided into 11 hydrologic units (HUs) for administrative purposes. Each of the HUs flow from elevated regions in the east to lagoons, estuaries, or bays in the west and feature similar water quality characteristics and issues. The proposed project is within the

Pueblo San Diego and Sweetwater HUs, which are within the San Diego Bay Watershed, as shown in Figure 4.8-1. The Pueblo San Diego watershed is the smallest HU in San Diego County and covers approximately 60 square miles of predominantly urban landscape in the cities of San Diego, La Mesa, Lemon Grove, and National City. Approximately 75% of the watershed is developed (Project Clean Water 2021). Pueblo San Diego HU contains three hydrologic areas: Point Loma (908.1), San Diego Mesa (908.2), and National City (908.3). Major water features within the Pueblo San Diego HU are Chollas Creek, Paleta Creek, and San Diego Bay (Project Clean Water 2021). The Sweetwater HU is the largest of the three San Diego Bay hydrologic units, encompassing over 145,000 acres. Co-permittees within the more densely populated lower Sweetwater Hydrologic Area include the District and the Cities of San Diego, National City, Chula Vista, La Mesa, and Lemon Grove. The middle and upper areas to the east primarily consist of unincorporated areas within the jurisdiction of the County of San Diego (Project Clean Water 2021). Sweetwater HU contains three main drainage areas: Lower (909.1), Middle (909.2), and Upper (909.3). Major water features within the Sweetwater HU are Sweetwater River, Sweetwater Reservoir, Loveland Reservoir, and San Diego Bay. Portions of the San Diego Bay National Wildlife Refuge, including the Sweetwater Marsh, are also contained within the Sweetwater HU (Project Clean Water 2021). The project site is located east of San Diego Bay, north of Sweetwater Channel and west of Paradise Creek. Most of the water from the Pueblo San Diego and Sweetwater HUs drain to San Diego Bay, although a portion of the Point Loma hydrologic area drains directly to the Pacific Ocean. The watershed drainage is mainly composed of a group of small local creeks and pipe conveyances, many of which are concrete-lined and drain directly into San Diego Bay.

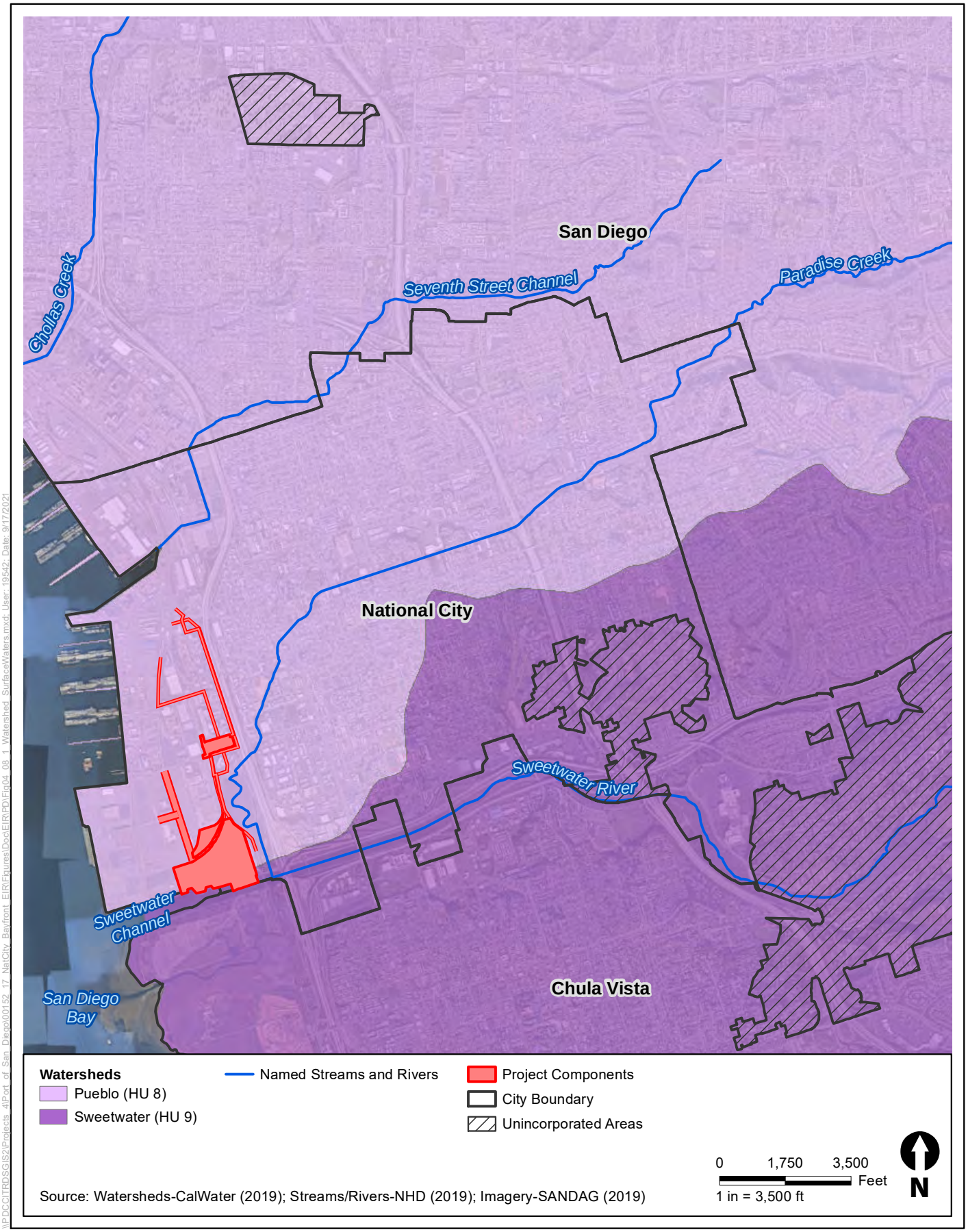

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Figure 4.8-1
Watershed and Surface Waters Map
National City Bayfront Projects & Plan Amendments EIR

4.8.2.2 Surface Water Quality

San Diego Bay and Sweetwater Channel are the receiving water bodies for the project site. There were no impairments designated for Sweetwater Channel, which is located in the southern portion of the project site. Paradise Marsh is directly east of the project site. Paradise Creek is north and south of Sweetwater Channel. Water quality in San Diego Bay is influenced by processes and activities that take place within the Pueblo San Diego and Sweetwater HUs. The creeks in the watershed are highly affected by urban runoff, such as contaminants from roadways, industry, and other urban sources. Paradise Creek is listed as a 303(d)-impaired water body for phosphorus and selenium. Paleta Creek and the mouth of the creek in San Diego Bay, approximately 1.5 miles north of the project site, are listed as 303(d)-impaired water bodies for copper and lead (SWRCB 2019). Chollas Creek and the mouth of the creek in San Diego Bay, approximately 2.5 miles north of the project site, are listed as 303(d)-impaired water bodies for bacteria, various trace metals, and aquatic toxicity (Project Clean Water 2021). However, the proposed project would not contribute to pollutant impairments within Chollas Creek or Paleta Creek at the San Diego Bay shorelines. The most significant sources of pollutants affecting the beneficial uses of San Diego Bay are urban and agricultural runoff, resource extraction, septic systems, and marinas and boating activities (Project Clean Water 2021).

As shown in Table 4.8-1, water bodies with 303(d)-listed impairments with potential to be affected by the proposed project include San Diego Bay and Paradise Creek (east and south of the project site) based on the 2018 California Integrated Report (SWRCB 2018).

Table 4.8-1. 303(d)-Listed Impairments for Water Bodies Within the Project Vicinity

Reach	303(d)-listed Impairments	Source	Estimated TMDL Completion Date
Paradise Creek	Phosphorus	Unknown	2023
	Selenium	Unknown	2021
San Diego Bay	Mercury	Unknown	2027
	PCBs	Unknown	2019
	PAHs	Unknown	2025

Source: SWRCB 2018.
PCBs = polychlorinated biphenyls; PAHs= Polycyclic aromatic hydrocarbons; TMDL = total maximum daily load.

The entirety of San Diego Bay remains on the 303(d) list as impaired for polychlorinated biphenyls (PCBs) in fish tissue as a result of storm drains that drain the former bayside Teledyne Ryan Aeronautical Facility in Convair Lagoon, approximately 6 miles northwest of the project site. Teledyne Ryan Aeronautical Facility proposed and constructed a 7-acre submerged containment structure to isolate (cap) the PCB-bearing sediment and prevent the benthic burrowing organisms from further PCB exposure. The company also cleaned its landside facility and storm drains. These actions abated the effects of historic PCB discharges into Convair Lagoon; however, San Diego Bay remains impaired (San Diego RWQCB 2013). PAHs, found in San Diego Bay, are a class of chemicals that occur naturally in coal, crude oil, and gasoline. They also are produced when coal, oil, gas, wood, garbage, and tobacco are burned. San Diego Bay remains on the 303(d) list as impaired for mercury. Sources of mercury include atmospheric deposition, contaminated sediments, historic land management activities, and urban runoff.

4.8.2.3 Drainage Patterns

The project site and surrounding area includes dense urban development and associated infrastructure (e.g., roads, sidewalks, gutters); therefore, the majority of the drainage area can be classified as highly impervious. The existing site development consists of asphalt parking lots, a restaurant facility, an Aquatic Center, rail operations, and parkland. The receiving water bodies for surface flow from the project site are San Diego Bay and Sweetwater Channel. Much of the surface runoff that discharges into San Diego Bay is from upland areas within the Pueblo San Diego and Sweetwater HU. A large portion of the existing project site drains via overland sheet flow into San Diego Bay and Sweetwater Channel or through an existing underground storm drain system. Based on review of the City's municipal separate storm sewer system (MS4) Municipal Inventory (City 2020) and the District's MS4 Map (District 2018b), the project site is underlain by both City and District (including tenant influenced) storm drain lines that discharge directly to San Diego Bay and Sweetwater Channel. Refer to Figure 4.8-2.

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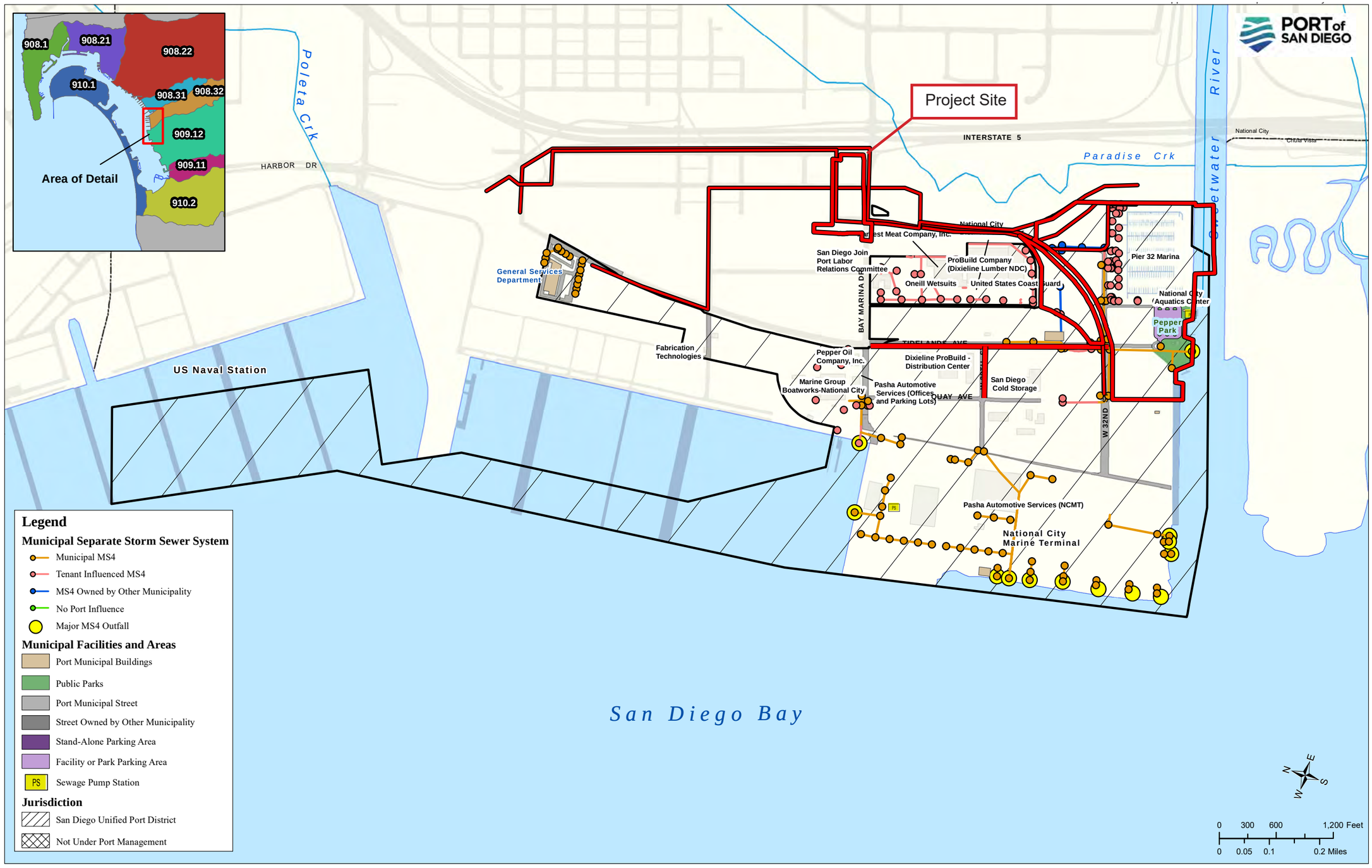

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Figure 4.8-2
Storm Drain Map
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4.8.2.4 Groundwater

The project site is located within the Coastal Plain of San Diego Groundwater Basin (Basin Number 9-033). The Coastal Plain of San Diego groundwater basin boundary represents the area underlain by the San Diego Formation. The basin is bound on the west by San Diego Bay and the Pacific Ocean. The basin is bound on the south by the international border with Mexico and is bound on the north by the alluvium of the Mission Valley Basin. The basin is bound on the east by the La Nacion fault and the lateral extents of the San Diego Formation and the alluvial areas in Otay Valley and Sweetwater Valley. The surface waters are drained westerly towards the Pacific Ocean by the Sweetwater River, the Otay River, the Tijuana River, and various creeks (DWR 2018).

Groundwater Level

Groundwater storage capacity of the basin is estimated to be about 13,000 acre-feet in Quaternary alluvium and about 960,000 acre-feet in the San Diego Formation, for a total capacity of approximately 973,000 acre-feet. Annual groundwater production is estimated at 900 acre-feet per year from Quaternary alluvium and about 2,000 acre-feet per year from the San Diego Formation. Recharge is derived from the runoff of seasonal precipitation in the upper reaches of the Sweetwater River Valley, discharge from the Sweetwater Reservoir, and underflow from the reservoir. Subsurface flow may also contribute recharge (DWR 2004).

Groundwater level data showed that the groundwater surface in the early 1980s was relatively stable, and higher than in the years preceding 1959. This is attributed to a decrease in pumping as a result of importing water from the Colorado River. A study by the Sweetwater Authority indicates that water levels in production wells near the City have remained stable since about 1957 (DWR 2004).

Groundwater Quality

Groundwater quality is of a sodium-calcium chloride character, with a total dissolved solids (TDS) concentration ranging from 300 to more than 50,000 parts per million. Within the San Diego Formation, the water is of a sodium chloride character and the TDS content ranges from 600 to 1,600 milligrams per liter (mg/L). Data from nine public supply wells show TDS concentrations ranging from 1,249 to 3,320 mg/L, with an average of approximately 2,114 mg/L. In general, TDS, chloride, and sodium content of the groundwater exceed the recommended limits for drinking water (DWR 2004).

4.8.2.5 Water-Related Hazards

Flooding

Flood hazard areas on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) are identified as a Special Flood Hazard Area. As shown in FEMA FIRM No. 06073C1911G, most of the project site is outside the FEMA 100-year floodplain (FEMA 2012). However, as shown in FEMA FIRM No. 06073C1913G, portions of the project site, including part of Pepper Park, is within Flood Zone AE, which is an area subject to flooding during the 100-year storm event (1% annual chance of flooding where base flood elevations (BFE) and flood hazard factors are determined). Refer to Figure 4.8-3.



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Figure 4.8-3
Flood Zone Map
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Storm Surges and Tsunamis

A tsunami is a series of traveling ocean waves of great length and long period, which are generated by disturbances associated with earthquakes in oceanic and coastal regions. The project site is adjacent to Sweetwater Channel, approximately 0.41 mile west of San Diego Bay, which opens to the Pacific Ocean. Coronado is between the project site and the ocean. Major water bodies are exposed to more flux in tides and may therefore have an increased risk of flooding during a 100-year flooding event and tsunami. The project site is partially within a designated tsunami hazard zone; the Pier 32 Marina (GB Capital Component), which includes the commercial recreation development site in the Balanced Plan, is within the tsunami zone (Department of Conservation 2009).

4.8.3 Applicable Laws and Regulations

This section provides an overview of the pertinent federal, state, and local policies governing hydrology and water quality for the proposed project.

4.8.3.1 Federal

Clean Water Act

The primary goals of the Clean Water Act (CWA) are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. The U.S. Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The CWA of 1972 (33 United States Code [USC] 1251–1387) is the primary federal law that governs and authorizes water quality control activities by EPA as well as the states. The federal CWA of 1977 (33 USC 1251 et seq.), which amended the federal Water Pollution Control Act of 1972, established the basic structure for regulating discharges of pollutants into the waters of the United States (not including groundwater). Under the CWA, it is unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a National Pollutant Discharge Elimination System (NPDES) permit is obtained and implemented within compliance. In addition, the CWA requires the states to adopt water quality standards for receiving water bodies and to have those standards approved by EPA. Water quality standards consist of designated beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply, fishing), along with water quality criteria necessary to support those uses.

Section 303: Impaired Water Bodies (303(d) list) and Total Maximum Daily Loads

Under Section 303(d) of the CWA, the State Water Resources Control Board (SWRCB) is required to develop a list of impaired water bodies that do not meet water quality standards (promulgated under the National Toxics Rule [NTR] or the California Toxics Rule [CTR]) after the minimum technology-based effluent limitations have been implemented for point sources. Lists are to be priority ranked for development of a total maximum daily load (TMDL), which is a calculation of the total maximum amount of a pollutant that a water body can receive on a daily basis and still safely meet water quality standards. The California RWQCBs and EPA are responsible for establishing TMDL waste-load allocations and incorporating improved load allocations into water quality control plans, NPDES permits, and waste discharge requirements. Section 305(b) of the CWA requires that states assess the status of water quality conditions within the state in a report to be submitted every 2 years.

Both CWA requirements are being addressed through the development of a 303(d)/305(b) Integrated Report, which would address both an update to the 303(d) list and a 305(b) assessment of statewide water quality. The SWRCB developed a statewide 2018 California Integrated Report based upon the Integrated Reports from each of the nine RWQCBs. The 2018 California Integrated Report was approved by the SWRCB at a public hearing on October 20, 2020, and EPA issued its final decision and approval on June 9, 2021.

All of the 303(d) listed impaired waters with potential to be affected by the proposed project would be evaluated as part of the project, and minimization measures would be implemented to protect waters from further water quality impairment.

Section 402: National Pollutant Discharge Elimination System Permits

Section 402(p) of the CWA was amended in 1987 to require EPA to establish regulations for permitting of municipal and industrial (including active construction sites) stormwater discharges under the NPDES permit program. EPA published final regulations for industrial and municipal stormwater discharges on November 16, 1990. The NPDES program requires all industrial facilities and municipalities of a certain size that discharge pollutants into waters of the United States to obtain a permit. Stormwater discharges in California are commonly regulated through general and individual NPDES permits, which are adopted by the SWRCB or RWQCBs and are administered by the RWQCBs. EPA requires NPDES permits to be revised to incorporate waste-load allocations for TMDLs when the TMDLs are approved (40 Code of Federal Regulations [CFR] 122).

NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, or other activities.

The Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component would be required to comply with the local NPDES Permit, described below under Section 4.8.3.3, *Local*.

Section 404: Permits For Dredged or Fill Material

Under Section 404, the U.S. Army Corps of Engineers (USACE) and EPA regulate the discharge of dredged and fill materials into the waters of the United States. These waters are primarily defined as navigable waterways or water features (including wetlands) that have a significant nexus to navigable waters. Project sponsors must obtain authorization from USACE for all discharges of dredged or fill materials into waters of the United States before proceeding with a proposed activity. Individual Section 404 permits may only be issued for a least environmentally damaging practicable alternative. Compliance with CWA Section 404 requires compliance with several other environmental laws and regulations. USACE cannot issue an individual permit or verify the use of a general permit until the requirements of the National Environmental Policy Act of 1969, Endangered Species Act, Coastal Zone Management Act, and National Historic Preservation Act have been met. Additionally, no permit can be issued or verified until a water quality certification, or waiver of certification, has been issued pursuant to CWA Section 401.

The GB Capital Component of the proposed project is anticipated to require a Section 404 Permit from USACE.

Section 401: Water Quality Permits

Under Section 401 of the CWA, an applicant for a Section 404 permit to discharge dredged or fill material into waters of the United States must first obtain a certificate from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to either grant water quality certification or waive the requirement is delegated by the SWRCB to the nine RWQCBs.

The GB Capital Component of the proposed project is anticipated to require a Section 401 Permit from the SWRCB.

Rivers and Harbors Appropriation Act (Section 10)

The Rivers and Harbors Appropriation Act of 1899, Section 408 (33 U.S. Code 408) is a primary federal law regulating activities that may affect navigation on the nation's waterways. Section 10 of the Rivers and Harbors Act grants USACE control over obstructions to navigable waters of the United States and gives USACE exclusive authority to approve construction of smaller structures, such as wharves, booms, and bulkheads, as well as to approve dredging and filling operations. Section 10 of the Rivers and Harbors Appropriation Act requires permits for all structures (such as rip-rap) and activities (such as dredging or pile driving). Section 408 applies to work within flood control channels maintained by USACE.

The GB Capital Component of the proposed project would require Section 10 and Section 408 Permits from USACE.

Federal Emergency Management Agency

FEMA administers the National Flood Insurance Program to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA also issues FIRMs that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection is established by FEMA. FEMA's minimum level of flood protection for new development is the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year.

Additionally, FEMA has developed requirements and procedures for evaluating earthen levee systems and mapping the areas affected by those systems. Levee systems are evaluated for their ability to provide protection from 100-year flood events, and the results of this evaluation are documented in the FEMA Levee Inventory System. Levee systems must meet minimum freeboard standards and must be maintained according to an officially adopted maintenance plan. Other FEMA levee system evaluation criteria include structural design and interior drainage.

4.8.3.2 State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (embodied in the California Water Code) of 1969 (Porter-Cologne Act) is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the state must adopt water quality policies, plans, and objectives that protect its waters for the use and enjoyment of the people. Under the California Water Code, the State of California is divided into nine regions governed by RWQCBs that, under the guidance and review of the SWRCB, implement and enforce provisions of the California Water Code and the CWA. The project site is located in Region 9, the San Diego Region, and governed by the San Diego RWQCB.

The Porter-Cologne Act also requires waste dischargers to notify the RWQCBs of their activities through the filing of Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, NPDES permits, Section 401 water quality certifications, or other approvals.

Section 13050 of the California Water Code defines what is considered pollution, contamination, or nuisance. Briefly defined, pollution means an alteration of water quality such that it unreasonably affects the beneficial uses of water. Contamination means an impairment of water quality to the degree that it creates a hazard to public health. Nuisance is defined as anything that is injurious to health, is offensive to the senses, or is an obstruction to property use, and which affects a considerable number of people.

SWRCB Construction General Permit

Construction activities that disturb 1 acre or more of land must obtain coverage under the SWRCB Construction General Permit (Order 2009-0009-DWQ as amended by Order 2010-0014-DWQ and Order 2012-006-DWQ). Under the terms of the permit, applicants must file complete and accurate Notice of Intent and Permit Registration Documents with the SWRCB. Applicants must also demonstrate conformance with applicable construction best management practices (BMPs) and prepare a construction Storm Water Pollution Prevention Plan (SWPPP) containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project site.

The Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component would be required to comply with the Construction General Permit because it would disturb over 1 acre during construction.

4.8.3.3 Local

Water Quality Control Plan (Basin Plan)

The preparation and adoption of water quality control plans (Basin Plans) is required by the California Water Code (Section 13240) as prescribed by the CWA. Section 303 of the CWA requires states to adopt water quality standards that "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses." According to Section

13050 of the California Water Code, Basin Plans consist of a designation or establishment of beneficial uses to be protected, water quality objectives to protect those uses, and a program of implementation needed for achieving the objectives for the waters within a specified area. Because beneficial uses, together with their corresponding water quality objectives, can be defined per federal regulations as water quality standards, the Basin Plans are regulatory references for meeting the state and federal requirements for water quality control.

Beneficial Uses

The San Diego RWQCB has designated Beneficial Uses and Water Quality Objectives for water bodies under its jurisdiction (San Diego RWQCB 2016). They are defined as the uses of water necessary for the survival or well-being of humans, plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals of mankind. Examples include drinking, swimming, industrial, and agricultural water supply, and the support of fresh and saline aquatic habitats (San Diego RWQCB 2016).

Because of the project site's location, the receiving waters are limited to San Diego Bay, the designated beneficial uses of which include the following.

- Industrial Service Supply (IND) includes use of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well repressurization.
- Navigable (NAV) includes uses of water for shipping, travel, or other transportation by private, military, or commercial vessels.
- Contact Water Recreation (REC1) includes uses of water for recreational activities that involve body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and SCUBA diving, surfing, white water activities, fishing, or the use of natural hot springs.
- Non-contact Water Recreation (REC2) includes the uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.
- Commercial and Sport Fishing (COMM) includes the uses of water for commercial or recreational collection of fish, shellfish, or other organisms including, but not limited to, uses involving organisms intended for human consumption or bait purposes.
- Preservation of Biological Habitats or Special Significance (BIOL) includes uses of water that support designated areas or habitats.
- Estuarine Habitat (EST) includes uses of water that support estuarine ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, or shorebirds).
- Wildlife Habitat (WILD) includes uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife, or wildlife water and food sources.

- Rare, Threatened, or Endangered Species (RARE) includes uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered.
- Marine Habitat (MAR) includes uses of water that support marine ecosystems including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, fish, shellfish, or wildlife (e.g., marine mammals, shorebirds).
- Migration of Aquatic Organisms (MIGR) includes uses of water that support habitats necessary for migration, acclimatization between fresh and salt water, or other temporary activities by aquatic organisms, such as anadromous fish.
- Spawning, Reproduction, and/or Early Development (SPWN) includes uses of water that support high-quality habitats suitable for reproduction, early development, and sustenance of marine fish and/or cold freshwater fish.
- Shellfish Harvesting (SHELL) includes uses of water that support habitats suitable for the collection of filter-feeding shellfish (e.g., clams, oysters, and mussels) for human consumption, commercial, or sport purposes.

The designated beneficial uses of the Sweetwater Groundwater Basin include the following.

- Municipal and Domestic Supply (MUN) includes uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply.
- Agricultural Supply (AGR) includes uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.
- Industrial Service Supply (IND), described above.

Water Quality Objectives

The Basin Plan sets narrative and numerical water quality objectives that must be attained or maintained to protect beneficial uses and conform to the state's degradation policy. The water quality objectives are the levels of water quality constituents that must be met to protect the beneficial uses (San Diego RWQCB 2016). Table 4.8-2 includes a summarized list of these water quality constituents that received narrative or numerical concentration objectives. Surface- and groundwater quality objectives for the Pueblo San Diego HU are shown in Table 4.8-3. A complete and detailed list of water quality objectives can be found in the Basin Plan. Each water quality constituent may result in varied objectives conditional on the beneficial use of the waters.

Table 4.8-2. Water Quality Constituents

Bacteria – Total coliform, fecal coliform, E. Coli, and enterococci	pH
Biostimulatory Substances	Phenolic Compounds
Boron	Radioactivity
Chlorides	Secondary Drinking Water
Color	Standards[2]
Dissolved Oxygen	Sediment
Floating Material	Sodium
Fluoride	Sulfate
Inorganic Chemicals[1]	Suspended and Settleable Solids
Iron	Tastes and Odors
Manganese	Temperature
Methylene Blue–Activated Substances	Total Dissolved Solids
Nitrate	Toxicity
Oil and Grease	Toxic Pollutants[3]
Organic Chemicals	Trihalomethanes
Pesticides	Turbidity

Source: San Diego RWQCB 2016

[1] Waters designated for use as domestic or municipal supply (MUN) cannot contain concentrations of inorganic chemicals in excess of the maximum contaminant levels set forth in California Code of Regulations, Title 22, Table 64431-A of section 64431 (Inorganic Chemicals), which is incorporated by reference into the Basin Plan. Inorganic chemicals include aluminum, antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, nitrate, nitrate+nitrite, nitrite, selenium, and thallium.

[2] Water designated for use as domestic or MUN cannot contain concentrations of chemical constituents in excess of the maximum contaminant levels specified in Table 64449-A of section 64449 of Title 22 of the California Code of Regulations (Secondary Maximum Contaminant Levels, Consumer Acceptance Limits), which is incorporated by reference into the Basin Plan. Includes aluminum, color, copper, corrosivity, foaming agents, iron, manganese, methyl tert-butyl ether (MTBE), odor threshold, silver, thiobencarb, turbidity and zinc.

[3] EPA promulgated a final rule prescribing water quality criteria for toxic pollutants in inland surface waters, enclosed bays, and estuaries in California on May 18, 2000 (The California Toxics Rule or "CTR" [40 CFR 131.38]). CTR criteria constitute applicable water quality criteria in California. In addition to the CTR, certain criteria for toxic pollutants in the National Toxics Rule [40 CFR 131.36] constitute applicable water quality criteria in California as well. The Shelter Island Yacht Basin portion of San Diego Bay is designated as an impaired water body for dissolved copper pursuant to Clean Water Act section 303(d). A TMDL has been adopted to address this impairment.

Table 4.8-3. Surface- and Groundwater Quality Objectives

	Constituent (mg/L or as noted)												
	TDS	Cl	SO_4	% N	N&P	Fe	Mn	MBAS	B	Odor	Turb NTU	Color Units	F
Surface Water Quality Objectives													
Pueblo San Diego	--	--	--	--	--	--	--	--	--	None	20	20	-
Pueblo San Diego (National City)	--	--	--	--	--	--	--	--	--	None	20	20	-
Groundwater Quality Objectives													
Pueblo San Diego (National City)	750	250	250	60	45	0.3	0.05	0.5	0.75	None	5	15	1.0

Source: San Diego RWQCB 2016

B = boron; Cl = chlorine; F = fluoride; Fe = iron; HA = hydrologic area; MBAS = methlylene blue activated substances; mg/L = milligrams per liter; Mn = manganese; N = nitrogen; N&P = nitrogen and phosphorus; SO_4 = sulfate; TDS = total dissolved solids; Turb NTU = turbidity (reported in nephelometric turbidity units).

RWQCB Municipal Permit

The Municipal Stormwater Permit (Order No. R9-2013-0001 as amended by Order Nos. R9-2015-001 and R9-2015-0100) is an NPDES permit that requires the owners and operators of MS4s within the San Diego region to implement management programs to limit discharges of pollutants and non-stormwater discharges to and from their MS4 from all phases of development. The Municipal Stormwater Permit requires the District, the City, and other "co-permittees" to develop watershed based Water Quality Improvement Plans (WQIPs). The Municipal Stormwater Permit emphasizes watershed program planning and program outcomes. The intent of the Municipal Stormwater Permit is to enable each jurisdiction to focus its resources and efforts to:

- Reduce pollutants in stormwater discharges from its MS4;
- Effectively prohibit non-stormwater discharges to its MS4; and
- Achieve the interim and final WQIP numeric goals.

The Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component would be required to comply with the Municipal Stormwater Permit requirements as well as any specific WQIP requirements and BMPs identified by the District to be implemented in compliance with the Municipal Stormwater Permit (as stated in the sections below).

General Waste Discharge Requirements For Groundwater Extractions Discharges (Order No. R9-2015-0013)

Order No. R9-2015-0013 is intended to cover temporary discharges of groundwater extraction wastes to San Diego Bay, and its tributaries under tidal influence, from groundwater extraction due to construction and other groundwater extraction activities. Dischargers must meet the applicable criteria listed in the permit to be subject to waste discharge requirements under this permit. Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of the permit. The discharge of groundwater extraction waste from any site cannot, separately or jointly with any other discharge, cause violations of certain water quality objectives in San Diego Bay.

The Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component would be required to comply with Order No. R9-2015-0013 requirements if dewatering is required during construction.

San Diego Bay Watershed Quality Improvement Plan

The Municipal Stormwater Permit requires the development of watershed specific WQIPs. This project would fall under the San Diego Bay WQIP. The purpose of the WQIP is to guide the District and other Phase I Municipalities' Jurisdictional Runoff Management Programs (JRMP) toward improving water quality in MS4 discharges and receiving waters. In the WQIP, priorities and goals are established, and each jurisdiction identified strategies to assist in attaining the goals. This approach establishes the foundation that the District uses to develop and implement its JRMP. The District implements the WQIP in collaboration with other local agencies that have jurisdiction within the San Diego Bay Watershed Management Area, which comprises three hydrologic units: Pueblo San Diego, Sweetwater River, and Otay River.

The Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component would be required to follow any specific actions or BMPs set forth in the WQIP.

San Diego Unified Port District JRMP

Under the Municipal Stormwater Permit, each jurisdiction is to prepare a JRMP, which includes a component that addresses issues related to construction activities, a component that addresses development and redevelopment, and a component that addresses issues related to existing development. Additionally, each co-permittee prepares and submits an annual report that describes the implementation of programs and strategies to reduce the discharge of pollutants of concern to the MS4 and receiving waters to the maximum extent practicable.

The District's JRMP serves as an informational document that provides an overall account of the program to be conducted by the District during the 5-year life of the Municipal Permit. The District's JRMP has been developed to meet the conditions of the Municipal Permit and to assist the District in achieving the goals identified in the WQIP. Port-specific WQIP based strategies have been incorporated into the JRMP. The JRMP program's focus is on controlling stormwater discharges to the MS4 with the overall goal of achieving receiving water quality improvements. The District has developed a list of BMPs that are applicable to all persons, activities, and operations taking place on District tidelands. The JRMP utilizes District-specific jurisdictional activities as well as watershed-based strategies. Enforcement of the JRMP helps to prevent stormwater pollutants from entering into the local storm drains and ultimately San Diego Bay.

The District has developed a list of pollution prevention BMPs applicable to industrial and commercial facilities on District tidelands as required by the Municipal Permit. Because pollution prevention BMPs eliminate pollutants at their source, they are a preferred means of preventing discharge of priority pollutants into the receiving waters. The list of pollution prevention BMPs includes the following.

- Keep waste containers covered or lids closed (trash).
- Minimize outdoor storage (trash, metals).
- Capture, contain, and/or treat wash water (bacteria, metals).
- Conduct employee training (bacteria, trash, metals).

In addition, Table 7-4 of the JRMP provides an extensive list of minimum BMPs for commercial and industrial facilities. Categories of BMPs include general operations and housekeeping, non-stormwater management, waste handling and recycling, outdoor material storage, outdoor drainage from indoor activity, outdoor parking, vehicles and equipment, education and training, overwater activity, and outdoor activity and operation.

The Balanced Plan, the portion of the GB Capital Component in the District's jurisdiction, the Pasha Rail Improvement Component, Pasha Road Closures Component, and the portion of the Bayshore Bikeway Component that is in the District's jurisdiction would be required to follow all specific actions or BMPs set forth in the JRMP and as detailed in the BMP Design Manual, as applicable to the project.

San Diego Unified Port District BMP Design Manual

The District developed and adopted a jurisdiction-specific local BMP Design Manual to address the requirement of the Municipal Permit. The District's BMP Design Manual identifies updated post-construction stormwater requirements for both tenant- and District-sponsored major maintenance or capital improvement projects as required by the Municipal Permit.

The BMP Design Manual identifies BMP requirements for both standard projects and priority development projects (PDPs) as outlined in the permit. All new development and redevelopment projects are required to implement standard source control and site design BMPs to eliminate or reduce stormwater runoff pollutants. For PDPs, the BMP Design Manual also describes pollutant control BMPs that must be incorporated into the site design and, where applicable, addresses potential hydromodification impacts from changes in flow and sediment supply.

Project applicants must submit a Storm Water Quality Management Plan (SWQMP) accurately describing how the project would meet source control site design and pollutant control BMP requirements. District staff provides technical review of and approve SWQMP documents and drainage design plans to ensure that pollutant control BMP requirements are met. The SWQMP is evaluated for compliance with the Municipal Permit and with design criteria outlined in the District's BMP Design Manual. Once the approval process is complete, the project is able to commence, and routine inspections are conducted throughout the duration of the project construction. Upon project completion, the engineer of record must certify that the pollutant control BMPs were installed per the approved SWQMP. After installation, an approved maintenance plan (part of the SWQMP) details the maintenance inspection frequency and maintenance triggers.

The proposed project is a PDP, because the Balanced Plan, a portion of the GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and a portion of the Bayshore Bikeway Component fall within the District's jurisdiction. Therefore, a SWQMP and treatment control BMPs are required.

Source Control and Site Design Requirements

The Municipal Stormwater Permit directs the District to require the development of a SWQMP during the planning process for all development projects. Both standard and PDP projects must implement source control and site design requirements.

General requirements for the BMPs to be included in the SWQMP include the following.

1. Onsite BMPs must be located so as to remove pollutants from runoff prior to its discharge to any receiving waters, and as close to the source as possible.
2. Structural BMPs must not be constructed within waters of the United States.
3. Onsite BMPs must be designed and implemented with measures to avoid the creation of nuisance or pollution associated with vectors (e.g., mosquitos, rodents, flies).

Source control BMPs must be implemented at all development projects where applicable and feasible. Source control BMP requirements include the following.

1. Prevention of illicit discharges into the MS4.
2. Storm drain system stenciling or signage.
3. Protection of outdoor material storage areas from rainfall, run-on, runoff, and wind dispersal

4. Protection of materials stored in outdoor work areas from rainfall, run-on, runoff, and wind dispersal.
5. Protection of trash storage areas from rainfall, run-on, runoff, and wind dispersal.
6. Use of any additional BMPs determined to be necessary by the District to minimize pollutant generation at each project.

Site Design BMPs must be implemented at all development projects where applicable and feasible. Site Design BMP requirements include the following.

1. Maintenance or restoration of natural storage reservoirs and drainage corridors (including topographic depressions, areas of permeable soils, natural swales, and ephemeral and intermittent streams).
2. Buffer zones for natural water bodies (where buffer zones are technically infeasible, project applicant is required to include other buffers such as trees, access restrictions, etc.).
3. Conservation of natural areas within the project footprint including existing trees, other vegetation, and soils.
4. Construction of streets, sidewalks, or parking lot aisles to the minimum widths necessary, provided public safety is not compromised.
5. Minimization of the impervious footprint of the project.
6. Minimization of soil compaction to landscaped areas.
7. Disconnection of impervious surfaces through distributed pervious areas.
8. Landscaped or other pervious areas designed and constructed to effectively receive and infiltrate, retain, and/or treat runoff from impervious areas, prior to discharging to the MS4.
9. Small collection strategies located at, or as close as possible to, the source (i.e., the point where stormwater initially meets the ground) to minimize the transport of runoff and pollutants to the municipal and receiving waters.
10. Use of permeable materials for projects with low traffic areas and appropriate soil conditions.
11. Landscaping with native or drought-tolerant species.
12. Collecting and using precipitation.

Stormwater Pollutant Control Requirements for PDPs

Redevelopment projects that create or replace 2,500 square feet of impervious surface adjacent to an environmentally sensitive waterbody (i.e., San Diego Bay) and/or fit into a specific use category as identified in the District's BMP Design Manual are categorized as PDPs. In addition to the site design and source control BMPs discussed above, PDPs are required to implement stormwater pollutant control BMPs to reduce the quantity of pollutants in stormwater discharges. Stormwater pollutant control BMPs are engineered facilities that are designed to retain (i.e., intercept, store, infiltrate, evaporate, and evapotranspire) or biofilter stormwater runoff produced from a 24-hour, 85th percentile storm event (Design Capture Volume) on the project site. Section 4.5.2 of the JRMP identifies the PDP categories as defined by the Municipal Permit and outlined in the District's BMP Design Manual.

Construction-Related Best Management Practices

The Municipal Permit directs the District to require minimum BMPs at all construction and grading projects. The minimum BMPs are required to ensure a reduction of potential pollutants from the project site to the maximum extent practicable and to effectively prohibit non-stormwater discharges from construction sites to the MS4. These BMPs also ensure that all construction and grading activities are in compliance with applicable District ordinances and other environmental laws and are supportive of the WQIP goals.

In addition to Municipal Permit construction BMP requirements, District projects greater than 1 acre are required to comply with the state's Construction General Permit (CGP). The CGP requires SWPPP development and implementation, sediment control and erosion control BMP implementation, and regular inspections and reporting. Additional discussion of CGP requirements is found below in Section 4.8.4.3, *Project Impacts and Mitigation Measures*.

The required minimum BMPs fall into several major categories as outlined in the Municipal Permit, including project planning, good site management, non-stormwater management, erosion control, sediment control, run-on and runoff controls, and, where applicable, active/passive sediment treatment. The BMPs to be implemented at a project must be site specific, seasonally appropriate, and construction phase appropriate. Notwithstanding seasonal variation, projects occurring during the dry season would be required to plan for and must be able to address rain events that may occur.

The District also included minimum BMPs that support the WQIP priorities and integrate WQIP strategies PO-12 and PO-13.[1] Good Housekeeping BMPs prevent discharges of WQIP high-priority pollutants including metals, bacteria, and trash to the MS4. Additionally, pursuant to WQIP Optional strategy PO-18,[2] the District requires sites to cover construction material stockpiles that contain metals, such as treated timber during wet weather. Table 4.8-4 provides a list of the minimum BMPs for construction sites identified by the District and the City.

Table 4.8-4. Minimum BMPs For Construction Sites

BMP Category	BMP
Project Planning	Minimization of areas that are cleared and graded to only the portion of the site that is necessary for construction
	Develop and implement a SWPPP or Construction BMP Plan
	Contractor Training (formal training or District staff training)
	Scheduling (EC-1)*
Non-Stormwater Management	Water Conservation Practices (NS-1)
	Illicit Connection/Illegal Discharge Detection and Reporting (NS-6)
	Dewatering Operations (NS-2)
	Paving and Grinding Operations (NS-3)
	Potable Water/Irrigation (NS-7)
	Vehicle and Equipment Cleaning (NS-8)

[1] PO-12 calls for the implementation of the Core JRMP Program to require and to oversee implementation of BMPs during the construction phase of land development. PO-13 calls for the addition of a construction BMP that requires covering construction materials (metals and treated wood) during wet weather.

[2] Text in the JRMP identifies PO-18; however, there is a discrepancy between the text and PO-13 identified in Table 5.3 of the JRMP.

BMP Category	BMP
	Vehicle and Equipment Fueling (NS-9)
	Vehicle and Equipment Maintenance (NS-10)
Good Housekeeping/ Waste Management	Cover construction material stockpiles such as treated lumber during wet weather (WQIP Strategy PO-13[1])
	Material delivery and storage (WM-1)
	Material Use (WM-2)
	Solid Waste Management (WM-5)
	Stockpile Management (WM-3)
	Spill Prevention and Control (WM-4)
	Hazardous Waste Management (WM-6)
	Contaminated Soil Management (WM-7)
	Concrete Waste Management (WM-8)
	Sanitary/Septic Waste Management (WM-9)
	Construction Road Stabilization (TC-2)
	Stabilized Construction Entrances (TC-1)
	Entrance/Outlet Tire Wash (TC-3)
Erosion Control[2] (choose at least one or a combination based on site conditions)	Preservation of Existing Vegetation (EC-2)
	Minimization of Exposure Time of Disturbed Soil Areas
	Scheduling (EC-1)[3]
	Hydraulic Mulching (EC-3)
	Soil Binders – (EC-5)
	Straw Mulches (EC-6)
	Wood Mulching – (EC-8)
	Geotextiles and Mats (EC-7)
	Wind Erosion Control (WE-1)
	Soil Preparation/Roughening (EC-15)
	Preservation of Natural Hydrologic Features Where Feasible
	Permanent Revegetation or Landscaping as Early as Feasible
	Hydroseeding (EC-4)*
	Wood Mulching (EC-8)*
	Compost Blankets (EC-14)*
Sediment Control (choose at least one or a combination based on site conditions)	Silt Fence (SE-1)
	Street Sweeping and Vacuuming (SE-7)
	Sand Bag Barrier (SE-8)
	Storm Drain Inlet Protection (SE-10)
	Sediment Trap (SE-3)
	Sediment Basin (SE-2)
	Check Dams (SE-4)
	Fiber Rolls (SE-5)
	Gravel Bag Berms (SE-6)
	Compost Socks and Berms (SE-13)
Run-on and Runoff Control	Protect site perimeter to prevent run-on from entering the site and site runoff

Source: District 2018b, City 2019.

[1] Text in the JRMP identifies PO-18; however there is a discrepancy between the text and PO-13 identified in Table 5.3 of the JRMP

[2] Erosion controls must be implemented in all inactive disturbed soil areas. An inactive disturbed soil area is where construction activities such as grading, clearing, excavation, or disturbances to ground are not occurring and those that have been active and are not scheduled to be re-disturbed for at least 14 days.
[3] Limitation of grading to a maximum disturbed area, determined by the District to be 5 acres during the rainy season and 17 acres during the non-rainy season, before either temporary or permanent erosion controls are implemented to prevent stormwater pollution (see Section 5.6.1 of the JRMP for additional information).
*These BMPs are specific to the City's Storm Water BMP Design Manual.

San Diego Unified Port District, Article 10

The District Stormwater Management and Discharge Control Ordinance (Article 10), prohibits the deposit or discharge of any chemicals or waste to the tidelands or San Diego Bay and makes it unlawful to discharge pollutants directly into non-stormwater or indirectly into the stormwater conveyance system. The Balanced Plan, the portion of the GB Capital Component in the District's jurisdiction, the Pasha Rail Improvement Component, Pasha Road Closures Component, and the portion of the Bayshore Bikeway Component within the District's jurisdiction would be obligated to abide by Article 10.

Where enforcement is required to maintain compliance, the District would use the enforcement authority established by Article 10, which enables the District, including District inspectors, to prohibit discharges and require BMPs so that discharges on tidelands do not cause or contribute to water quality problems. Article 10 establishes enforcement procedures to ensure that responsible dischargers are held accountable for their contributions and/or flows.

San Diego Unified Port District, Ordinance No. 2681 (In-Water Hull Cleaning Regulations)

The District adopted in-water hull cleaning regulations to reduce or eliminate copper pollution caused by hull cleaning activities in San Diego Bay. Ordinance No. 2681 requires the use of BMPs for any business doing in-water hull cleaning on recreational or commercial boats and requires permits for all hull-cleaning businesses. No person can perform in-water hull cleaning without complying with BMPs. No person can perform in-water hull cleaning that results in a visible paint plume or cloud. The GB Capital Component and the Balanced Plan's modification to existing operational restrictions [in the coastal development permit] at the National City Aquatic Center would be subject to this ordinance.

San Diego Harbor Safety Plan

The San Diego Harbor Safety Plan is designed to provide mariners using the waters of San Diego Bay an up-to-date guide to critical navigation issues that would enhance vessel safety, with the ultimate goal of pollution prevention and protection of the region's valuable resources. This plan has been developed by the San Diego Harbor Safety Committee as mandated in the California Oil Spill Prevention and Response Act of 1990 (Government Code Sections 8574.1 et seq.). The goals of the act are to improve the prevention, removal, abatement, response, containment, clean up, and mitigation of oil spills in the marine waters of California. The act and its implementing regulations (California Code of Regulations, Title 14, Sections 800–802) created harbor safety committees for the major harbors of California to "plan for the safe navigation and operation of tankers, barges, and other vessels within each harbor" by preparing "a harbor safety plan, encompassing all vessel traffic within the harbor."

The plan sections include the following:

- Emergency Response Procedures.
- Best Maritime Practices.
- Geographic Boundaries. A detailed description of the geographical boundaries of the harbor.
- Harbor Conditions. A description of existing and expected conditions of weather, tidal ranges, and other factors.
- Aids to Navigation and Navigational Hazards. An evaluation and list of the aids to navigation in the harbor, and list of navigational hazards.
- Anchorage and Anchorage Management. A description of the existing anchorages and any limitations to those anchorages.
- Communications. A review and evaluation of the adequacy of current ship-to-ship and ship-to-shore communications used in the harbor area.
- Vessel Traffic Patterns. A description of the types of vessels that call on the ports or facilities within the harbor area, and an assessment of current safety issues.
- Tug Escort/Tug Assist. A description of the usage of tug escorts in the harbor, including a procedure for a case-by-case determination of need, based on specific criteria.
- Vessel Traffic Service. A description of the San Diego Marine Information Systems for the harbor area.
- Bridge Management Requirements. An assessment of the physical limitations affecting vertical and horizontal clearances.
- Competitive Aspects. An identification and discussion of the economic impacts of implementing the provisions of the plan.
- Project Funding.
- Enforcement. An analysis of enforcement, and suggested mechanisms to ensure that the provisions of the plan are fully and uniformly enforced with regularity.
- Harbor Safety Committee Recommendations and Accomplishments. Includes Recommendations and actions taken to implement recommendations.
- Implementation. Provides an overview of implementation avenues for the recommendations contained in the Harbor Safety Plan.
- Applicable Regulations and Guidelines. Includes Underkeel Clearance Guidelines, Non-Tank Oil Spill Contingency Plan regulations, and Tug Escort regulations.
- Miscellaneous. Pilotage Evaluation Report, Ballast Water Regulations, Limited Visibility Guidelines, and Underwater Pipelines.

City of National City JRMP

The City's JRMP serves as an informational document that provides an overall approach to improving water quality in its creeks, rivers, and the ocean through reducing discharges of pollutants to the MS4. As the operator of a storm drain system, the City is subject to the same NPDES MS4 Permit issued by the San Diego RWQCB. The MS4 Permit requires the City to reduce pollutants in discharges from its storm drain system to water bodies. Enforcement of the JRMP helps to

prevent stormwater pollutants from entering into the local storm drains and ultimately San Diego Bay.

To reduce pollutants in MS4 discharges to water bodies, the City implements or requires residents, businesses, municipal facilities, and landowners to implement a variety of pollutant-reducing BMPs. Some examples of BMPs include covering potential pollutant sources to prevent contact with rain, employing erosion reduction techniques at construction sites, adjusting sprinklers to eliminate over-irrigation, sweeping streets and parking lots, and building green infrastructure treatment controls such as bioretention planters along streets.

Project components within the City's jurisdiction—including a portion of the GB Capital Component, most of the Bayshore Bikeway Component, and the City Program – Development Component—would be required to follow all specific actions or BMPs set forth in the City's JRMP and as detailed in the City's Storm Water BMP Manual.

City of National City Storm Water BMP Manual

The City adopted a Storm Water BMP Design Manual to be used in conjunction with the City's Storm Water Management and Discharge Control Ordinance (Storm Water Ordinance), codified as the City Municipal Code (NCMC) Chapter 14.22 and the water quality protection provisions of the Grading Ordinance, codified as NCMC Chapter 15.70. The City's BMP Manual provides the City with the legal authority necessary to comply with the requirements of San Diego RWQCB Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 (MS4 Permit). The City's Storm Water BMP Design Manual identifies BMP requirements for construction sites, post-construction sites, and industrial, commercial and municipal facilities, and residential properties.

Construction site BMPs are required to be site specific, seasonally appropriate, and construction phase appropriate. Construction sites are required to show the BMPs they plan to implement on their Erosion Control Plans, which must be prepared in accordance with the BMP standards and the City Municipal Code. Every construction site within the City's jurisdiction is required to select, install, and maintain BMPs that address project planning, erosion control, sediment control, and waste management and good housekeeping to reduce, retain, and manage pollutant discharges to the maximum extent practicable. All new development and redevelopment projects are required to comply with the BMP standards, which include, but are not limited to, site design, source control, and structural BMPs.

Project components within the City's jurisdiction including an area of the GB Capital Component, as well as most of the Bayshore Bikeway Component, and all of City Program – Development Component would be required to comply with the City's stormwater BMPs.

Stormwater Management and Discharge Control Ordinance

The City adopted a Stormwater Management and Discharge Control Ordinance under Chapter 14.22 of the Municipal Code. The Ordinance provides the City with the legal authority to enforce various stated goals regarding water pollution in order to protect and enhance public health and the environment.

City of National City Municipal Code, Chapter 18.24

Chapter 18.24 of the City Municipal Code establishes flood damage prevention measures that seek to promote public health, safety, and general welfare and to minimize public and private losses due to flooding. Uses that pose water or erosion hazards or that result in significant increases in erosion, flood heights, or flood velocities are restricted or prohibited. Alteration of natural protective barriers to flooding such as floodplains and stream channels is controlled, as are development activities such as filling, grading and dredging. The construction of flood barriers that unnaturally divert flood waters or increase flood hazards in other areas is also closely regulated.

4.8.4 Project Impact Analysis

4.8.4.1 Methodology

The proposed project impact analysis focuses on issues related to surface water hydrology, drainage, water-related hazards, and surface- and groundwater quality. The key construction-related impacts were identified and evaluated qualitatively based on the physical characteristics of the project site and the magnitude, intensity, location, and duration of construction activities for both landside and waterside project components. For the landside project components, the surface water hydrology impact analysis considers changes in drainage patterns, changes in stormwater volumes and capacity, creation of new impervious surfaces, implementation of MS4 Permit stormwater pollutant control requirements, and changes in nearby water bodies. The waterside project component flood risk impact analysis considers changes to the existing water use designations to characterize potential effects on flood risk. Impacts of the proposed project on surface water quality were analyzed using available information on potential existing sources of pollution and current water quality conditions in the project area for both landside and waterside project components. These conditions were then compared to potential project-related sources of pollution during construction, such as sediments and other construction materials, and operation, such as operations and maintenance (O&M) activities, trash, and other pollutants generated from the landside project components. In addition, changes to water use designations were evaluated for impacts on surface water quality. The proposed project was analyzed for potential impacts on beneficial uses and water quality objectives (i.e., pollutants of concern) of San Diego Bay receiving waters. Receiving and nearby waters with CWA Section 303(d) impaired water quality were identified, along with the impairment (pollutant/stressor) and an evaluation of whether the impairment has the potential to be further affected by the proposed project.

4.8.4.2 Thresholds of Significance

As noted in Section 4.8.1, *Overview*, CEQA documents are not required to analyze the environment's potential impact on a project, including any residents or users that a project may newly introduce to an existing environmental condition, unless the proposed project, by developing in an area with a known environmental condition, may exacerbate the condition. Examples of a project exacerbating an existing environmental condition specific to hydrology and water quality conditions may include building a structure within the floodway such that flood waters are diverted and cause damage to structures or harm people that would have otherwise not been affected. In this case, because the project would directly affect the existing environment, the conclusion is that the project would exacerbate the existing environmental condition. On the other hand, if the project would build a

structure within the floodway, but would not actually cause any diversion such that the potential to do greater harm to the existing environment is not present, then the project would not exacerbate the condition, even considering that by bringing new residents or users to the area, it may place more people and structures in harm's way.

The following significance criteria are based on Appendix G of the State CEQA Guidelines; they provide the basis for determining significance of impacts associated with hydrology and water quality resulting from the proposed project. The determination of whether a hydrology and water quality impact would be significant is based on the thresholds described below and the professional judgment of the District as Lead Agency based on evidence in the administrative record.

Impacts are considered significant if the proposed project would result in any of the following:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    a. result in substantial erosion or siltation on or off site; or
    b. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site; and
    c. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
4. In flood hazard or tsunami zones, risk release of pollutants due to project inundation.
5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

As discussed in Section IX of the project's Initial Study/Environmental Checklist (Appendix A), Threshold 2 is not included in the analysis below, as it was determined that the proposed project would not result in significant impacts related to groundwater supplies. The rationale that supports this conclusion is summarized in Chapter 6, *Effects Not Found to Be Significant*. Therefore, only Thresholds 1, 3, 4, and 5 are discussed in the impact analysis that follows.

4.8.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.

Impact Discussion

Surface Water

Landside Construction

Construction activities associated with the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component, such as demolition, grading and excavation, filling and compaction, rail improvements, and construction of aboveground facilities and buildings could degrade water quality by increasing polluted stormwater runoff. In case of heavy rain or wind conditions, during excavation or other ground-disturbing activities, erosion and sediment transport from the project site and on- and offsite staging areas could increase. Stormwater runoff (or wind) could carry the exposed or eroded sediments to the storm drain system or directly into San Diego Bay. Erosion and sedimentation affect water quality through interference with photosynthesis; oxygen exchange; and the respiration, growth, and reproduction of aquatic species. Additionally, other pollutants, such as nutrients, trace metals, and hydrocarbons, can attach to sediment and be transported to San Diego Bay, which could contribute to water quality degradation. As such, construction activities could violate water quality standards or waste discharge, and impacts would be potentially significant.

In addition to potential pollutant contributions from disturbed soil areas, the delivery, handling, and storage of construction materials and wastes, as well as the use of construction equipment, could introduce a risk for stormwater contamination that could affect water quality. Spills or leaks from heavy equipment and machinery can result in oil and grease contamination. Some hydrocarbon compound pollution associated with oil and grease can be toxic to aquatic organisms at low concentrations. On- and offsite staging areas or building sites can also be the source of pollution because of the use of paints, solvents, cleaning agents, and metals during construction. Materials from soil excavation could contain hazardous materials that may be exposed to stormwater. Larger pollutants, such as trash, debris, and organic matter, are also associated with construction activities. Furthermore, concrete used for structures, footings, and other paving materials could be potential sources of water quality pollution if any of these materials were spilled or deposited on unprotected surfaces. Other potential effects include health hazards and aquatic ecosystem damage associated with introduction of bacteria, viruses, and vectors if waste management is not adequately implemented. As such, construction activities could violate water quality standards or waste discharge requirements, and impacts would be potentially significant.

If any portion of the proposed project, including the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component, would disturb more than 1 acre of land, compliance with the Construction General Permit would require development and implementation of a SWPPP by a Qualified SWPPP Developer, which would identify which construction BMPs would be

implemented in order to protect stormwater runoff and would include a monitoring plan for measuring BMP effectiveness. BMPs are required to be inspected regularly by a Qualified SWPPP Practitioner. The Qualified SWPPP Practitioner monitors the construction activities to ensure the BMPs listed in the SWPPP are implemented and performing as anticipated.

A variety of construction BMPs would be required to be implemented throughout the various construction phases in order to protect water quality. Several of the minimum construction BMPs are listed in Table 4.8-4. BMPs would include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with stormwater. The construction SWPPP would specify properly designed, centralized storage areas that keep these materials out of the rain. When grading is conducted during the rainy season, the primary BMPs selected would focus on erosion control (i.e., keeping sediment in place) and then on sediment control (i.e., keeping sediment on site). Measures would include a range of stormwater control BMPs, such as implementation of hydromulch or installing sediment controls such as silt fences, staked fiber rolls, and geofabric to prevent silt runoff to storm drains or waterways. Topsoil and backfill would be stockpiled, protected, and replaced at the conclusion of construction activities. Disturbed soil would be revegetated as soon as possible with the appropriate selection and schedule for turf, plants, and other landscaping vegetation.

In addition to the SWPPP, the project proponent would be required to implement the construction BMPs identified in the District's JRMP and the City's JRMP, depending on whether the project component is within the District's or City's jurisdiction. The SWPPP would specify construction BMPs to ensure that water quality standards or waste discharge requirements are not violated. BMPs selected would be designed to comply with the requirements of the District's JRMP, or the City's JRMP, and the Construction General Permit, and would be subject to review and approval by the District. Construction-related measures would include BMPs from the following categories, and as listed in Table 4.8-4.

- Project Planning
- Non-Stormwater Management
- Good Housekeeping/Waste Management
- Erosion Control
- Sediment Control
- Run-on and Run-off Control

Aside from the above categories of BMPs, the District also limits grading within its jurisdiction to a maximum disturbed area of 5 acres during the rainy season (October 1–April 30) and 17 acres during the non-rainy season to prevent discharges of sediment. Within the City's jurisdiction, in addition to minimum BMPs, construction projects must also comply with the requirements of the City's Municipal Code Chapter 15.70 (Grading and Erosion Control). Grading is not permitted during the rainy season on any site if the City Engineer determines that erosion, mudflow, or sediment of silt discharge may adversely affect water quality, downstream properties, drainage courses, storm drains, streets, easements, or public or private facilities or improvements unless an approved erosion and sediment control system has been implemented on the site. Such measures are routinely developed for construction sites and are proven to be effective in reducing pollutant discharges from construction activities. Implementation of the SWPPP during construction would minimize the potential for water quality objectives, standards, and wastewater discharge thresholds

to be violated to be below a level of significance. As required by the District's and City's regulations, the SWPPP would be prepared by a Qualified SWPPP Developer, approved by the District and the City as applicable, and submitted to the SWRCB prior to commencement of construction activities.

Compliance with existing regulatory requirements, such as implementation of erosion control, sediment control, non-stormwater management, and waste management construction BMPs as required by the Construction General Permit, the District's JRMP, and the City's JRMP, would reduce impacts of the proposed project in regard to violation of a water quality standard or waste discharge requirement to less-than-significant levels; no mitigation measures are required.

In-Water Construction

Construction of the in-water components of the GB Capital Component would result in short-term water quality impacts associated with the construction of the new moorings, aquaculture, and docks. Placement of pile structures could temporarily affect water quality if water quality protection measures are not implemented. Proposed pile placement would result in the short-term disturbance of localized sediments. As is typical for projects that involve in-water construction, disruption of sediments could adversely affect water quality by temporarily resuspending sediments, thereby increasing turbidity. In addition, chemicals that are present in the sediments could be released to the water column during resuspension, which could temporarily degrade water quality. Further, suspended sediments in the water column can lower levels of dissolved oxygen, increase salinity, increase concentrations of suspended solids, and possibly release chemicals present in sediments into the water.

The degree of turbidity resulting from the suspended sediments would vary substantially with the quantity and duration of the construction activity and would also depend on the methods used, the quality of equipment, and the care of the operator. Higher turbidity is expected to be confined to the specific area of pile installation and would dissipate quickly. Substantially depressed oxygen levels resulting from high turbidity (i.e., below 5 mg/L) can cause respiratory stress to aquatic life, and levels below 3 mg/L can cause mortality. However, depressed oxygen levels resulting from project construction activities are not expected to remain low for long periods. Nevertheless, while the impacts are expected to be short term, the proposed project would be constructed over a period of approximately 24 to 60 months. Therefore, site-specific turbidity levels may be above ambient levels within a portion of Sweetwater Channel for an extended period. In-water BMPs would limit the spread of the turbidity plume outside the specific work area. As a result, increased turbidity levels would be relatively short-lived and generally confined to within the immediate vicinity the activity or within the area of containment outside the specific work area. After initially high turbidity levels within the specific work area, sediments would disperse, and background levels would be restored within hours of disturbance. In addition, tidal currents would slowly dissipate the oxygen-poor water and replenish ambient oxygen levels within one tidal exchange. Therefore, only temporary water quality impacts related to suspended solids and depressed oxygen levels in the water column of the specific work area would be expected.

The GB Capital Component would be required to obtain from USACE a Section 10 permit for the placement of moorings, piles, and docks in navigable waters. Section 10 of the Rivers and Harbors Act of 1899 requires authorization from USACE for the construction of any structure in or over any navigable water of the United States (WoUS). Section 10 and Section 408 permits would be required to be obtained prior to initiating construction activities within Sweetwater Channel. USACE may issue a public notice to interested parties to solicit comments on the project, and, after evaluating

the comments and information received, USACE would make a decision to issue or deny a permit based on compliance with its regulations and other laws.

In addition, the GB Capital Component would be required to obtain a corresponding Water Quality Certification (Section 401 permit) from the RWQCB for the federal permits from USACE. A Section 401 permit is required by USACE for Section 10 Permit issuance. Once the RWQCB deems a 401 application is complete, a public notice and 21-day comment period follow. Following the public comment period, additional information may be required or a public hearing with the RWQCB would be scheduled. The RWQCB-issued Water Quality Certification would specify methods for ensuring the protection of water quality during construction activities in San Diego Bay and Sweetwater Channel, including water quality monitoring requirements in order to meet the Basin Plan water quality objectives; also, beneficial uses may require mitigation for impacts on WoUS. In addition, the 401 permit would list specific conditions for the use of in-water construction BMPs to minimize the discharge of construction materials from construction activities, control floating debris, and provide spill containment and cleanup equipment to control potential accidental spills in order to meet the Basin Plan water quality objectives and beneficial uses.

Although temporary water quality impacts related to suspended solids in the water column would be expected, impacts related to resuspension of sediments would be reduced to a less-than-significant level with implementation of the appropriate regulatory permits, including the CWA Section 401 Water Quality Certification. The CWA Section 401 Water Quality Certification would require implementation of in-water construction BMPs that would reduce water quality impacts associated with construction of the expanded marina facilities and breakwater. Common in-water construction BMPs utilized during marina projects typically include silt curtains along with trash booms. Silt curtains are designed to contain sediment within a limited area. They provide time for soil particles to fall out of suspension and help prevent these particles from being transported to other areas.

With adherence to regulatory permit requirements associated with Rivers and Harbors Act Section 10 and CWA Section 401, which would be required from USACE and RWQCB, respectively, project construction would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade existing water quality. Beyond the regulatory requirements and the measures needed to ensure compliance, no mitigation under CEQA would be required.

Landside Operation

The existing project site encompass approximately 41.7 acres of impervious surfaces, consisting of the following: Pasha Road Closures Component (approximately 6.0 acres); a portion of Pepper Park and the parking lot (approximately 2.6 acres); the FPR (approximately 7.4 acres); GB Capital Component (approximately 7 acres); Bayshore Bikeway alignment (approximately 2.3 acres); Pasha Rail Improvement Component (Lot K is approximately 11.4 acres); and Balanced Plan (road closures/realignment: approximately 5 acres). Figure 3-2 identifies which portions of the proposed project fall within the City's jurisdiction and which fall within the District's jurisdiction. The proposed project would develop existing undeveloped parcels within the City's jurisdiction (City Program – Development Component) and a portion of the GB Capital Component east of the marina, as well as Parcel B6 in the GB Capital Component (within the District's jurisdiction), which would increase the impervious surfaces on the project site. Commercial uses generate pollutants that could impair water quality if not treated prior to discharge. Typical pollutants associated with commercial land uses include, but are not limited to, suspended solids, pathogens, nutrients, pesticides, organic

compounds, metals, trash/debris, oxygen-demanding substances, and oil and grease. Typical pollutants associated with parking lots include heavy metals; however, the existing project site within the proposed Balanced Plan area includes an existing parking lot at Pepper Park and the adjacent FPR. Under the proposed project current undeveloped vacant lots within the City Program – Development Component area would be rezoned to Tourist Commercial (CT), and part of the eastern side of the GB Capital Component would remain zoned as CT. As a result, these parcels could be developed with a hotel, restaurant, retail, and/or some combination of tourist/visitor-serving commercial uses. Tourist Commercial uses could increase the amount of pollutants generated on site that could run off during a storm event and discharge into storm drains or San Diego Bay. Additionally, under the GB Capital Component, a new, approximately 4,000-square-foot maintenance building and associated approximately 8,200-square-foot maintenance yard would be constructed immediately northeast of the proposed dry boat storage. The new maintenance area would be used to store maintenance items such as parts, tools, paint, and supplies such as those for cleaning and landscaping. The new maintenance area is also proposed to be used by boat owners (or authorized personnel) to perform light boat maintenance such as cleaning, waxing, touch-up painting, and minor repair activities for boat electronics and engines. Heavy repairs or painting boat bottoms would not be performed on site. This maintenance space would have a separate wash down area for the boats. The result may impair receiving waters. Therefore, the GB Capital Component of the proposed project could result in potentially significant impacts related to a violation of water quality standards or waste discharge requirements.

For projects within the District's jurisdiction—including portions of the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, and Pasha Road Closures Component, and a small portion of the Bayshore Bikeway—the District's Stormwater Management and Discharge Control Ordinance (Article 10) and JRMP include specific requirements for all development and redevelopment activities. Pursuant to the District's JRMP, post-construction BMPs are required for all projects falling under the state's Construction General Permit (projects greater than 1 acre). Post-construction BMPs are a subset of BMPs including structural and nonstructural controls that detain, retain, filter, or educate to prevent the release of pollutants to surface waters during the functional life of developments. Article 10 also specifically requires pollutant control BMPs for all PDPs, which includes the proposed project. The proposed project components within the District's jurisdiction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, and Pasha Road Closures Component, a small portion of the Bayshore Bikeway),would be considered a PDP and would be required to implement pollutant control BMPs, following the hierarchy described in the District's BMP Design Manual (retention, partial retention with biofiltration, or biofiltration). Stormwater pollutant control BMPs are engineered facilities that are designed to retain (i.e., intercept, store, infiltrate, evaporate, and evapotranspire) or biofilter treatment of stormwater runoff generated on the project site. Minimum BMPs consistent with the District's BMP Design Manual require the use of site design BMPs and source control and pollutant control BMPs.

For projects within the City's jurisdiction, including an area of GB Capital Component, a portion of Pasha Road Closures Component, most of the Bayshore Bikeway Component, and City Program - Development Component, the City's Stormwater Management and Discharge Control Ordinance (Chapter 14.22 of the Municipal Code) and JRMP include specific requirements for all development and redevelopment activities. Pursuant to the City's JRMP, BMPs are required for all projects falling under the state's Construction General Permit (projects greater than 1 acre). BMPs are designed to address project planning, erosion control, sediment control, and waste management and good

housekeeping to reduce, retain, and manage pollutant discharges to the maximum extent practicable.

As described in Section 3.6 of Chapter 3, *Project Description*, the proposed project would be required to obtain permits and approvals from both the District and the City, and each project component would be required to implement BMPs identified in the District's or City's JRMP, following the District's or City's Storm Water BMP Design Manual, depending on which jurisdiction the project component is located in. Additionally, a post-construction SWQMP must be prepared for all PDPs to identify the project-specific design BMPs and source control and pollutant control BMPs. These requirements are discussed under Section 4.8.3, *Applicable Laws and Regulations*, and primarily under 4.8.3.4, *Local*.

The project proponent for each project component would prepare a project-specific SWQMP for approval by the District or the City, depending which jurisdiction the component is located, that identifies low-impact development (LID) features (site design and source control BMPs) and pollutant control BMPs to reduce the discharge of pollutants to the maximum extent practicable. The most significant water quality benefit of LID is removal of stormwater runoff from the storm drain system or receiving waters. The first flush of stormwater runoff during a rainfall event typically contains higher concentrations of pollutants than later rainfall. By directing this runoff through LID features and providing retention, infiltration into the various layers of the LID feature and/or the native soils below the LID, and evapotranspiration, the pollutants do not reach the receiving body of water. The proposed project would also include non-structural BMPs such as storm drain stenciling and signage, properly designed outdoor materials storage areas, properly designed trash storage areas, proof of ongoing BMP maintenance, and other items relevant to operations of the site, such as ongoing boater education materials. Implementation of site-specific LID features and pollutant control BMPs, in accordance with the applicable JRMPs, would filter potential pollutants from runoff prior to discharge into receiving waters.

Applicable site design BMPs and source control and pollutant control BMPs would be implemented in accordance with the District's BMP Design Manual or the City's BMP Design Manual, depending on which jurisdiction the project component is located in, and would be identified in the project-specific SWQMP, which would (1) document that all permanent source control and site design BMPs have been considered for the project and implemented where feasible; (2) document the planning process and the decisions that led to the selection of structural BMPs; (3) provide the calculations for design of structural BMPs to demonstrate that applicable performance standards are met by the structural BMP design; (4) identify O&M requirements of the selected structural BMPs; and (5) identify the maintenance mechanism for long-term O&M of structural BMPs (District 2018b, City 2020). Project-specific SWQMPs must be provided, depending on the jurisdiction within which the project component is located, with the first submittal of project drawings for review and approval by the District or the City, depending on the location of the component. Although undeveloped parcels would be developed under the proposed project, resulting in an increase of impervious surface area, the increase would be offset by regulatory requirements, such as implementation of BMPs and LID. Implementation of BMPs and LID would improve retention on site. Compliance with additional treatment BMPs would reduce pollutant impacts. Therefore, with implementation of these requirements, the proposed project would not violate any water quality standards or waste discharge requirements, and, as such, impacts would be less than significant; no mitigation measures are required.

In-Water Operation

Proposed modifications related to the coastal development permit for the Aquatic Center (part of the Balanced Plan) would reduce operational restrictions to allow for larger class sizes and to allow non-motorized watercraft (kayaks) to access the area farther to the east in Sweetwater Channel. The channel is not identified as a water body with 303(d)-listed impairments, although impairments are generally associated with marinas, including Pier 32 Marina. For example, the potential for the discharge of gray water (galley and shower water) and black water (sewage) exists within all marinas. If some boaters do not discharge their waste into pump-out stations, but rather discharge human waste directly into marine waters, significant water quality impairments could occur. In addition, pollutants generated from boat hull maintenance, in-water cleaning, and leaking oil may impair water quality and threaten the health of, and toxicity to, aquatic systems. Chemicals used in top-side and underwater cleaning can also degrade water quality. Water quality impacts can be avoided or lessened by using non-toxic cleaning products, minimizing or eliminating toxic cleaning agents, and implementing practices that prevent or reduce opportunities for toxic products to contact surface water, such as required by the District's In-Water Hull Cleaning Ordinance.

Water quality impacts from copper-based hull paints have been identified in marina basins throughout California (District 2018a). Copper has been a standard ingredient in hull paints for many decades, and the paint has caused exceedances of water quality standards throughout San Diego Bay. Copper-based antifouling hull paints are currently the most commonly used antifouling coating. Copper discourages fouling organisms such as barnacles and algae, but also slowly leaches into the water column and can be released from the hull as particles that fall to the sediment. The copper in the paint is a biocide that leaches into the water, causing contamination that is harmful to marine life, including fish and sea lions (District 2018a). Boats with copper hulls would continue to operate in Sweetwater Channel and dock in Pier 32 Marina. However, this area is not currently identified as impaired by copper.

The GB Capital Component would add up to 95 additional boat slips in the project vicinity (between added moorings and docks with slips). Due to an increase in boats in the project area, pollutant levels could potentially increase above existing conditions depending on the types of boats used (newer versus older) and the care of each boat owner to comply with boating regulations protecting water quality. The boaters would be required to comply with the District's adopted in-water hull cleaning regulations to reduce or eliminate copper pollution caused by hull cleaning activities in San Diego Bay. The ordinance requires the use of BMPs for all persons. No person can perform in-water hull cleaning without complying with BMPs and no person can perform in-water hull cleaning that results in a visible paint plume or cloud. Pollutants associated with marinas currently exist and would continue to be present under the proposed project. Even though the GB Capital Component would result in an expansion of recreational activities, no new activities that would significantly increase water pollution would occur compared to existing conditions, and, as such, impacts would be less than significant; no mitigation measures are required.

Groundwater

Landside Construction and Operation

During onsite grading and building construction associated with all project components, hazardous materials (e.g., fuels, paints, solvents, concrete additives) could be used and therefore, would require proper management and, in some cases, disposal. The management of any resultant hazardous wastes could increase the opportunity for hazardous materials releases into groundwater. However,

compliance with all applicable federal, state, and local requirements concerning the handling, storage and disposal of hazardous waste would effectively reduce the potential for the construction of the proposed project to release contaminants into groundwater that could result in groundwater contamination or a violation of regulatory water quality standards. Therefore, construction associated with the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component would not result in any substantial increase in groundwater contamination through hazardous materials releases, and impacts would be less than significant. In addition, no groundwater dewatering that could impact groundwater quality is anticipated for construction of any of the proposed project components. However, in the event groundwater dewatering is required, the proposed project (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component) would comply with Order No. R9-2015-0013, which requires dischargers to meet the applicable receiving water limitations based on water quality objectives contained in the Basin Plan.

Groundwater would not be extracted from the project site to support operations. Onsite activities are not anticipated to result in the infiltration of pollutants that could impair the groundwater basin. As detailed above, the District's Stormwater Management and Discharge Control Ordinance (Article 10) and JRMP include specific requirements for all development and redevelopment activities. Applicable site design BMPs and source control and pollutant control BMPs would be implemented in accordance with the District's JRMP and/or the City's JRMP, depending on which jurisdiction the project component is located in, and would be identified in the project-specific SWQMP, to reduce the discharge of pollutants to the maximum extent practicable. Therefore, the proposed project is not anticipated to result in groundwater quality impacts during operation.

In-Water Construction and Operation

The waterside portion of the GB Capital Component is in Sweetwater Channel, which is located on the east side of San Diego Bay. The waterside portion of the GB Capital Component overlies the groundwater basin; however, this area is generally considered to be saline areas that are not used for drinking water. The GB Capital Component's in-water activities would be limited to construction of the new moorings and floating dock. Construction of these facilities is not anticipated to impact groundwater quality. In addition, operation of the GB Capital Component would be similar to the existing conditions with the addition of up to 95 boats. Operation of the GB Capital Component, similar to existing conditions, is not anticipated to impact groundwater. In addition, as detailed above, the GB Capital Component would comply with regulatory permit requirements associated with Rivers and Harbors Act Sections 10 and 408 and CWA Section 401. Therefore, the GB Capital Component is not anticipated to result in groundwater quality impacts during construction and operation.

Level of Significance Prior to Mitigation

Construction and operation of the landside portion of the proposed project (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component) would not violate any surface or groundwater quality standards or waste discharge requirements in compliance with the applicable jurisdiction's JRMP, BMP Design Manual, and the Construction General Permit for landside improvements. The landside portion of the project (Balanced Plan, GB Capital Component,

Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component) would not otherwise substantially degrade existing water quality. Impacts would be less than significant.

Construction of the waterside portion of the proposed project (GB Capital Component) would not violate any water quality standards or waste discharge requirements if conducted in compliance with regulatory permit requirements associated with Rivers and Harbors Act Sections 10 and 408 and CWA Section 401. Permits would be required from USACE and RWQCB, respectively. Operation of the GB Capital Component would not violate water quality standards and/or waste discharge requirements associated with the surrounding Sweetwater Channel and San Diego Bay, and would not otherwise substantially degrade existing water quality. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 3: Implementation of the proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces in a manner which would:

(i) result in substantial erosion or siltation on or off site;

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site; or

(iii) create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Impact Discussion

Implementation of the proposed project would not substantially alter the existing drainage pattern of the project site, including through the alteration of the course of a stream or river or through the addition of impervious surfaces. All project components (would continue to discharge directly to San Diego Bay and would not result in erosion or siltation by nature of the receiving San Diego Bay waters (i.e., not a typical channel with bed and banks subject to erosion).

Project components including the GB Capital Component, Bayshore Bikeway Component, and City Program – Development Component would result in an increase of impervious surfaces compared to existing conditions; however, any increases in peak flows for storm events would be managed through the use of LID features and stormwater pollutant control BMPs that are designed to treat (i.e., intercept, store, infiltrate, evaporate, and evapotranspire) stormwater runoff generated on the

project site in compliance with the District's and City's respective BMP Manual. A drainage report would be required to be prepared prior to construction. Compliance with regulations would be required to prevent the proposed project from allowing the discharge of water levels that exceed the capacity of existing pipelines. In addition, the proposed project would discharge directly to Sweetwater Channel and San Diego Bay and would not result in erosion, siltation, or flooding by nature of the receiving San Diego Bay waters (i.e., not a typical channel with bed and banks subject to erosion or overtopping). The project does not propose changing the drainage pattern; however, the way in which water is filtered would differ from existing conditions. Through the addition of LID features and compliance with the District's and City's respective BMP Manual, the proposed project would improve current drainage patterns. Although the proposed project would result in an increase in impervious surfaces, waterflow would still drain directly into San Diego Bay and Sweetwater Channel. Therefore, the proposed project does not include changes to the existing storm drain system that would result in substantial erosion or siltation or flooding on site or off site. As such, impacts would be less than significant; no mitigation measures are required.

The drainage pattern would not be altered as part of any project component. Additional moorings, gangways, pier, and floating docks in the waterside portion of the GB Capital Component would result in a net increase in floating dock area of pile-supported dock space. However, the docks are not considered an impervious area, as typically defined, because of the gaps in the docks that are over open marina and channel waters. The proposed project would not increase stormwater flows into the marina. As such, impacts associated with erosion or siltation on or off site, or the rate or amount of surface runoff that would result in flooding on- or off site would be less than significant; no mitigation measures are required.

Anticipated pollutants of concern expected from operation of the proposed project would be typical of commercial uses, restaurants, roads, parks, parking areas, bike paths, railroad right-of-way, and landscaping during operations. Such pollutants include trash and debris from site visitors and around garbage bins, oil and grease from equipment and vehicles, oxygen-demanding substances, bacteria and viruses from food disposal, heavy metals from equipment and structures, and organic compounds. Other potential pollutants of concern include pesticides and nutrients from landscape. All of the project site drainages discharge into Sweetwater Channel and San Diego Bay (District 2018a). All project component sites would continue to discharge directly into Sweetwater Channel and San Diego Bay, similar to existing conditions.

The proposed project is considered a PDP in accordance with the District's and the City's JRMPs. As a PDP, all project components would be required to implement post-construction BMPs through the preparation and implementation of a project-specific SWQMP for each project component. Site design, source control, and pollutant control BMPs consistent with the District's JRMP and BMP Design Manual would be implemented for project components within the District's jurisdiction or the City's JRMP and Storm Water BMP Design Manual for project components within the City's jurisdiction, as described previously under Section 4.8.3.3. The JRMPs require that the PDP applicants proposing to meet the performance standards on site implement all feasible onsite retention BMPs needed to meet the stormwater pollutant control BMP requirements prior to installing onsite biofiltration BMPs. Retention BMPs are structural measures that provide retention (i.e., intercept, store, infiltrate, evaporate, and evapotranspire) of stormwater as part of the pollutant control strategy; examples that may be considered on site include infiltration BMPs and cisterns, bioretention BMPs, and biofiltration with partial retention BMPs (District 2018b, City 2020). Flow-through treatment control BMPs are structural measures that provide flow-through treatment as part of the pollutant control strategy; examples include vegetated swales and media filters (District

2018b). Flow-through treatment is allowable as part of a treatment train, for example to remove trash or sediment prior to required biofiltration, but is not considered compliance with the BMPs Design Manual by itself. The groundwater depth is less than 10 feet below existing ground elevations, and, as such, the project site is in a no-infiltration condition given the adjacency to Sweetwater Channel.

Site design and source control BMPs are the minimum management practices, control techniques, and design and engineering methods to be included in the planning design to reduce the discharge of pollutants from the development, and are intended to avoid or minimize the water quality impacts by managing site hydrology, providing treatment features integrated within the site, and reducing or preventing the introduction of pollutants from specific sources. A SWQMP would be required and prepared during final design and as part of project approval for each project component. Implementation of site design, source control, and pollutant control BMPs would not only result in a reduction in pollutants discharged from the project site but also in stormwater runoff generated by the project site. As a result, the proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Development of the proposed project would include implementation of pollutant control BMPs in compliance with the District's JRMP and BMP Design Manual, or the City's JRMP and Storm Water BMP Design Manual that would remove pollutants to the maximum extent practicable prior to discharge into Sweetwater Channel. Therefore, the proposed project (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component) would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. As such, impacts would be less than significant; no mitigation measures are required.

Project proponents would need to obtain approvals from the City's Community Development Department and/or the District's Development Services Department prior to project approval.

Level of Significance Prior to Mitigation

Implementation of the proposed project (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component) would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would (i) result in substantial erosion or siltation on- or off-site; or (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 4: Implementation of the proposed project in flood hazard or tsunami zones would not risk release of pollutants due to project inundation.

Impact Discussion

Landside

As previously discussed, the GB Capital Component, which is also the commercial recreation area of the Balanced Plan, is in a designated tsunami hazard zone, and, therefore, employees and visitors would be subject to the risk of this hazard. Low-lying coastal areas, harbor inlets, and the mouths of moderately sized drainages are locations particularly at risk to the hazard of tsunami wave run-up. Tsunami safety depends on numerous factors, including the degree of the tsunami-hazardous zone urbanization, probability and extent of secondary disasters, readiness of the tsunami-hazardous zone for the emergency, and other factors. Conditions under the proposed project (Balanced Plan and the GB Capital Component) would be similar to the existing conditions and would not increase the potential of tsunami wave run-up.

The most significant remote tsunami to hit Southern California was in 1960, when an 8.6 magnitude earthquake off the coast of Chile generated a tsunami resulting in 4-foot waves at Santa Monica and Port Hueneme and caused major damage to the Los Angeles and Long Beach harbors.

Local tsunamis are generated off the coast of Southern California; however, since 1800, only four locally generated tsunamis have been observed. The most significant was in 1812 in Santa Barbara and Ventura counties. Waves were reported at 6 to 10 feet high, several small buildings were damaged, and many ships were destroyed (County of San Diego 2018).

Although the project site (Balanced Plan and the GB Capital Component) is within a designated high risk zone for a tsunami, the likelihood of such an event occurring during the construction period is considered low. If such an event were to occur during construction or operation, the project site's distance from the open ocean and the buffering provided by Coronado would mean flood flows would be assimilated within San Diego Bay. Also, there would be notice to evacuate people from the project site from the West Coast and Alaska Tsunami Warning Center, which monitors earthquakes and issues tsunami warnings when a tsunami is forecasted. Property damage may occur but would be limited to water damage on the ground floors, which would be reversible (District 2012). Moreover, the proposed project (Balanced Plan and the GB Capital Component) is consistent with nearby land uses along the bayfront. The GB Capital Component would include two 500-gallon fuel tanks (diesel and gasoline) with containment that would be located on the site. While the potential for tsunami is low, should one occur, it could result in damage to the tanks and the release of liquid fuels, which could impair water quality. However, the tanks would have secondary containment, which depending on the type of secondary containment and the size of the tsunami could be sufficient to prevent release of fuel. The use of fuel tanks is common around San Diego Bay for use at marinas. As a result, proposed project conditions would be similar to existing conditions in San Diego Bay, and the proposed project (GB Capital Component) would not result in the risk of release of pollutants due to project inundation by tsunami substantially greater than existing conditions. Consequently, while it is reasonably foreseeable that inundation from a tsunami could occur, the proposed project (Balanced Plan and the GB Capital Component) would not substantially exacerbate the risk of release of pollutants compared to existing conditions; any associated impacts would be less than significant.

Waterside

Although extremely rare, a tsunami could cause damage to the marina facilities and docked boats within Pier 32 Marina (GB Capital Component). However, the water use designation changes associated with the Balanced Plan or the GB Capital Component would not exacerbate the potential for a tsunami to risk release of pollutants due to project inundation compared to the existing conditions. Therefore, the risk of release of pollutants caused by a tsunami would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not contribute to inundation by tsunami. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 5: Implementation of the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Impact Discussion

The District's JRMP and the City's JRMP are the local water quality management plans that apply to the proposed project, depending on the location of the specific project components, which means that for components within the District's jurisdiction, the District's JRMP applies and for components in the City's jurisdiction the City's JRMP applies. As discussed under Threshold 1, the proposed project (i.e., Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component) would be covered under the Construction General Permit and the District's or the City's JRMP and BMP Design Manual, which would require the project implement site design measures and BMPs to reduce or prevent runoff pollution, that would be consistent with the applicable JRMPs. Therefore, the proposed project (i.e., the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component) would not be in conflict with or obstruct implementation of the applicable water quality control plan for the project area. Given the proposed project would not result in impacts on groundwater, the proposed project is not anticipated to conflict with a sustainable groundwater management plan.

Level of Significance Prior to Mitigation

Implementation of the proposed project (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component) would not conflict with or obstruct implementation of a

water quality control plan or sustainable groundwater management plan. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Section 4.9
Land Use and Planning

4.9.1 Overview

Land use and planning issues refer to the proposed project's compatibility with surrounding land uses and its consistency with land use plans and policies that have regulatory jurisdiction over the project area. This section describes the existing land uses that could be adversely affected by the proposed project; outlines the applicable laws and regulations related to land use and planning; and analyzes the proposed project's consistency with applicable plans and regulations, such as the California Coastal Act (CCA), including Chapters 3 and 8.

Impacts related to land use were considered significant if the proposed project would conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, LCP, PMP, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. With regard to sea-level rise (SLR), this section focuses on whether the proposed project is consistent with the CCA. The California Coastal Commission's (CCC's) *Sea Level Rise Policy Guidance* has been used as guidance in the analysis, as it has not been adopted as a regulation or requirement by the CCC (CCC 2015). A full analysis of the proposed project's potential climate change impacts is included in Section 4.6, *Greenhouse Gas Emissions and Climate Change*. An analysis of the proposed project's consistency with the District's Climate Action Plan (CAP) and the City's CAP is also provided in Section 4.6.

Based on the analysis that follows, all impacts related to land use would be less than significant. No mitigation is required.

Table 4.9-1 summarizes the significant impacts and mitigation measures discussed in Section 4.9.4.3, *Project Impacts and Mitigation Measures*.

Table 4.9-1. Summary of Significant Land Use and Planning Impacts and Mitigation Measures

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-LU-1: Permanent Inundation in the Near Term (Bayshore Bikeway Component)	**MM-LU-1:** Design Bayshore Bikeway to Account for Sea-Level Rise in the Near Term	Less than Significant	**MM-LU-1** would reduce inundation because the Route 1 option of the Bayshore Bikeway Component would be designed and constructed to be located outside the areas of inundation near the marsh part of that bikeway alignment.
Impact-LU-2: Temporary Inundation for 2030 and 2050 (Balanced Plan, GB Capital Component)	**MM-LU-2:** Design the Pepper Park Expansion to Account for Sea Level-Rise through 2050	Less than Significant	**MM-LU-2** and **MM-LU-3** would reduce inundation impacts because project components would be designed and constructed to accommodate projected inundation.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
	MM-LU-3: Conduct Engineering-Level, Site-Specific Assessment of Sea Level-Rise through 2050		
Impact-LU-3: Temporary and/or Permanent Inundation for 2100 (Balanced Plan, GB Capital Component, Pasha Road Closures Component, Bayshore Bikeway Component)	**MM-LU-4:** Use Updated Modeling and Monitoring for Adaptive Management for 2100 Scenario **MM-LU-5:** Use Updated Modeling and Monitoring for Adaptive Management for 2100 Scenario	Less than Significant	**MM-LU-4** and **MM-LU-5** would reduce temporary and/or permanent inundation for 2100 because ongoing monitoring of the project site would be conducted to observe SLR conditions and, if necessary, site-specific assessments would be prepared to identify appropriate adaptation strategies to ensure that areas projected to be inundated are resilient.

4.9.2 Existing Conditions

The project site occupies land and water that is under the jurisdiction of the District and the City. In total, the District has jurisdiction over approximately 5,500 acres of tide and submerged lands (Tidelands), or about 37% of the total Tidelands on the Bay. The PMP is the governing land use plan in the District and dictates the land and water uses within the District. Land use designations in the PMP are composed of approximately 15% commercial, 24% industrial, 19% public recreation, 28% conservation, 12% public facility, and 3% military (District 2020).

The LCP is the governing land use plan for projects within the City's jurisdiction that fall within the coastal zone. National City encompasses approximately 5,888 acres and has an estimated population of approximately 61,431 residents (U.S. Census Bureau 2019). As of 2009, the city comprised approximately 28% residential uses (including single-family, multi-family, and mobile homes); 8% commercial uses; 13% industrial uses; 17% transportation, communications, and utilities uses; 10% military uses; 5% recreational uses; 5% institutional uses; and approximately 13% water uses (City of National City 2011).

4.9.2.1 Existing Land and Water Use Designations

Combined, the sites of the multiple project components total approximately 77 acres, with approximately 53 acres falling within the District's PMP jurisdiction and the remaining approximately 24 acres within the City's LCP. The jurisdictional boundaries are shown on Figure 2-2 in Chapter 2, *Environmental Setting*. Table 4.9-2 provides the acreages of existing land uses within

the project site. Allowable uses within the existing land use designations are discussed following the table.

Table 4.9-2. Existing Land Use Designations and Acreage within the Project Site

Land/Water Use Designation	PMP (acres)	National City LCP (acres)	Total (acres)
Marina District and Balanced Plan[1]			
Marine Terminal	7.38	--	7.38
Marine-Related Industrial	6.89	--	6.89
Commercial Recreation/Tourist Commercial[2]	7.38	11.5	18.88
Recreational Boat Berthing/Boat Navigation/Open Water/Coastal Zone	17.34	--	17.34
Park/Plaza	5.22	--	5.22
Street	5.29	--	5.29
Subtotal	*49.50*	*11.5*	*61.0*
Pasha Road Closures Component			
Street	5.77	0.30	6.07
Subtotal	*5.77*	*0.30*	*6.07*
Bayshore Bikeway Component[3]			
Route 1[4]	--	2.25	2.25
Route 2	--	2.17	2.17
Route 3	--	2.18	2.18
City Program – Development Component			
Tourist Commercial	--	2.02	2.02
Medium Manufacturing	--	4.14	4.14
Subtotal	--	*6.16*	*6.16*
Total	**55.27**	**20.21**	**75.48**

[1] Includes the Pasha Rail Improvement Component and most of the GB Capital Component.
[2] The areas currently in the PMP have a Commercial Recreation land use designation. The areas currently in the City's LCP (Harbor District Specific Area Plan) have a Tourist Commercial land use designation.
[3] Acreage calculations for the Bayshore Bikeway Component assume a 12-foot-wide right-of-way (as stipulated by the San Diego Regional Bike Plan for a Class I bike path) and an approximate length of 8,152.3 feet for Route 1, 7,887.4 feet for Route 2, and 7,929.0 feet for Route 3.
[4] For acreage estimates, the total acreage conservatively assumes construction of Route 1, which is the longest bike path.

National City Bayfront Planning District (PMP)

Approximately 53 acres of the project site fall within the District's existing jurisdiction and are governed by the PMP. More specifically, the western side (west of the mean high tide line) and a small portion of the eastern side of the overall project area is within the PMP's National City Bayfront Planning District (Planning District 5) and includes several subareas: Lumber Yards (Subarea 55), Sweetwater (Subarea 57), Launching Ramp (Subarea 58), and Marina (Subarea 59) (see Figure 4.9-1).

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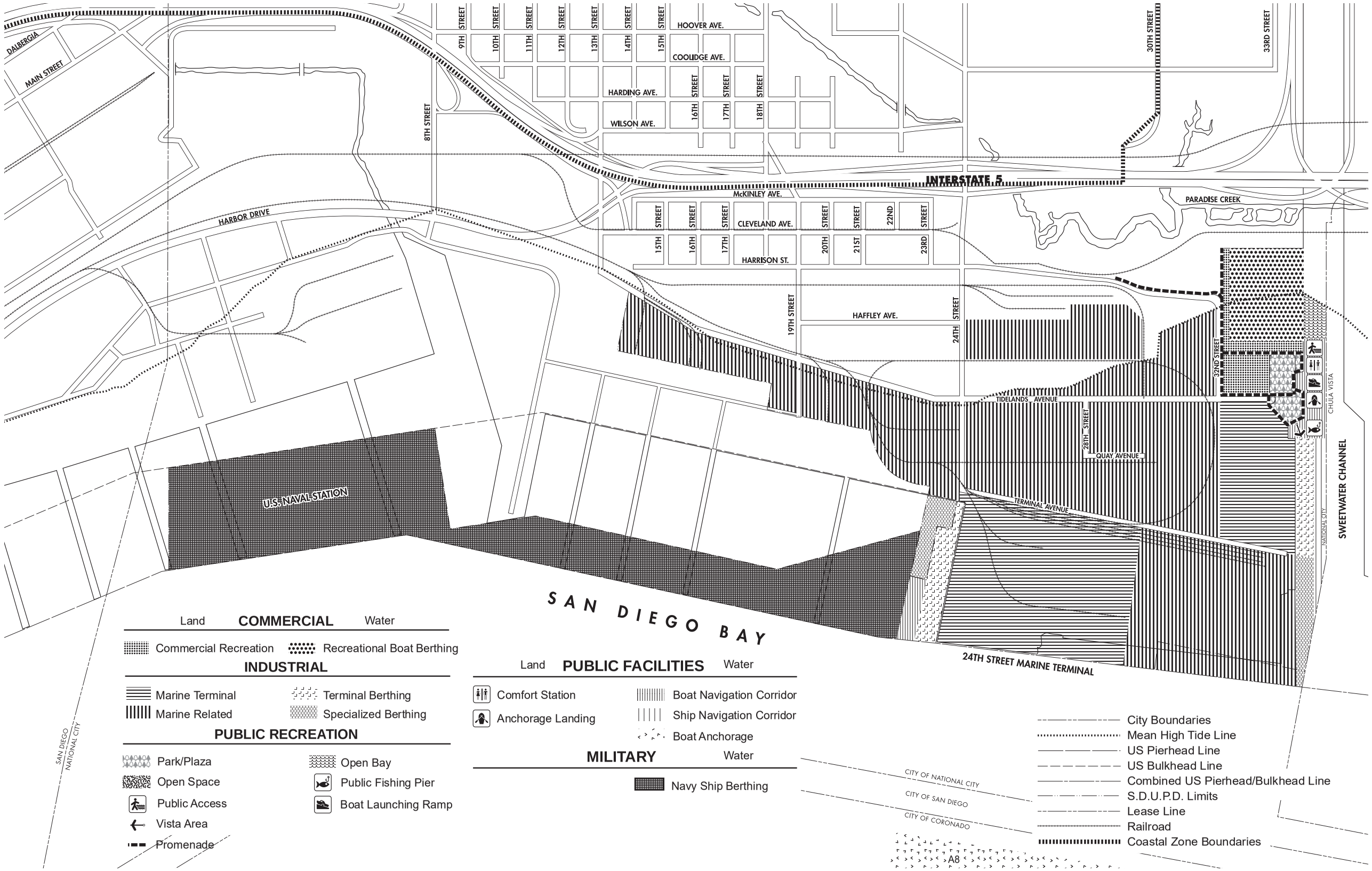

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Figure 4.9-1
National City Planning District Precise Plan
National City Bayfront Projects & Plan Amendments EIR

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The existing certified PMP describes these subareas as follows:

- Lumber Yards (Subarea 55): A portion of the project site north of 32nd Street falls within this subarea (Parcel B4 of the Balanced Plan). As identified by the PMP, the Lumber Yards subarea is intended for storage and the assembly and handling of lumber and wood products, including wood preserving, manufacturing wood products, and wholesaling building supplies. Other appropriate uses indicated for the subarea include ice manufacture, food processing, petroleum storage, freight distribution, and associated or similar uses.
- Sweetwater Wharf (Subarea 57): The first point of rest (FPR) parcel of the project site falls within this subarea, which designates the part of the National City Marine Terminal (NCMT) located on Sweetwater Channel, and is linked administratively to the container terminal (Subarea 54). Its 1,400-foot-long wharf is used almost exclusively for landing shipments of lumber and vehicles.
- Launching Ramp (Subarea 58): Parcels P1, P2, and B3 of the Balanced Plan fall within this subarea, which is intended for public recreation and the National City Aquatic Center. Continued heavy use of this public recreation area is anticipated for active yachting, instructional turf play, and more passive activities, such as fishing, picnicking, and sightseeing.
- Marina (Subarea 59): This commercial recreation area is intended to accommodate the needs of workers in the nearby industrial area, people enjoying the nearby recreational park, and the adjacent marina and attendant commercial facilities. Uses could include a restaurant or coffee shop, convenience store, bait and tackle shop, boat slips and dry storage, lodging, and other business activities consistent with public demand.

Existing PMP land use designations within the project site include Marine Terminal (FPR site), Marine-Related Industrial (paved marine terminal-related storage area north of 32nd Street), Commercial Recreation (landside area of Pier 32 Marina and Pasha storage area west of Goesno Place), Recreational Boat Berthing (Pier 32 Marina), Open Bay (Sweetwater Channel), and Park/ Plaza (Pepper Park) (see Figure 4.9-1).

- Marine Terminal: Designation for facilities and operations that include the handling, marshaling, and unloading/loading of cargo associated with the maritime industry.
- Marine-Related Industrial: Landside designation for sites close to waterbodies because of functional dependencies on the industrial activity for direct access or linkages to waterborne products, processes, raw materials, or large volumes of water. The primary users of marine-related industrial areas are dependent upon large ships; deep-water and specialized loading and unloading facilities, typically associated with shipbuilding and repair; processing plants; and marine terminal operations.
- Commercial Recreation: Allowable uses include hotels, restaurants, recreational vehicle (RV) parks, specialty shopping, pleasure craft marinas, water-dependent educational and recreational program facilities and activities, a convention center, dock and dine facilities, and sportfishing activities.
- Park/Plaza: Allowable uses include park, plaza, landscaping, public fishing piers, boat launching ramps, beaches, historic and environmentally interpretive features, public art, vista areas, cultural uses, scenic roads, bicycle and pedestrian ways, water-dependent educational and recreational program facilities and activities, small beverage vending, and other park-activating uses that are ancillary to the public uses.

- Recreational Boat Berthing: Waterside designation that includes recreational craft storage, refueling, boat brokerage storage area, sailing school docking, water taxi, excursion ferry and charter craft operations, guest docking, boat launching, sewage pump out, water craft rental, boat navigation corridors, breakwaters for recreational craft protection, navigation facilities, aids to navigation, floats, docks, piers, breakwaters, wave attenuation structures, seawalls, shoreline protection, and any other necessary or essential facilities for providing waterside docking refuge to recreational marine craft and commercial passenger vehicles.
- Open Bay: Waterside designation allocated to water areas adjoining shoreline recreational areas, the boat launching ramp, fishing pier, vista areas, and other public recreational facilities where the need for open water is related to the proper function of the shoreline activity. Multiple use of open bay water areas for recreational and for natural habitat purposes is possible under this use category designation.

National City Local Coastal Program

Approximately 24 acres of the project site fall within the City's LCP, including the easternmost portion of the Balanced Plan area,[1] seven parcels and the street area within the City Program – Development Component area, and most of the three options for the bike paths (short segments of the bike routes fall within the District's jurisdiction).

Of the 24 acres, approximately 12.7 acres fall within the Balanced Plan area. The LCP land use designation for these areas is Tourist Commercial/Recreation, which is intended to meet specific recreational market demand and provide an attraction for secondary uses, overnight uses, and boating. Appropriate uses within this designation include marina development, hotel/motel and restaurant facilities, RV park/campground, dry-storage and boat service facility, and/or public park areas. The 12.7 acres also fall within the City's Harbor District Specific Area Plan (HDSAP), which it describes as being a resource-based environmental implementation plan that establishes site-specific conservation and development standards within the portion of the city's coastal zone south of Bay Marina Drive. The main objective of the HDSAP is to be consistent with and carry out the requirements of the certified LCP. Portions of the project site that fall within the HDSAP are designated as Tourist Commercial with a floor area ratio of 1.0 and Open Space Reserve.

The City Program – Development Component parcels also fall within the LCP and are designated for Tourist Commercial and Medium Manufacturing uses, which include uses such as petroleum recycling, steel fabrication, and salvage areas.

4.9.2.2 Existing Community Characteristics

The existing characteristics of the project site and the surrounding community are described in Chapter 2. For the reader's convenience, this section restates the existing site conditions provided in Chapter 2 as they apply to land use and planning.

[1] This area, which is owned by the District, is proposed to be added to the PMP as part of the project (the PMPA Component of the proposed project). Section 5 of the San Diego Unified Port District Act (Port Act) requires the District to exercise its land management authority and power over property it acquires, and Section 19 of the Port Act requires the District incorporate such lands into the PMP. Additionally, Section 56 of the Port Act gives the District exclusive police power over property and development subject to its jurisdiction.

Project Area

The project site generally encompasses the area bounded by Civic Center Drive on the north (the farthest extent of the proposed bike paths), Sweetwater Channel on the south, Interstate (I-) 5 on the east, and Tidelands Avenue and the NCMT on the west.

Balanced Plan

The Balanced Plan project area is generally bounded by the National Distribution Center to the north, Sweetwater Channel to the south, Paradise Marsh to the east, and the NCMT to the west. As mentioned previously, the GB Capital Component is proposed to be located generally on the area identified for Commercial Recreation land use in the Balanced Plan, and the Pasha Rail Improvement Component is proposed to be within the area identified for Marine-Related Industrial land use in the Balanced Plan.

Pepper Park, which is included in the Balanced Plan project area, is a publicly accessible park at the southern terminus of Tidelands Avenue, to the west of the marina. Pepper Park provides picnic areas, children's play equipment, a boat launch, walking paths, a fishing pier, and a parking lot. The National City Aquatic Center is also within Pepper Park. The aquatic center provides recreational access to the Bay for activities such as kayaking and rowing, and also provides environmental education courses.

Finally, the westernmost parcel within the Balanced Plan area (west of Pepper Park) includes the FPR area for the marine terminal. The FPR is an unleased area of the marine terminal. Similar to other parcels within and adjacent to the Balanced Plan area, this parcel is currently used for open storage area associated with marine terminal operations.

GB Capital Component

The waterside portion of the GB Capital Component includes the gangway and docks of the existing Pier 32 Marina, which contains approximately 250 boat slips. A rip-rap shoreline separates the marina from the landside portions of the GB Capital Component, and a narrow jetty (approximately 714 feet long) extends from the southeastern corner of the marina, enclosing most of the marina off from Sweetwater Channel. There is a narrow road leading to the jetty on the strip of land to the east of the marina. In addition, the GB Capital Component would involve improvements within Sweetwater Channel, which is currently an open water channel. West of the GB Capital Component, the north side of Sweetwater Channel includes berthing space adjacent to the NCMT, as well as Pepper Park, which includes a public fishing pier, a boat launch facility, and a dock for recreational water sports associated with the aquatic center. On the southern side of Sweetwater Channel, the channel abuts the natural, undeveloped shoreline of the San Diego Bay National Wildlife Refuge. A line of buoys extends across Sweetwater Channel near the western end of the jetty across to the wildlife refuge, to prevent watercraft from traveling farther east within the channel. In addition, two bridges—one containing railroad tracks, the other for pedestrian/bicycle use—cross the channel just east of the marina. The bridges are of the same height, run parallel to each other a few feet apart, and are only elevated a few feet above the channel, which allows only small watercraft (kayaks, canoes) to travel beneath.

To the north of the marina, on the landside portion of the marina (south of 32nd Street), several buildings provide marina-related services: administrative offices, boater services (e.g., laundry, boat maintenance services, showers/bathrooms, storage), and a restaurant. These parcels also

accommodate outdoor amenities for marina users, including a swimming pool, putting green, and barbecue areas. In addition, a public walking/biking path is south of 32nd Street. Parking lots are south of 32nd Street, and along the western side of the marina, generally north/northeast of the aquatic center. Parcels within the northeastern portion of the Balanced Plan area, east of Marina Way, include undeveloped open space west and upslope of Paradise Marsh. The parcels west of Marina Way and north of 32nd Street provide open storage lots for marine terminal operations (primarily for imported cars that arrive at the NCMT before being transported to other destinations), as does the parcel to the southeast of the 32nd Street and Tidelands Avenue intersection.

Pasha Rail Improvement Component

The proposed alignment for the Pasha Rail Improvement Component, which is contained within the Balanced Plan area, would traverse the lot bounded on the north and northwest by existing railroad tracks (BNSF Railway tracks and the NCMT loop track) and the National Distribution Center, on the east by Marina Way, on the south by 32nd Street, and on the west by Tidelands Avenue. This lot is also identified as Lot K (see Figure 3-20 in Chapter 3, *Project Description*). This lot currently contains open storage space for the marine terminal-related (currently specifically vehicle import) operations at the NCMT.

Pasha Road Closures Component

The Pasha Road Closures Component would occur on Tidelands Avenue between Bay Marina Drive on the north and 32nd Street on the south as well as West 28th Street between Quay Avenue and Tidelands Avenue. This segment of Tidelands Avenue is an existing vehicular route that is approximately 70 feet wide and includes two vehicle travel lanes (one for each direction of travel), striped bike lanes (one in each direction of travel), on-street parking on both sides of the roadway, and a sidewalk along the eastern side of the roadway. Railroad crossing gates exist approximately 80 feet north of the intersection with 32nd Street where the NCMT balloon/loop track crosses Tidelands Avenue.

West 28th Street is a two-lane vehicular route that is approximately 48 feet wide and includes two travel lanes, one in each direction. On-street parking is available along the roadway, but there are no sidewalks.

Bayshore Bikeway Component

The bike routes are proposed primarily along existing roadways, including Marina Way, Bay Marina Drive, Cleveland Avenue, McKinley Avenue, West 19th Street, Tidelands Avenue, West 14th Street, and Civic Center Drive. These routes would travel through some natural undeveloped land, but most of the uses include light industrial/warehouses as well as commercial and some residential areas.

City Program – Development and Plan Amendments Components

The City Program – Development and Plan Amendments Components project area is roughly bounded by West 23rd Street to the north (with the exception of Parcel 7, which extends approximately 200 feet north of West 23rd Street), Bay Marina Drive to the south, McKinley Avenue to the east, and BNSF Railway tracks to the west. Parcels 1 through 6 comprise undeveloped lots that have been previously developed and show evidence of previous grading and the presence of

concrete remnants. Parcel 7 contains the historic National City Santa Fe Depot, which includes a local history museum and railroad, as well as a yard with several historic railcars on display.

Surrounding Community

Much of the area surrounding the project components is associated with the working waterfront (i.e., the NCMT) and, as such, most of the uses are industrial in the area and support or are ancillary to the operations of maritime shipping operations. Land use designations in the project area include primarily Marine Terminal or Marine-Related Industrial.

In general, existing land uses in the area west of the project site comprise the marine terminal, railroads (the BNSF Railway and the San Diego & Arizona Eastern Railroad tracks), open storage lots (primarily for imported vehicles associated with marine terminal-related operations), warehouse and cold storage buildings, trucking companies, building material suppliers (e.g., lumber, metal works), and cement terminals. Generally east and north of the project site, closer to I-5, there are some commercial uses, including hotels, restaurants, and office space, as well as some residential uses.

An existing portion of the Bayshore Bikeway route is immediately adjacent to the project site, to the east and southeast, and Paradise Marsh, also to the east, with I-5 just beyond that (approximately 590 feet to the east of the project site).

4.9.3 Applicable Laws and Regulations

4.9.3.1 State

California Public Trust Doctrine

The Public Trust Doctrine is a common-law doctrine that provides that public lands and waters are held by the state or its delegated trustee (i.e., the California State Lands Commission) for the benefit of all people. All tide and submerged lands, granted or ungranted, as well as navigable rivers, sloughs, and other waterbodies, are governed by the public trust. The Public Trust Doctrine, as overseen by the California State Lands Commission, restricts the type of land uses allowed on public lands, including the District Tidelands. The Public Trust Doctrine limits the uses of sovereign lands to waterborne commerce, navigation, fisheries, open space, water-oriented recreation, ecological habitat protection, or other recognized public trust purposes. The project site within the District's jurisdiction would be subject to the Public Trust Doctrine.

California Coastal Act

The CCA of 1976 (Public Resources Code, Section 30000 et seq.) was enacted by the legislature as a comprehensive scheme to govern land use planning for the entire coastal zone of California. A combination of local land use planning procedures and enforcement to achieve maximum responsiveness to local conditions, accountability, and public accessibility, as well as continued state coastal planning and management through the CCC, is relied upon to ensure conformity with the provisions of the act (Section 30004(a) and (b)). Chapter 8, Article 3, of the CCA establishes a framework for ports, including the Port of San Diego, to develop a PMP by which to designate land and water uses and issue individual coastal development permits within their jurisdictions.

Individual PMPs require review and certification by the CCC, including any amendments to the certified PMP. The CCC must certify a PMP or PMPA if it finds that the PMP or PMPA meets the requirements of, and is in conformity with, the CCA. In addition, Chapter 6, Article 1, of the CCA establishes the requirement for each local government lying, in whole or in part, within the coastal zone to prepare an LCP for that portion of the coastal zone within its jurisdiction, which requires review, approval, and certification by the CCC. Finally, Chapter 3 of the CCA, Coastal Resources Planning and Management Policies, provides broad statewide policies for public access to the coast, recreation, marine environment, land resources, and development.

With respect to coastal resources, SLR increases the risk of flooding, coastal erosion, and saltwater intrusion into freshwater supplies, which have the potential to threaten many of the resources that are integral to the California coast, including coastal development, coastal access and recreation, habitats (e.g., wetlands, coastal bluffs, dunes, beaches), water quality and supply, cultural resources, community character, and scenic quality. (See Chapter 3 of the CCA, codified at Public Resources Code Sections 30200 et. seq., for more details on what constitutes a coastal resource, which include coastal habitats; coastal development; public access and recreation opportunities; cultural, archaeological, and paleontological resources; and scenic and visual qualities.) For example, if SLR changes the flooding patterns or increases the flooding of the Tidelands or within the City's jurisdiction, new development must be sited to minimize the risk to users and property from said flooding, and if that new development is not a coastal-dependent use, development of a seawall or similar improvement to protect the users or property may not be available. CCA policies relevant to SLR include:

- 30210: In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.
- 30211: Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.
- 30220: Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.
- 30234: Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. Existing commercial fishing and recreational boating harbor space shall not be reduced unless the demand for those facilities no longer exists or adequate substitute space has been provided. Proposed recreational boating facilities shall, where feasible, be designed and located in such a fashion as not to interfere with the needs of the commercial fishing industry.
- 30235: Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply.
- 30236: Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

- 30253: New development shall: (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard; (2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs . . . (5) Where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.

A list of applicable policies and an associated consistency review are provided below in Table 4.9-3.

California Coastal Commission Sea Level Rise Policy Guidance

The CCA mandates the provision of public access and recreation along the coast, coastal habitats, and other sensitive resources, as well as provision of priority visitor-serving and coastal-dependent or coastal-related development with simultaneous minimization of risks from coastal hazards. The CCC's *Sea Level Rise Policy Guidance* is not a regulation or law but provides a potential framework for addressing SLR in PMPs, LCPs, and Coastal Development Permits. Adopted by the CCC in 2015, the guidance provides principles for addressing SLR in the coastal zone, an overview of the science behind SLR as well as a description of the potential consequences, and an outline of the steps for addressing SLR in PMPs, LCPs, or Coastal Development Permits. The project's consistency with the CCC's *Sea Level Rise Policy Guidance* is provided below in Table 4.9-3.

Port Act

The San Diego Unified Port District Act (Port Act) (Appendix 1 of the California Harbors and Navigation Code) was adopted in 1962. Through the Port Act, the State of California delegated its authority to the District to manage and control certain tidelands and submerged waters. Specifically, the District was established for the development, operation, maintenance, control, regulation, and management of the Tidelands and lands underlying the inland navigable waters of San Diego Bay. Under the Port Act, the District was granted broad police powers. The Port Act requires the District to exercise its land management authority and powers over (1) the Tidelands and submerged lands granted to the District and (2) any other lands conveyed to the District by any city or the County of San Diego or acquired by the District. The Port Act grants the District exclusive police power over property and development subject to its jurisdiction. A PMP is also required by the Port Act, which must specify the land and water uses within the District's jurisdiction.

4.9.3.2 Regional

San Diego Regional Bike Plan

The San Diego Regional Bike Plan, prepared by the San Diego Association of Governments (SANDAG) in 2010, provides a plan for the creation of a regional bicycle system of interconnected bicycle corridors, support facilities, and programs to make bicycling more practical and desirable to a broader range of people in the region (SANDAG 2010). The plan is intended to implement goals of the Regional Comprehensive Plan and Regional Transportation Plan, which call for more transportation options (alternatives to vehicles) and a balanced regional transportation system to support smart growth and a more sustainable region. The regional bicycle network is planned to consist of a combination of standard bicycle facilities, including Class I bike paths, Class II bike lanes, and Class III bike routes; it also proposes bicycle boulevards and cycle tracks, which are defined, respectively, as local roads or residential streets that have been enhanced with traffic-calming and

other treatments to facilitate safe and convenient bicycle travel and a hybrid type of bicycle facility that combines a separated path with the on-street infrastructure of a conventional bike lane. Figure 3-21 of the Regional Bike Plan shows a Class I facility that is planned for the project area as part of the Bayshore Bikeway.[2] The Bayshore Bikeway is a 26-mile regional bicycle route that encircles San Diego Bay from Harbor Drive and Tidelands Avenue.

4.9.3.3 Local

San Diego Unified Port District

San Diego Unified Port District Port Master Plan

The PMP is the governing land use document for physical development within areas granted in trust to the District. The PMP, as certified, provides the District permitting authority and the ability to issue coastal development permits for the portions of granted or District jurisdiction that have been incorporated into the PMP (District 2020).

The PMP is organized into four sections: (I) Introduction, (II) Planning Goals, (III) Master Plan Interpretation, and (IV) Precise Plans. Section II establishes planning goals and related policies that pertain to development and operation of lands within the District's jurisdiction. Section III provides additional land use objectives and criteria that apply to specific land use types, including commercial, industrial, recreation, conservation, military, and public facility uses. Section IV identifies 10 Planning Districts, each of which is guided by a Precise Plan that guides future development.

A list of applicable policies and an associated consistency review is provided below in Table 4.9-3.

Climate Action Plan

The District adopted a CAP in December 2013. The CAP includes an inventory of existing (2006) and projected emissions in 2020, 2035, and 2050 and identifies the District's greenhouse gas (GHG) reduction goals and measures to be implemented to support meeting the statewide reduction goals set forth in Assembly Bill (AB) 32 (1990 levels by 2020). Port-wide 1990 emissions were not quantified given activity data gaps; instead, a base year of 2006 was used to calculate reductions needed at the Port to reach 1990 levels by 2020. Consistent with AB 32 targets, a 10% reduction target (471.3 million metric tons of carbon dioxide equivalent [$MTCO_2e$] in 2006 and estimated 426.6 million $MTCO_2e$ in 1990 statewide) was used as the Port-wide reduction target for 2020.[3]

Sources throughout the project area that generate GHG emissions include tenant facilities (e.g., hotels, marinas), maritime activity (e.g., the movement of goods associated with marine terminal operations), and Port operations (e.g., District-owned building energy consumption and fleet activity). The CAP's 2020 projections and reduction targets (to 1990 levels) for each sector are based on anticipated growth (e.g., increase in hotel rooms) for each emissions sector (e.g., mobile sources, building energy). For example, the CAP assumes a 5% annual growth in lodging-related

[2] SANDAG has previously indicated that the Bayshore Bikeway Component does not require an amendment to the Regional Bike Plan.

[3] The CAP also includes projected emissions and some reduction policies to achieve the reduction target of 25% less than 2006 baseline levels by 2035, but does not yet quantify those reductions.

uses between 2006 and 2020. Therefore, the CAP and its reduction targets are specific to the District's geography, type and intensity of uses, and future year projected conditions. Table 4.6-5 in Section 4.6, *Greenhouse Gas Emissions and Climate Change*, provides the CAP's 2006 baseline, projected future year (2020) GHG emissions, projected future year (2020) GHG emissions with the implementation of state measures, and future year GHG emission targets (1990 levels) for the Port as a whole. To achieve the requisite reductions, the CAP includes various reduction measures related to transportation and land use, alternative energy generation, energy conservation, waste reduction and recycling, and water conservation and recycling (District 2013). A consistency review with the District's CAP is provided in Section 4.6.

San Diego Bay Integrated Natural Resources Management Plan

The *San Diego Bay Integrated Natural Resources Management Plan* is a long-term strategy sponsored by two of the major managers of San Diego Bay: the U.S. Navy and District. Its intent is to provide direction for the good stewardship that natural resources require, while also supporting the ability of the U.S. Navy and District to meet their missions and continue functioning within the Bay. The core strategies of the plan are to: (1) manage and restore habitats, populations, and ecosystem processes; (2) plan and coordinate projects and activities so that they are compatible with natural resources; (3) improve information sharing, coordination, and dissemination; (4) conduct research and long-term monitoring that supports decision-making; and (5) put in place a Stakeholder's Committee and Focus Subcommittees for collaborative, ecosystem-based problem-solving in pursuit of the goal and objectives (U.S. Department of the Navy and Port of San Diego 2013).

City of National City

National City General Plan

Adopted in June 2011, the *National City General Plan* serves as the foundation for all planning decisions in the city by identifying the preferred future for National City and steering land use and development policies in that direction. In addition to the seven required elements (land use, circulation, housing, safety, noise, open space, and conservation), the General Plan includes, either as a component of a required element or as a stand-alone element, additional policies for community character, agriculture, sustainability, nuisances, health and environmental justice, and education and public participation (City of National City 2011). Table 4.9-3 lists the applicable policies from the general plan and describes the proposed project's consistency with those policies.

National City Local Coastal Program

Pursuant to the CCA of 1976, the City prepared an LCP, the most recent amendment of which was adopted by the City and certified by the CCC in 1997. The LCP covers only the portion of the city that falls within the coastal zone, including all of the area west of I-5 and a small area east of I-5, south of 30th Street. Portions of the project site fall within the city's coastal zone area west of I-5, including Subareas I (Industrial) and Subarea II (Marsh, Bayfront). The LCP includes a land use plan; policies related to the use of the coastal zone, including public access, recreation, marsh preservation, visual resources, industrial development, and environmental hazards; and an implementation plan to implement the City's certified LCP, as required by the Coastal Act (City of National City 1997). As noted above under Section 4.9.2.1, *Existing Land and Water Use Designations*, the LCP designates the area within the project site for Tourist Commercial/Recreation. Table 4.9-3 lists the applicable policies from the LCP and describes the proposed project's consistency with those policies.

Harbor District Specific Area Plan

As discussed above, portions of the project site fall within the HDSAP, the main objective of which is to be consistent with and carry out the requirements of the certified LCP. The City's HDSAP, which constitutes an "implementation action" under CCA Section 30108.4, was adopted by the City and certified by the CCC in 1998. The HDSAP area encompasses an approximately 40.8-acre area spanning from Bay Marina Drive (formerly 24th Street) on the north, I-5 on the east, and Sweetwater Channel on the south; the western boundary is formed by the historic mean high-tide line that roughly follows the railroad tracks to a point east of Tidelands Avenue, then follows a diagonal split of the property northwest of the Marina Way/32nd Street intersection and a slight diagonal split of the marina. The HDSAP area is separated into four subareas, with the project site falling into subareas B-1, B-2, B-3, and D. The overarching objectives of the HDSAP include (City of National City 1998):

- The conservation of Paradise Marsh, adjacent delineated wetlands, and associated plant and animal species, in coordination with the [U.S. Fish and Wildlife Service], [California Department of Fish and Wildlife] and interested non-governmental organizations and persons.
- The design and implementation of permanent functional habitat buffers around Paradise Marsh and adjacent wetlands, in cooperation with the National Wildlife Refuge.
- Attractive, convenient, environmentally sustainable, and safe multi-modal public access to existing, approved, or planned recreational facilities within the Harbor District, and in adjacent Port Planning Subareas 58 and 59, including through the extension of the Harrison Avenue Public Access Corridor and appropriate linkages with the San Diego Bayshore and Sweetwater River Bikeway systems.
- Site- and development-specific conservation and development standards that protect coastal habitat, public access, recreational, visual, and cultural resources, contribute to high quality appearance and design, and provide for economically feasible commercial recreational facilities and uses.
- Appropriately sized and located infrastructure, including traffic circulation and parking, to support permitted density and intensity of uses within the Harbor District and adjacent priority uses.

Table 4.9-3 lists all of the applicable policies from the HDSAP and describes the proposed project's consistency with those policies.

National City Bicycle Master Plan

The *National City Bicycle Master Plan* provides a broad vision, strategies, and actions to improve conditions for bicycling in National City. The plan provides direction for expanding the existing bikeway network, connecting gaps, and ensuring greater local and regional connectivity (City of National City n.d.). The goals for the plan include:

- A city where bicycling is a viable travel choice for users of all abilities,
- A safe and comprehensive local and regionally connected bikeway network
- Environmental quality, public health, recreation and mobility benefits through increased bicycling.

Consistent with the SANDAG Regional Bicycle Plan, the *National City Bicycle Master Plan* designates roadways within the project area for Class I bike paths (i.e., extension of the Bayshore Bikeway).

City of National City Climate Action Plan

As noted in Section 4.6.3.3 in Section 4.6, CARB encourages local governments to adopt a reduction goal for municipal operations emissions and move toward establishing similar goals for community emissions that parallel the state's commitment to reducing GHG emissions (CARB 2008). The City adopted its CAP in 2011. The CAP includes an inventory of existing (2005) community-wide emissions as well as an inventory of existing (2006) governmental operations emissions. The CAP also provides community-wide and government operations emissions forecasts for 2020 and 2030 based on growth associated with buildout of the General Plan. The CAP includes a reduction goal of 15% below 2005/2006 baseline emission levels (468,107 $MTCO_2e$ community-wide, and 4,315 $MTCO_2e$ for government operations) by 2020 to reach the goals set forth in AB 32 (1990 levels by 2020). The CAP proposes measures and policies on a community-wide and government level that will allow the City to reach its reduction targets (City of National City 2012). A consistency review with the City's CAP is provided in Section 4.6.

City of National City Land Use Code (Title 18 Zoning)

The Land Use Code (LUC) is the City's zoning code (Municipal Code Title 18 Zoning), which establishes regulations for the use and development of land. The LUC implements the broad policies of the City's General Plan by specifying the kinds and types of uses permitted on each parcel of land, the intensity of development allowed, and standards for development such as setbacks, lot coverage, parking, and building heights. The LUC includes the Official Zoning Map, which establishes the zoning of land within in the city. The City Council adopted the amended LUC and Official Zoning Map on February 7, 2012. Both became effective on March 8, 2012.

4.9.4 Project Impact Analysis

4.9.4.1 Methodology

The proposed project includes amendments to the PMP; the City's LCP, General Plan, HDSAP, LUC, and Bicycle Master Plan; construction and operation of up to four hotels, an RV park, modular cabins, dry boat storage, an expanded marina, and potential aquaculture in Sweetwater Channel; construction and operation of a rail connector track and storage track; reconfiguration of the street network within the project area; construction and operation of Segment 5 of the Bayshore Bikeway; and construction and operation of hotel, restaurant, retail, and/or a combination of tourist-/visitor-serving commercial development north of Bay Marina Drive. The following impact analysis evaluates the land use and planning impacts that would result should the proposed project be implemented. Based upon the existing conditions described under Section 4.9.2, the impact analysis qualitatively assesses the direct and indirect impacts on the existing community and provides a project consistency analysis with the existing applicable plans and regulations. Merely being inconsistent with an existing plan or regulation would not necessarily be considered a significant impact under CEQA; rather, the inconsistency must result in a substantial adverse effect on the environment that has not already been disclosed through analyses of other resources in this EIR. However, the proposed project must be consistent with the CCA, and such consistency is addressed below.

4.9.4.2 Thresholds of Significance

The following significance criteria are based on Appendix G of the State CEQA Guidelines and provide the basis for determining significance of impacts associated with land use and planning resulting from implementation of the proposed project. The determination of whether a land use and planning impact would be significant is based on the professional judgment of the District as lead agency as supported by evidence in the administrative record.

Impacts are considered significant if the proposed project would result in any of the following:

1. Physically divide an established community.
2. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Moreover, the project site is within the coastal zone and, pursuant to Executive Order S-13-08, the CCC considers the potential impacts of SLR on a proposed project in determining consistency with the CCA and the 2015 *Sea Level Rise Policy Guidance*. The guidance provides an overview of the best available science on SLR and a recommended methodology for addressing SLR in CCC planning and regulatory actions (CCC 2015). Therefore, this issue is addressed under Threshold 2, and a consistency analysis is provided in Table 4.9-3.

The analysis of whether the project would have a significant impact related to physical division of an established community is provided in Section IX of the Initial Study/Environmental Checklist (Appendix A of the Draft EIR), which determined that the proposed project would result in no impact. The analysis and conclusions therein are incorporated by reference into this section of the Draft EIR and are summarized in Chapter 6, *Additional Consequences of Project Implementation*. Therefore, only Threshold 2 is discussed in the impact analysis that follows.

4.9.4.3 Project Impacts and Mitigation Measures

Threshold 2: Implementation of the proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Impact Discussion

This discussion analyzes consistency of the project components with the District's PMP, the CCA, the CCC's *Sea Level Rise Policy Guidance*, and the City's General Plan, LCP, and HDSAP (see Table 4.9-3). The proposed project would require amendments to the District's PMP as well as the City's LCP, General Plan, HDSAP, LUC, and Bicycle Master Plan that would include changes to jurisdictional boundaries, changes to subarea boundaries, and changes to land use, specific plan, and zone designations (City Program – Plan Amendments Component).

The project site is within the Coastal Zone and there are several CCA policies that are relevant to SLR. Therefore, the extent to which existing environmental conditions would affect the project's

future users and infrastructure, particularly in terms of SLR, is addressed below in Table 4.9-3 and the following discussion.

Table 4.9-3. Project Consistency with Relevant Goals, Objectives, and Policies

Goal, Policy, Objective	Proposed Project Consistency
Port Master Plan – Section II (Planning Goals) (Addresses Balanced Plan, most of the GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and portions of the Bayshore Bikeway Component)	
Goal I. Provide for the present use and enjoyment of the bay and tidelands in such a way as to maintain options and opportunities for future use and enjoyment.	**Consistent.** The proposed project would expand opportunities for the use and enjoyment of the Bay and Tidelands through a substantial increase in visitor-serving amenities in the project area, including new hotels and restaurants, new RV spaces, modular cabins, additional boat slips and moorings for recreational vessels, increased park space, new/expanded walking and biking paths, and fewer restrictions on the existing aquatic center, which would draw greater numbers of people to use the facility. As such, the project would be consistent with this policy.
Goal II. The Port District, as trustee for the people of the State of California, will administer the Tidelands so as to provide the greatest economic, social, and aesthetic benefits to present and future generations.	**Consistent.** The proposed project would provide for new economic and social opportunities through a substantial increase in visitor amenities along the National City waterfront, including increasing/ diversifying lodging opportunities (e.g., through hotels, RV spaces, modular cabins) and building new restaurants. The project would increase social and aesthetic benefits as well through the addition or expansion of public access opportunities, with more park space, reduced restrictions on the National City Aquatic Center, and new/expanded bike and walking trails. Therefore, the project would be consistent with this policy.
Goal III. The Port District will assume leadership and initiative in determining and regulating the use of the bay and tidelands. • Encourage industry and employment generating activities which will enhance the diversity and stability of the economic base. • Encourage private enterprise to operate those necessary activities with both high and low margins of economic return.	**Consistent.** The project would involve creation of a land use pattern intended to foster the development of high-quality commercial and recreational uses and improve the cargo and transportation efficiencies of the marine terminal operations while establishing buffers to wildlife preserves. As such, the proposed project would introduce new industry- and employment-generating activities while also increasing operational efficiencies at the NCMT. In addition, the project would largely involve private enterprises for these improvements. Therefore, the project would be consistent with this policy.
Goal IV. The Port District, in recognition of the possibility that its actions may inadvertently tend to subsidize or enhance certain other activities, will emphasize the general welfare of statewide considerations over more local ones and public benefits over private ones.	**Consistent.** The proposed project would encourage multiple water-dependent uses of the Tidelands, including increasing the efficiency of the existing marine terminal-related operations, enhancing/ expanding recreational boating opportunities through improvements to the existing marina as well as reducing restrictions on the aquatic center, and

Goal, Policy, Objective	Proposed Project Consistency
• Develop the multiple purpose use of the tidelands for the benefit of all the people while giving due consideration to the facts and circumstances related to the development of tideland and port facilities. • Foster and encourage the development of commerce, navigation, fisheries, and recreation by the expenditure of public monies for the preservation of lands in their natural state, the reclamation of tidelands, the construction of facilities, and the promotion of its use. • Encourage non-exclusory uses on tidelands.	increasing public access opportunities to the bayfront. In addition, the proposed project would be developed in a fashion that would be respectful of the adjacent wildlife refuges. Because the project would expand existing bike and walking trails as well as provide for a variety of new lodging opportunities, the project would also accommodate a variety of users, including out-of-town visitors and locals. As such, it would not encourage exclusory uses on tidelines.
Goal V. The Port District will take particular interest in and exercise extra caution in those uses or modifications of the Bay and Tidelands, which constitute irreversible action of loss of control. • Bay fills, dredging and the granting of long-term leases will be taken only when substantial public benefit is derived.	**Consistent.** The proposed project would include improvements to the existing marina, including the construction of three new docks (one floating dock and two pile-supported docks), which would require modification to Sweetwater Channel with the addition of pile-supported dock space. As discussed in Section 4.8, *Hydrology and Water Quality,* the project would be required to obtain a Water Quality Certification from the RWQCB, which would specify methods for ensuring the protection of water quality during construction activities in Sweetwater Channel. In addition, as discussed in Section 4.3, *Biological Resources*, mitigation measures would be implemented to ensure the proposed project would not adversely affect open water habitat function, wildlife resources, or water circulation. Furthermore, the proposed project would create significant public benefit from increased recreational, commercial (lodging, dining), and enhanced public access opportunities.
Goal VI. The Port District will integrate the tidelands into a functional regional transportation network. • Improved automobile linkages, parking programs and facilities, so as to minimize the use of waterfront for parking purposes. • Providing pedestrian linkages. • Encouraging development of non-automobile linkage systems to bridge the gap between pedestrian and major mass systems.	**Consistent.** The proposed project would involve construction of Segment 5 of the Bayshore Bikeway, which would increase opportunities for non-automobile linkages to the Bay. The project would also reconfigure the roadway network, which would result in a more efficient land use pattern that would benefit the adjacent marina and increase the opportunity for new pedestrian access to the waterfront.
Goal VII. The Port District will remain sensitive to needs, and cooperate with adjacent communities and other appropriate governmental agencies in Bay and Tideland development. • The Port District will attempt to avoid disproportionate impact on adjacent jurisdictions both in benefits and any possible liabilities, which might accrue through bay and tideland activities.	**Consistent.** The City is a co-applicant for the project and working with the District to create an improved land use pattern north of Sweetwater Channel, with the intent of fostering the development of high-quality commercial and recreational uses and improving the cargo and transportation efficiencies of the marine terminal while establishing buffers to wildlife preserves. In addition, the District would coordinate with the City and other agencies with jurisdiction over environmental resources in the

Goal, Policy, Objective	Proposed Project Consistency
	project vicinity that would be affected by implementation of the proposed project as necessary to eliminate or reduce environmental impacts on those resources. As it relates to other resources (e.g., social and economic benefits), in making its decision whether to adopt the proposed PMPA, the Board of Port Commissioners will exercise its discretion so as to provide the greatest economic, social, and aesthetic benefits to present and future generations.
Goal VIII. The Port District will enhance and maintain the bay and tidelands as an attractive physical and biological entity. • Each activity, development and construction should be designed to best facilitate its particular function, which function should be integrated with and related to the site and surroundings of that activity. • Views should be enhanced through view corridors, the preservation of panoramas, accentuation of vistas, and shielding of the incongruous and inconsistent. • Establish guidelines and standards facilitating the retention and development of an aesthetically pleasing tideland environment free of noxious odors, excessive noise, and hazards to the health and welfare of the people of California. • Establish and foster an artworks program to promote, enhance, and enliven the waterfront experience through the public and private placement of works of art.	**Consistent.** As shown on Figures 3-7 and 3-11, the project proposes multiple view corridors, offering views to Sweetwater Channel and the Paradise Marsh Wildlife Refuge. The project would introduce, through new, expanded pedestrian and bicycle facilities, opportunities for public access to the waterfront and increase lodging opportunities, which would enliven an area that has traditionally been mostly industrial uses. In addition, per Board of Port Commissioners Policy No. 608, *Tenant Percent for Art Program*, GB Capital and Pasha would be required to allocate at least 1% of their respective total construction costs (if minimum project costs per Policy No. 608 are exceeded) to the art budget or artwork-related expenses.
Goal IX. The Port District will ensure physical access to the bay except as necessary to provide for the safety and security, or to avoid interference with waterfront activities. • Provide "windows to the water" at frequent and convenient locations around the entire periphery of the bay with public right-of-way, automobile parking and other appropriate facilities. • Provide access along the waterfront wherever possible with promenades and paths where appropriate, and elimination of unnecessary barricades which extend into the water.	**Consistent.** Although direct physical access to the Bay is not possible in the project area because of the presence of the NCMT and U.S. Navy facilities, the proposed project would increase public access opportunities along Sweetwater Channel as well as preserve existing and provide new view corridors to Sweetwater Channel. In addition, the project would expand recreational boating opportunities, which would allow for access to the Bay via Sweetwater Channel.
Goal X. The quality of water in San Diego Bay will be maintained at such a level as will permit human water contact activities. • Maintain a program of flotsam and debris cleanup.	**Consistent.** The proposed project would involve additional slips and moorings within and adjacent to the existing marina, which could increase the opportunity for debris or pollutants to enter into the Bay via Sweetwater Channel. However, per the District's Jurisdictional Runoff Management Program, the project would be required to incorporate low-impact design features and stormwater pollutant

Goal, Policy, Objective	Proposed Project Consistency
• Insure through lease agreements that Port District tenants do not contribute to water pollution. • Cooperate with the Regional Water Quality Control Board, the County Health Department, and other public agencies in a continual program of monitoring water quality and identifying the source of any pollutant. • Adopt ordinances, and take other legal and remedial action to eliminate sources of pollution.	control BMPs, which would ensure that water quality impacts would be less than significant. In addition, the District would require the tenants of the proposed project to comply with the San Diego Harbor Safety Plan, which provides mariners with the District's policies regarding pollution prevention and protection of the region's resources (OSPR 2020). Finally, the marina and boaters would be required to implement BMPs during operational activities, ensuring that marina operations would not degrade water quality. These measures would ensure that the water quality of Sweetwater Channel and the Bay would be protected during project construction and operation (see Section 4.8, *Hydrology and Water Quality*).
Goal XI. The Port will protect, preserve, and enhance natural resources, including natural plant and animal life in the Bay as a desirable amenity, an ecological necessity, and a valuable and usable resource. • Promote and advance public knowledge of natural resources through environmental educational materials. • Identify existing and potential assets. • Keep appraised of the growing body of knowledge on ecological balance and interrelationships. • Encourage research, pilot programs, and development in aquaculture as long as it is consistent with this goal. • Administer the natural resources so that impacts upon natural resource values remain compatible with the preservation requirements of the public trust.	**Consistent.** The project site is adjacent to the Paradise Marsh Wildlife Refuge (to the east) and the San Diego Bay National Wildlife Refuge (to the south across Sweetwater Channel). As detailed in Section 4.3, *Biological Resources*, the proposed project would result in less-than-significant impacts on sensitive biological resources within these preservation areas with implementation of the following mitigation measures: Conduct Surveys and Monitoring for Estuary Seablite (**MM-BIO-1**); Consult with CDFW Regarding Belding's Savannah Sparrow (**MM-BIO-2**); Avoid Marsh Endemic Avian Species During the Breeding Season (**MM-BIO-3**); Avoid Impacts on Osprey During Nesting Season (January 15–June 15) (**MM-BIO-4**); Avoid Impacts on MBTA Avian Species, Including Non-Listed Avian Species (**MM-BIO-5**); Conduct Surveys for Maternal Bat Roost Sites and Avoid Seasonal Impacts (**MM-BIO-6**); Implement a Marine Mammal, Fish Injury, and Green Sea Turtle Monitoring Program During Pile Driving Activities (**MM-BIO-7**); Install Fencing Adjacent to Bayshore Bikeway Route 1 (**MM-BIO-8**); Implement Bird Strike Reduction Measures on New Structures (**MM-BIO-9**); Provide Compensatory Mitigation for Impacts on Coastal Sage Scrub (**MM-BIO-10**); Provide Compensatory Mitigation for Impacts on Coastal Salt Marsh Habitat (**MM-BIO-11**); Develop an Eelgrass Mitigation and Monitoring Plan in Compliance with the California Eelgrass Mitigation Policy (**MM-BIO-12**); and Implement Overwater Coverage Mitigation Through the USACE Permitting Process in Consultation with CCC, NMFS, USFWS, RWQCB, and the District to Compensate for Loss of Open Water Habitat and Function (**MM-BIO-13**).

Goal, Policy, Objective	Proposed Project Consistency
Port Master Plan – Section III (Industrial Land Use Objectives and Criteria) (Addresses Balanced Plan, most of the GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and portions of the Bayshore Bikeway Component)	
Industrial activities on tidelands should: • Be located in convenient proximity to other industrial areas and to living areas from which there are interconnecting transit and thoroughfare routes.	**Consistent.** The project areas designated for marine-related industrial uses are adjacent to, and provide open storage areas for, marine terminal-related operations at the NCMT. The project area is also proximal to residential areas of the city, with Bay Marina Drive, West 19th Street, and West 16th Street providing connections to the terminal from these residential areas. In addition, existing and proposed bike routes would provide connections.
• Provide, under single ownership, a variety of reasonably level, well-drained sites on land that is either vacant or on developed lands that can be phased out economically for redevelopment.	**Consistent.** The project would consolidate areas currently used for open storage related to marine terminal operations to create a comprehensive land use plan for redevelopment of the area, diversify uses in the project area, and simultaneously improve the efficiencies of the marine terminal. Although the proposed project would result in an increase in impervious surface area, the project would implement low-impact development features and comply with the local jurisdiction's BMP manual, which would result in improved drainage under project conditions.
• Provide sites that are economical to develop and adequate for main buildings, accessory storage, off-street loading, off-street parking, and buffer strips.	**Consistent.** The project would maintain an adequate accessory storage area for operations associated with the marine terminal while accommodating a more economical use of the area surrounding the existing marina.
• Be designed to meet performance standards adequate to avoid nuisances, thereby insuring compatibility with surrounding uses.	**Consistent.** As required by **MM-NOI-6** (in Section 4.10, *Noise and Vibration*), if the Pasha Rail Improvement Component and GB Capital Component are both constructed, a noise barrier shall be constructed between the two sites to reduce noise levels.
• Be limited to industrial uses which have a definite need for the availability of utilities, direct access to railroads and major thoroughfares, and the proximity of either airport or water frontage.	**Consistent.** The portion of the project site that would involve marine-related industrial uses as well as construction of new storage and connector railroad tracks would support the adjacent NCMT.
• Provide substantial benefits to both local economic needs and to the regional hinterland.	**Consistent.** The proposed project would improve the efficiency of marine-terminal related operations at the NCMT, providing local jobs and other local economic benefits while supporting the regional and national economy. In addition, the project would involve reconfiguring existing land uses to allow for more visitor-serving uses, which would also support local and regional economic needs.

Goal, Policy, Objective	Proposed Project Consistency
Port Master Plan – Section III (Commercial Land Use Objectives and Criteria) (Addresses Balanced Plan, most of the GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and portions of the Bayshore Bikeway Component)	
Each commercial area on District lands should have: • convenient access from major arterials or transportation terminals and ample on-site parking for patrons.	**Consistent.** The project site is accessible from Marina Way, which connects to I-5 via Bay Marina Drive. In addition, the project would include up to 820 parking spaces within the Pier 32 Marina complex and parking spaces at Pepper Park, and approximately 60 additional parking spaces may be provided east of the marina in the SDG&E right-of-way for the GB Capital Component, which would be adequate with respect to meeting the parking demand generated by the project.
• a unifying design theme enhancing the overall aesthetical qualities of the site and insuring compatible land and water uses benefiting the unique aspect of commercial activities at bayside locations.	**Consistent.** The project would involve construction of several new buildings, including a new marina administration/village building, modular cabins, dry boat storage areas, and hotels. These buildings would be constructed in a style that would be similar and complementary to existing buildings at the marina, with a modern design that makes extensive use of wood siding and corrugated metal (for the roof) and incorporates a roof shed with clerestory windows.
• a minimization of the competitive hazard to existing or potential business in the general vicinity.	**Consistent.** In making its decision whether to adopt the proposed PMPA, the Board of Port Commissioners would exercise its discretion as to whether the proposed project would minimize the competitive hazard to existing or potential business in the general vicinity.
• a clustering of commercial activities enhancing cumulative attraction wherein complementary and similar units have high incidence of customer interchange and draw more business by being together.	**Consistent.** The proposed project would add commercial uses that would create a commercial cluster and enhance and draw upon existing attractions at the marina, Pepper Park, and the aquatic center as well as the existing commercial uses off Bay Marina Drive and Marina Way in the northern portion of the project area.
Port Master Plan – Section III (Public Recreation Land Use Objectives and Criteria) (Addresses Balanced Plan, most of the GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and portions of the Bayshore Bikeway Component)	
Parks, plazas, public access ways, vista points and recreational activities on Port lands and tidelands should: • provide a variety of public access and carefully selected active and passive recreational facilities suitable for all age groups including families with children throughout all seasons of the year. • enhance the marine, natural resource, and human recreational assets of San Diego Bay and its shoreline for all members of the public. • provide for clear and continuous multilingual information throughout Port lands and facilities	**Consistent.** The proposed project would increase the size of Pepper Park; provide new public access ways, including new bike paths and walkways; and reduce restrictions on the aquatic center to allow for larger class sizes, more water equipment rentals, financial flexibility, etc. Therefore, the project would increase public access and active and passive recreational opportunities in the project area.

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to and about public access ways and recreational areas.	
California Coastal Act (All Project Components)	
Section 30210. In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.	**Consistent.** The proposed project would increase public access and recreational opportunities within the coastal zone through the expansion of Pepper Park, reduced restrictions on the existing aquatic center, the construction of new/expanded bike and pedestrian paths, and the creation of view corridors.
Section 30211. Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.	**Consistent.** The proposed project would increase access to Sweetwater Channel and the Bay (through the expansion of recreational opportunities via Sweetwater Channel). It would not introduce any features that would impede existing access points.
Section 30212. (a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) It is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, [or] (2) Adequate access exists nearby.	**Consistent.** The proposed project would increase public access opportunities in the project area by introducing new/expanded pedestrian and bike paths, increasing recreational boat docking areas, and reducing restrictions (e.g., docent-supervised water equipment rentals) on activities at the aquatic center. Access to these amenities exists from existing and proposed roadways in the area, including Marina Bay Drive and Marina Way. In addition, the project would ensure protection of the nearby wildlife refuges through the placement of buoys, which would restrict access to these areas, and with buffer zones, including a 100-foot low-impact uses buffer, and a 200-foot building setback.
Section 30212.5. Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.	**Consistent.** The proposed project would be spread out over a relatively large area. It would offer adequate parking to meet demand, including 820 parking spaces within the Pier 32 Marina complex and parking spaces at Pepper Park, and approximately 60 additional parking spaces may be provided east of the marina in the SDG&E right-of-way for the GB Capital Component. In addition, there is on-street parking available throughout the project area. As such, overcrowding or overuse of any single area would not occur.
Section 30213. Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. The commission shall not: (1) require that overnight room rentals be fixed at an amount certain for any privately owned and operated hotel, motel, or other similar visitor-serving	**Consistent.** Pepper Park is a recreational facility that is free and accessible to the public; the proposed project includes a 2.5-acre expansion to Pepper Park, whereafter the park would remain free and accessible to the public. The project would also implement several recreational opportunities, including bicycle and pedestrian paths. In addition, the project would expand Pepper Park and reduce

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facility located on either public or private lands; or (2) establish or approve any method for the identification of low or moderate income persons for the purpose of determining eligibility for overnight room rentals in any such facilities.	restrictions at the aquatic center in order to attract more visitors.
Section 30214. (a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:	**Consistent.** The project site is relatively flat. Topographic and geologic site characteristics would not hinder public access.
(1) Topographic and geologic site characteristics.	
(2) The capacity of the site to sustain use and at what level of intensity.	**Consistent.** The proposed project would be developed at an intensity consistent with the land use designations of the District's PMP and the City's LCP. It would maintain or increase public access opportunities within the site and to the waterfront.
(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.	**Consistent.** There are no residential uses in the immediate vicinity; however, natural resources adjacent to the project area include the Paradise Marsh and San Diego Bay National Wildlife Refuges (see Section 4.3). The project would increase recreational activity adjacent to these resources through the extension of a bike path, increased recreational boating opportunities, and reduced restrictions on recreational water-based activities at the aquatic center (e.g., kayaking, canoeing). These activities could affect these natural resources; however, the project would include fencing next to the Bayshore Bikeway (see **MM-BIO-8**), buffer zones, and buoys to ensure that public access would not infringe on the adjacent natural wildlife refuges (see Section 4.3).
(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.	**Consistent.** Commercial uses within the project site would rely on trash receptacles and janitorial and landscaping services to reduce the potential for litter to affect the aesthetic value of the project area and adjacent properties. In addition, the marina already operates a skimmer along the docks and dinghy racks to collect trash from the water's surface. Security measures (e.g., cameras) are in place at the marina. These would also be included with new commercial development at the project site.
Section 30220. Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.	**Consistent.** The project proposes to reduce existing restrictions on the aquatic center, which offers classes and rents equipment for kayaking, rowing, paddle boarding, etc. In addition, the project would increase docking capacity at the marina.
Section 30223. Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.	**Consistent.** The proposed project includes additional amenities for boaters within the upland/landside

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	areas of the project site to support the users of the marina.
Section 30224. Increased recreational boating use of coastal waters shall be encourage, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harboring refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.	**Consistent.** The project would increase the docking area for recreational boats, increase dry boat storage areas (if the dry boat storage proposed by the GB Capital Component is constructed), and increase amenities for boaters.
Section 30230. Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significant. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.	**Consistent.** The proposed project would not involve development in any sensitive habitats or other marine resources. It would include buffers and buoys to ensure that the project would not adversely affect the nearby wildlife refuges (see Section 4.3).
Section 30231. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.	**Consistent.** The proposed project would involve development in and adjacent to natural streams and riparian habitat (i.e., Sweetwater Channel and Paradise Marsh Wildlife Refuge, respectively). The proposed project would include BMPs and low-impact design measures to prevent project site runoff from adversely affecting the water quality of the Bay (see Section 4.8). In addition, although the proposed project would involve development adjacent to wetland wildlife refuges and in open water habitat, analysis has determined that the project would not adversely affect these resources (see Section 4.3).
Section 30232. Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.	**Consistent.** Construction activities associated with the proposed project could involve some use of hazardous materials (e.g., petroleum products). As discussed in Section 4.7, *Hazards and Hazardous Materials*, the Resource Conservation and Recovery Act; Hazardous and Solid Waste Act; California Code of Regulations, Title 22 and Title 26; and California Hazardous Waste Control Law would govern proper procedures for containment, spill control, and disposal of hazardous waste generated during demolition and construction. Implementing the inventory accountability, spill prevention controls, and waste disposal controls associated with these regulations would limit both the frequency and

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	severity of potential hazardous materials releases during demolition and construction. In addition, during operations, the existing marina provides, and will continue to provide upon project implementation, oil recycling services for its recreational boating customers and uses a skimmer to clean oil sheen from the water surface.
Section 30233. (a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: (3) In open coastal waters, other than wetlands, including streams, estuaries, lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that would provide public access and recreational opportunities.	**Consistent.** The proposed project would require the placement of structural pilings to support two new recreational docks as part of marina expansion, which would increase recreational boating opportunities in the project area.
(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.	**Consistent.** The proposed project would not involve dredging. However, mitigation measures have been identified to ensure that pile driving associated with the proposed project would avoid significant disruptions within marine and wildlife habitats (see Section 4.3).
(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California," shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division. For the purposes of this section, "commercial fishing facilities in Bodega Bay" means that not less than 80 percent of all boating facilities proposed to be developed or improved, where the improvement would create additional berths in Bodega Bay, shall be designed and used for commercial fishing activities.	**Consistent.** The project would increase recreational activity adjacent to the Paradise Marsh and San Diego Bay National Wildlife Refuges, which are existing wetland areas, through the extension of a bike path, increased recreational boating opportunities, and reduced restrictions on recreational water-based activities at the aquatic center (e.g., kayaking, canoeing). These activities could affect these natural resources; however, the project would include fencing next to the Bayshore Bikeway (**MM-BIO-8**), buffer zones, and buoys to ensure that public access would not infringe on the adjacent natural wildlife refuges.

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(d) Erosion control and flood control facilities constructed on watercourses can impede the movement of sediment and nutrients that would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for these purposes are the method of placement, time of year of placement, and sensitivity of the placement area.	**Not applicable.** The proposed project would not implement erosion control or flood control facilities on a watercourse.
Section 30234. Facilities serving the commercial fishing and recreational boating industries shall be protected, and where feasible, upgraded. Existing commercial fishing and recreational boating harbor space shall not be reduced unless demand for those facilities no longer exists or adequate substitute space has been provided. Proposed recreational boating facilities shall, where feasible, be designed and located in such a fashion as not to interfere with the needs of the commercial fishing industry.	**Consistent.** There are no commercial fishing operations in the project vicinity; therefore, the proposed project would not affect such operations. In addition, the proposed project would maintain existing recreational boating opportunities and expand such opportunities with new support facilities and additional docking/mooring space.
Section 30234.5. The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.	**Consistent.** No commercial fishing facilities are located on the site; therefore, none would be affected by the proposed project. However, recreational boats that dock at the marina may engage in recreational fishing; as such, the proposed project would contribute to the protection of fishing activities.
Section 30235. Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out or upgraded where feasible	**Consistent.** No portion of the project area contains a natural shoreline. The proposed project would not involve construction of revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, or other features that would alter the natural shoreline. There are no existing marine structures that cause water stagnation or contribute to pollution problems or fishkills. The project would involve the construction of new docks and the placement of new moorings. The potential also exists for aquaculture. However, these operations would not cause water stagnation or fishkills. The project would implement BMPs to ensure that increased operations associated with the marina would not result in water pollution (see Section 4.8).
Section 30240. (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be	**Consistent.** As discussed in Section 4.3, the project would involve expansion of a marina within areas containing, or close to, eelgrass and open-water habitats. Mitigation measures have been identified to

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allowed within those areas. (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.	reduce any impacts the proposed project may have on those habitats. The project would not degrade environmentally sensitive habitat areas.
Section 30244. Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.	**Consistent.** As discussed in Section 4.4, *Cultural Resources, Tribal Cultural Resources, and Paleontological Resources*, the project site may contain archaeological or paleontological resources. However, mitigation measures would be implemented to reduce impacts on these resources.
Section 30250. (a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.	**Consistent.** The proposed project would be adjacent and contiguous to an existing urbanized and developed area. The proposed project would also be consistent with existing developments and land uses, as discussed above. The project site, the NCMT, and the LCP area of National City are adequately served by existing public services (see Section 4.12, *Public Services and Recreation*). The proposed project would involve consolidation of land uses under the District's jurisdiction. All project components would be within a currently developed area.
Section 30251. The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.	**Consistent.** The proposed project would include public access corridors that provide visual and physical access to the water. Development would be consistent with the character of the surrounding area. For example, buildings associated with the GB Capital Component are anticipated to be constructed in a style that would be similar and complementary to existing buildings at the marina, with a modern design that makes extensive use of wood siding and corrugated metal (for the roof) and incorporates a roof shed with clerestory windows. **MM-AES-7** requires that the GB Capital Component be designed and constructed using a similar architectural style and materials as the existing Pier 32 Marina to provide a natural continuity with the existing marina complex, thus ensuring consistency with Section 30251 (see Section 4.1, *Aesthetics and Visual Resources*). Furthermore, the project would increase public access in the area through the addition of new pedestrian and bike paths.
Section 30252. The location and amount of new development should maintain and enhance public access to the coast by	**Consistent.** The proposed project would not expand or facilitate the provision of transit services. All existing transit is east of I-5 with the nearest transit

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(1) facilitating the provision or extension of transit service	center, the 24th Street Transit Center, near the intersection of West 22nd Street and Wilson Avenue. This transit center provides the nearest passenger rail (San Diego Metropolitan Transit System Blue Line trolley) as well as the nearest bus stops. The City Program – Development Component and some of the bike path segments would be approximately 0.25 mile from this transit center, which is generally considered an acceptable walking distance from a transit station. In addition, the GB Capital Component and Pepper Park expansion would be accessible from existing transit via the bike paths.
(2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads	**Consistent.** The project would not involve residential development and, with the exception of a short segment of the proposed bikeways, would not be adjacent to residential development. Routes 1 and 3 of the Bayshore Bikeway Component would be adjacent to some existing residential units (apartments) along McKinley Avenue and to a small portion of land zoned MCR-1 Multi-Use Commercial-Residential (maximum 24 dwelling units per acre), approximately 2,700 feet north of the intersection of Bay Marina Drive and Marina Way. Adequate access to the project area would be provided via Bay Marina Drive and Marina Way.
(3) providing non-automobile circulation within the development	**Consistent.** The proposed project would develop Segment 5 of the Bayshore Bikeway and increase pedestrian access to the waterfront and throughout the project area.
(4) providing adequate parking facilities or providing substitute means of serving the development with public transportation	**Consistent.** The proposed project would provide approximately 820 parking spaces within the Pier 32 Marina complex and parking spaces at Pepper Park, and approximately 60 additional parking spaces may be provided east of the marina (in the SDG&E right-of-way) for the GB Capital Component. As such, the project would provide adequate parking facilities to meet demand.
(5) assuring the potential for public transit for high intensity uses such as high-rise office buildings	**Consistent.** The proposed project would increase the visitor-serving attractions in and around the National City waterfront but would not involve high-intensity uses such as high-rise office buildings.
(6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.	**Consistent.** Residential development on District tidelands is prohibited by the Port Act and is not being proposed. The proposed project would not involve residential development and or increase the residential population in the project vicinity (see Chapter 6). The proposed project would increase public access opportunities to the National City waterfront.
Section 30253. New development shall do all of the following:	**Consistent.** The proposed project would not increase risks to life and property due to geologic, flood, or fire hazards (see the Initial Study/Notice of Preparation

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(a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.	in Appendix A regarding geologic or fire hazards, Section 4.6 regarding SLR, and Section 4.8 regarding flood hazards).
(b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.	**Consistent.** The project site is along a human-made shoreline, not a bluff or cliff. No natural landforms would be altered by the proposed project.
(c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development.	**Consistent.** As analyzed in Section 4.2, *Air Quality and Health Risk*, the project would be temporarily inconsistent with the Regional Air Quality Strategy and the State Implementation Plan. Mitigation would involve updates to the Regional Air Quality Strategy and the State Implementation Plan to incorporate the proposed land uses, which would ensure consistency with the requirements of the air pollution control district.
(d) Minimize energy consumption and vehicle miles traveled.	**Consistent.** At a minimum, new construction occurring under the proposed project would be required to comply with the current California Building Standards Code, Title 24, California Code of Regulations, which includes a broad set of requirements for energy conservation and green design. The proposed project would involve construction of Segment 5 of the Bayshore Bikeway, which would expand regional biking opportunities, provide an alternative to vehicle usage, and help reduce VMT. As documented in Section 4.13, *Transportation, Circulation, and Parking*, the project would generate increased employment-based VMT; however, mitigation would require implementation of Transportation Demand Management and VMT reduction measures to reduce VMT to the extent feasible.
Section 30255. Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.	**Consistent.** The proposed project would include expanded docking and mooring opportunities at an existing recreational boat marina, which is a coastal-dependent use. In addition, the proposed project would reduce restrictions on the water-dependent opportunities at the aquatic center. Finally, the project would designate a buffer zone adjacent to the adjacent wildlife refuge and would not involve any development within a wetland.
Section 30260. Coastal-dependent industrial facilities shall be encouraged to locate or expand within existing sites and shall be permitted reasonable long-term growth where consistent with this division. However, where new or expanded coastal-dependent industrial facilities cannot feasibly be accommodated consistent with	**Consistent.** The proposed project would involve redesignation of land currently designated for marine-related industrial uses to a commercial recreational designation. The project would also involve improvements to the rail system that serves coastal-dependent maritime shipping operations at the NCMT. Although the project would result in a

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other policies of this division, they may nonetheless be permitted in accordance with this section and Sections 30261 and 30262 if (1) alternative locations are infeasible or more environmentally damaging; (2)to do otherwise would adversely affect the public welfare; and (3) adverse environmental effects are mitigated to the maximum extent feasible.	decrease in the open storage area for Pasha's vehicle import business, the addition of new connector and storage railroad tracks would offset this loss by improving freight efficiencies and, as such, reducing Pasha's demand for the open storage area. No increase in Pasha's throughput would result as part of the project.
Section 30703. The California commercial fishing industry is important to the State of California; therefore, ports shall not eliminate or reduce existing commercial fishing harbor space, unless the demand for commercial fishing facilities no longer exists or adequate alternative space has been provided. Proposed recreational boating facilities within port areas shall, to the extent it is feasible to do so, be designed and located in such a fashion as not to interfere with the needs of the commercial fishing industry.	**Consistent.** The proposed project would include expansion of an existing recreational boat facility; there are no commercial fishing operations in the project vicinity. Therefore, proposed expansion of the recreational boat marina would not interfere with commercial fishing operations.
Section 30705. (a) Water areas may be diked, filled, or dredged when consistent with a certified port master plan only for the following: …(2) New or expanded facilities or waterfront land for port-related facilities. (3) New or expanded commercial fishing facilities or recreational boating facilities. (d) For water areas to be diked, filled, or dredged, the commission shall balance and consider socioeconomic and environmental factors.	**Consistent.** The proposed project would involve placement of piles in Sweetwater Channel as part of expansion of an existing recreational boat dock and moorings. Expansion of the recreational boating facility would not require dredging or diking.
Section 30706. In addition to the other provisions of this chapter, the policies contained in this section shall govern filling seaward of the mean high tide line within the jurisdiction of ports: (a) The water area to be filled shall be the minimum necessary to achieve the purpose of the fill. (b) The nature, location, and extent of any fill, including the disposal of dredge spoils within an area designated for fill, shall minimize harmful effects to coastal resources, such as water quality, fish or wildlife resources, recreational resources, or sand transport systems, and shall minimize reductions of the volume, surface area, or circulation of water. (c) The fill is constructed in accordance with sound safety standards which will afford reasonable protection to persons and property against the hazards of unstable geologic or soil conditions or of flood or storm waters. (d) The fill is consistent with navigational safety.	**Consistent.** The proposed project would involve construction of two pile-supported docks as part of expansion of the existing recreational boat marina. The number of piles would be the minimum number required to meet structural and safety requirements. The proposed project, including the placement of piles, would not interfere with navigation in the area. Mitigation measures would be implemented to ensure that the proposed project would not adversely affect open water habitat function, wildlife resources, or water circulation (see Section 4.3).

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Section 30708. All port-related developments shall be located, designed, and constructed so as to: (a) Minimize substantial adverse environmental impacts.	**Consistent.** As documented throughout this EIR, the proposed project would minimize substantial adverse environmental impacts to the extent feasible.
(b) Minimize potential traffic conflicts between vessels.	**Consistent.** The proposed project would include expansion of an existing recreational boat marina, which would result in a minor increase in vessel traffic in the project vicinity. This minor increase in personal watercraft would not add a substantial number of new users to San Diego Bay. In addition, boaters traveling to and from the project site would stay within the navigational channels designated by the District and adhere to the provisions of the San Diego Harbor Safety Plan (OSPR 2020).
(c) Give the highest priority to the use of existing land space within harbors for port purposes, including, but not limited to, navigational facilities, shipping industries, and necessary support and access facilities.	**Consistent.** The proposed project has been designed to ensure that it would not interfere with operations, including vessel berthing, at the adjacent NCMT.
(d) Provide for other beneficial uses consistent with the public trust, including, but not limited to, recreation and wildlife habitat uses, to the extent feasible.	**Consistent.** The proposed project would expand recreational opportunities within the project area by increasing the size of Pepper Park, reducing operational restrictions at the aquatic center, and providing new bike and pedestrian paths to the waterfront. It would be consistent with the public trust commitments of the District.
California Coastal Commission Sea Level Rise Policy Guidance – Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits (Addresses Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component)	
Establish the sea level rise range for the proposed project.	**Consistent.** Based on the components included in the project, an SLR scenario that falls between the CCC's low-risk aversion and medium-high risk aversion was selected for 2030, 2050, and 2100 (see Section 4.6).
Determine how sea level rise impacts may constrain the project site.	**Consistent.** See Section 4.6 for future rates of SLR and projections developed by the Ocean Protection Council and adopted by the CCC for San Diego. The SLR projections were mapped (see the *Impact of Sea Level Rise on the Proposed Project* section following this table) using the U.S. Geological Survey Coastal Storm Modeling System inundation layers closest to the projected values. The Coastal Storm Modeling System SLR inundation zones were overlaid on the proposed project components to determine potential areas of flooding under average and 100-year storm conditions. This analysis determined that parts of the proposed Bayshore Bikeway Component, Pepper Park expansion in the FPR area, the Pasha Road Closures Component, and the GB Capital Component

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	are expected to be permanently or temporarily inundated by 2100.
Determine how the project may impact coastal resources over time, considering sea level rise.	**Consistent.** See Section 4.6 for a review of SLR impacts on existing coastal resources, including structures, public access and recreation, and coastal habitats. As analyzed in Section 4.6, structures, public access and recreational facilities, and habitat are projected to be affected by SLR flooding. However, project features, such as buffers, modification of the existing jetty, designation of open space, and expansion of Pepper Park are anticipated to assist in protection of these coastal resources.
Identify project alternatives to both avoid resource impacts and minimize risks to the project.	**Consistent with Mitigation Measures.** The Balanced Plan (i.e., Pepper Park expansion), GB Capital Component, Pasha Road Closures Component, and Bayshore Bikeway Component are all projected to be flooded due to SLR (see the *Impact of Sea Level Rise on the Proposed Project* section following this table) and do not include adaptation strategies to minimize the risks. Site-appropriate mitigation measures (**MM-LU-1** to **MM-LU-5**) were developed to minimize the risk of SLR and storm surge–driven flooding.[4]
Finalize project design and submit permit application.	**Consistent.** To be completed after the CEQA process is complete, as is standard. The proposed project will require applications with final project design and issuance of CCA permits. The mitigation measures, including **MM-LU-1** to **MM-LU-5**, will be a condition of any Coastal Development Permit, if approved.
National City General Plan (Addresses small portion of GB Capital Component, City Program – Development Component, and most of Bayshore Bikeway Component)	
Policy LU-2.4. Provide additional recreational open space areas and connect these areas to trails, bikeways, pedestrian corridors, and other open space networks, where feasible.	**Consistent.** The proposed project would involve expansion of Pepper Park as well as reduced restrictions on the aquatic center. In addition, the proposed project would increase pedestrian and bike paths throughout the project area, including Segment 5 of the Bayshore Bikeway.
Policy LU-2.6. Support development and redevelopment that creates jobs for all income levels.	**Consistent.** The proposed project would involve expanding and concentrating visitor-serving commercial uses west of I-5, including new hotels, which would bring new jobs into the National City area.
Policy LU 3.1. Work with neighboring jurisdictions in planning contiguous areas in order to ensure compatible land uses.	**Consistent.** The proposed project represents a collaboration between the City and the District to increase visitor-serving uses and public access to the waterfront surrounding the Pier 32 Marina and

[4] The intent of this step in the CC guidance is to identify SLR adaptation options that could be implemented during project design or phased in over time based on monitoring triggers to protect the development from the impacts of SLR without exacerbating impacts on coastal and environmental resources. The adaptation options may include not building in a given area if it is at high risk or integrating engineering and/or nature-based adaptation solutions into the project design.

Goal, Policy, Objective	Proposed Project Consistency
	Pepper Park, which are compatible uses with visitor-serving uses. The project would also involve improvements at the NCMT, including rail improvements and street reconfigurations, which would increase operational efficiencies at the NCMT.
Policy LU-3.3. Discourage development in areas with high natural resource value.	**Consistent.** The proposed project would buffer the adjacent wildlife refuge with a 100-foot buffer for low-impact uses and a 200-foot building setback to protect the natural resources of the wildlife refuge.
Policy LU-3.6. Prohibit the establishment of new residential and other sensitive land uses near industrial land uses and within the Harbor District (unless proposed as part of a mixed-use development adjacent to the 8th Street Trolley stop) and buffer existing residential uses and other sensitive land uses from industrial uses, while protecting and enhancing visitor-serving, commercial, retail, industrial, working waterfront, and maritime-related job-producing industries.	**Consistent.** The proposed project would not involve development of residential uses within the Harbor District or adjacent to industrial land uses. The project would involve the development of additional visitor-serving uses and the protection of maritime-related industries in the project area.
Policy LU-5.7. Work with the Port District regarding land use changes within the National City Bayfront area of the Port Master Plan. Encourage the establishment of additional visitor-serving commercial opportunities and cargo improvements to help revitalize the Harbor District.	**Consistent.** The proposed project would constitute implementation of this policy because it involves collaboration with the District to expand upon and concentrate visitor-serving uses within the Harbor District and consolidate Harbor District areas within the District's PMP to enable consistent implementation of the proposed project.
Policy LU-6.3. Maintain involvement in SANDAG's planning programs and activities.	**Consistent.** The proposed project would implement a portion of the Bayshore Bikeway, which is a bike path envisioned in SANDAG's Regional Bike Plan.
Policy LU-7.1. Establish incentives to promote the use and development of vacant infill parcels and the intensification of land uses on underutilized parcels to realize the greatest benefit to the community.	**Consistent.** The project would involve rezoning several city parcels and increasing the allowable floor area ratio to encourage a cohesive commercial development within the project site.
Policy LU-7.3. Plan and direct growth to areas where the existing infrastructure system has the capacity to handle additional development.	**Consistent.** The project exists in an already-developed part of the city and port where existing roads and public utilities exist. In addition, with implementation of mitigation measures to increase the size of water pipelines, existing infrastructure would have the capacity to meet the demands of the proposed project (see Section 4.14, *Utilities and Service Systems*).
Policy LU-7.6. Support the strategic conversion of certain sections of street into developable land only where the conversion positively contributes to the redevelopment and revitalization of the area, improves traffic safety, and does not impede emergency access.	**Consistent.** The proposed project would involve several street closures, street realignments, or partial closure/narrowing of a street to consolidate land uses and foster the development of high-quality commercial and recreational uses, thereby encouraging a land use pattern that would avoid operational inconsistencies among commercial, recreational, open space, and maritime uses. As discussed in Section 4.7 and Section 4.13, these road

Goal, Policy, Objective	Proposed Project Consistency
	closures would not adversely affect traffic safety or emergency access.
Policy LU-8.1. Require new development, including infill projects, to provide fair share contributions toward the costs of the public facilities, services, and infrastructure necessary to serve the development, including, but not limited to, transportation, water, sewer and wastewater treatment, solid waste, flood control and drainage, schools, fire and police protection, and parks and recreation.	**Consistent**. Although the City does not have established development impact fees, the City does charge a sewer capacity fee for new construction involving sewer infrastructure. Refer to **Impact-UTIL-3** and **MM-UTIL-4** in Section 4.14.
Policy LU-8.3. Development should only occur when adequate infrastructure is available to serve it.	**Consistent.** See response to Policy LU-7.3. As discussed, with implementation of mitigation to expand a water pipeline, existing infrastructure in the project area would have the capacity to meet the demands of the proposed project.
Policy LU-9.4. Encourage an overall high quality streetscape design, where feasible, that promotes narrow roadways; bike lanes; on-street parking; minimal curb cuts; enhanced crosswalks; appropriate sidewalk widths; landscaped medians and parkways; street trees, planters, and wells; street lighting; street furniture; wayfinding; enhanced paving; public art; and other features that contribute to the desired character for National City, where appropriate.	**Consistent.** The project components that would involve commercial development would all include a high-quality streetscape design, including the use of ornamental plants, and new bike paths and pedestrian walkways.
Policy LU-9.5. Apply design standards that promote the use of high quality building materials, architectural and site designs, landscaping, signage, and amenities.	**Consistent.** As part of the development review process, development falling under the City's jurisdiction would be reviewed for consistency and be required to comply with the City's Municipal Code, Title 18, Division 4, General Design and Development Regulations.
Policy LU-12.1. Encourage building placement, orientation, height, and mass to maintain and enhance views of San Diego Bay, open space, creeks, and other distinctive scenic resources.	**Consistent.** One of the primary objectives of the project is to increase public access to the waterfront. Specifically, the City Program – Development Component would increase the floor area ratio at those parcels and encourage taller buildings, which could offer distant views of the Bay and the San Diego Bay National Wildlife Refuge. In addition, new bike and pedestrian paths would be constructed throughout the project area, which would also provide opportunities for views of the Bay and the wildlife refuge.
Policy LU-12.3. Maintain and enhance views of locally admired buildings such as historic structures and other visually appealing manmade features.	**Consistent.** No revisions to the historic National City Santa Fe Depot are proposed by the project.

Goal, Policy, Objective	Proposed Project Consistency
National City Local Coastal Program Land Use Plan – Public Access (Addresses small portion of GB Capital Component, most of the Bayshore Bikeway Component, and City Program – Development Component)	
1. New public shoreline accessways shall be designated to and along Paradise Marsh and the Sweetwater River Channel as general shown in Figure No. 4 (of the LCP).	**Consistent.** The proposed project would include implementation of a new bike path along Paradise Marsh.
2. Public accessways as designated in Condition Number One shall be provided in conjunction with new development and protected through public access easements or other suitable means of conveyance.	**Consistent.** The proposed project's public accessways would be implemented as part of Bayshore Bikeway Component and the City Program – Development Component.
4. The precise location, design, identification of public accessways shall be consistent, to the maximum degree feasible, with the coastal access standards prepared jointly by the Coastal Commission and the Coastal Conservancy.	**Consistent.** The proposed project would require review and approval by the CCC, which would ensure that the proposed pedestrian paths, bike paths, and view corridors would be implemented according to CCC standards.
5. As indicated in the General Plan, it is the City's policy that the Bay Route Bikeway [sic] be extended southerly from 24th Street to the Paradise Marsh and boat launching ramp areas and across the Sweetwater River Channel to the Chula Vista Bayfront. It is also the City's policy that additional nature trails and bicycle trails be developed adjacent to the Paradise Marsh to connect the Bay Route Bikeway and Sweetwater River Flood Control Channel Trail System.	**Consistent.** The project would implement Segment 5 of the Bayshore Bikeway, which would extend the bike path from Civic Center Drive in the north to connect to the existing Bayshore Bikeway in the south, near Pier 32 Marina.
7. All new development shall incorporate adequate on-site parking to accommodate the parking demand generated. The number of required spaces for new development shall be determined during the implementation of phase of the Local Coastal Program, but shall be, at a minimum, consistent with the schedule of parking requirements of the Municipal Code.	**Consistent.** Although a specific development proposal has not been identified for the City Program – Development Component, during the development review process, the City would ensure that the parking requirements of the City's Municipal Code would be met at those parcels.
9. New development shall not interfere with desirable public access that may exist or be established by public use on or across private property, i.e., prescriptive rights. Desirable public access shall include access to natural or constructed coastal, recreational resources, except where necessary to protect fragile coastal resources or public safety, or where adequately provided for in another area. Development projects shall be reviewed to determine evidence of public use.	**Consistent.** The proposed project would include public access bike paths and public access through the City Program – Development Component.
National City Local Coastal Program Land Use Plan – Recreation (Addresses a small portion of the GB Capital Component, most of the Bayshore Bikeway Component, and City Program – Development Component)	
1. The National City bayfront shall be designated for tourist commercial and recreational use, as	**Consistent.** The proposed project would involve implementation of 100- and 200-foot buffer zones

Goal, Policy, Objective	Proposed Project Consistency
indicated in the Land Use Plan. Using the SD&AE railroad as a point of demarcation, consistent with the wetland area proposed for acquisition by the Army Corps of Engineers, the area located to the east, including Paradise Marsh and surrounding lands, shall be designated suitable for passive recreational uses only. The areas to the west and to the north of the Marsh shall be designated for tourist commercial and recreational uses. Wetland resources located west of the railroad, which are not proposed for public acquisition, shall be protected from incompatible development, consistent with marsh preservation policies.	adjacent to the marsh. Low-impact uses would be allowed within the 100-foot buffer zone, but the 200-foot buffer would delineate the required building setback.
2. The passive recreational area would accommodate the preservation of Paradise Marsh, along with the provision of public accessways and landscaped areas. Public access would be provided and managed consistent with the public access component of the LCP and the maintenance of wetland resource values. Beyond this area, a transition to more active uses could begin. Landscaped areas suitable for picnicking and general recreation may be appropriate.	**Consistent.** Walking paths, viewpoint stops, and a bike path would be constructed adjacent to the marsh; more intensive uses would comply with required building setbacks.
3. In order to meet specific recreational market demands and provide an attraction for secondary uses, overnight and boating uses shall be assigned the highest commercial development priority for the commercial recreational areas. For the area west of Paradise Marsh, appropriate uses include marina development, hotel/motel and restaurant facilities, recreational vehicle park/campground, dry-storage and boat service facility, and/or public park areas. For the area north of Paradise Marsh, hotel/motel facilities, restaurants and other tourist commercial use would be appropriate. The intensity of development shall be reviewed for impacts on traffic circulation. A Specific Plan shall determine the location of roadway improvements, based on resource protection standards, i.e., consistency with marsh preservation policies. Tourist commercial development in the above referenced areas shall be consistent with existing or currently planned road capacities to the north and south of the proposed tourist commercial area, including the planned extension of Harrison Avenue [now Marina Way] and the Tidelands Avenue crossing proposed in the City of Chula Vista Bayfront LCP. The intensity of development shall also be reflective of the constraints placed on these roadways by the Marsh Preservation policies of this Plan. Approval of these land uses shall not be considered precedent or increasing	**Consistent.** Several of this policy's recommendations have already been implemented (e.g., development of a marina) or are proposed as part of the project. The proposed project would continue to fully implement the recommendations by providing more docking space, an RV park, new hotels in the recommended areas, and an even larger public park area. Furthermore, pursuant to CEQA, roadway capacity is no longer considered for significance determinations.

Goal, Policy, Objective	Proposed Project Consistency
the capacity of the roads to the north and south of the tourist commercial area.	
4. In order to develop the tourist commercial and recreational area west of Paradise Marsh coordination with the Port District for concurrent development of Port District lands shall be encouraged. A higher quality project and a better design should result from such coordination and a more viable development will likely be attracted to the area.	**Consistent.** The proposed project would involve the transfer of property into the District's jurisdiction to consolidate land uses and create a more viable development.
6. To ensure that the recreational potential of the area is maximized, development shall take into account the proximity to the MTDB's "San Diego Trolley", the Bay Route Bikeway, and the Sweetwater River Flood Control Channel's recreational areas and trail systems, as well as recreational uses planned for the adjacent Chula Vista Bayfront and other waterfront development on San Diego Bay.	**Consistent.** To the extent feasible, the project would take advantage of and enhance connections to existing recreational amenities in the area, such as construction of Segment 5 of the Bayshore Bikeway. In addition, the City Program – Development Component would be able to take advantage of the proximity to the 24th Street Transit Center and the trolley connections that exist there.
National City Local Coastal Program Land Use Plan – Marsh Preservation (Addresses small portion of GB Capital Component, most of the Bayshore Bikeway Component, and City Program – Development Component)	
5. Wetlands in private ownership, which may be located in the CT, C and M, as well as OSR designated areas, shall be protected from development through the application of an overlay zone or other appropriate, implementing regulation proposed in Policy #1. Necessary protective measures, including adequate buffers, regulations regarding the design and siting of structures, etc., and open space easements shall be determined during the review of proposals for development, by application of criteria to be specified in the LCP Implementation Plan.	**Consistent.** The project includes the addition of buffer areas adjacent to Paradise Marsh, including a 100-foot buffer, which would limit activities to low-impact uses, and a 200-foot building setback buffer.
6. Landscaping in areas adjacent to wetlands shall include plants only which are not invasive of wetlands.	**Consistent.** As discussed in Section 3.4.2, regarding a small portion of the GB Capital Component, the component of the proposed project adjacent to the marsh would incorporate only native plantings and non-invasive ornamental plants.
7. Specific erosion control measures shall be approved, incorporated into development, be in place at the initial phase of work, monitored and maintained in conjunction with all grading activities, consistent with Section X(B)(4)(k) of the Implementation Plan, during the period of November 1 to April 1 of each year for all properties which drain directly to marsh and wetland areas. These properties shall include all properties located in the following area: • All properties between 35th Street and the southern City limits;	**Consistent.** The proposed project would involve development within property south of Bay Marina Drive (formerly 24th Street) and west of I-5. This property, which is currently identified in the City's LCP, would be moved into the District's PMP as part of this project. As discussed in Section 4.8, erosion control measures identified in the project-specific stormwater pollution prevention plan as well as the BMPs identified in the City's Jurisdictional Runoff Management Program would be implemented to ensure that erosion-related impacts would not affect adjacent wetlands during construction. During operation, post-construction BMPs identified in the

Goal, Policy, Objective	Proposed Project Consistency
• All properties in the area laying between 33rd Street, Hoover Avenue, 30th Street, and the MTDB San Diego Trolley Line; • All properties in the City's jurisdiction located westerly of Highway I-5 and south of 24th Street.	Jurisdictional Runoff Management Program would prevent the release of pollutants to surface waters. In addition, a portion of the Bayshore Bikeway Component would include a project-specific Stormwater Quality Management Plan to identify low-impact development features and pollutant control BMPs.
National City Local Coastal Program Land Use Plan – Visual Resources (Addresses a small portion of the GB Capital Component, most of the Bayshore Bikeway Component, and City Program – Development Component)	
2. To ensure that the development of the proposed commercial and recreational area adjacent to Paradise Marsh west of the SD&AE railroads is of the highest aesthetic quality, the City shall require that the development of the site shall be in accordance with the development standards and requirements to be determined by a Specific Plan for the area. The Specific Plan shall determine appropriate height limits, landscape elements, signage, and view protection and enhancement, consistent with the policies of the Land Use Plan. Vistas shall be provided from public roadways and public open space areas to Paradise Marsh and the Sweetwater River Flood Control Channel. Height limits shall be established as determined necessary to provide for focal points in key activity areas.	**Consistent.** The project would be consistent with the design standards and policies identified in the HDSAP, as detailed below.
Harbor District Specific Area Plan (Addresses a small portion of GB Capital Component, most of the Bayshore Bikeway Component, and City Program – Development Component)	
The objective of the Plan is to be fully consistent with, and adequate to carry out, the requirements of the certified LCP Land Use Plan and Implementation Program for all of the following:	
a. The conservation of Paradise Marsh, adjacent delineated wetlands, and associated plant and animal species, in coordination with the USFWS, CDFG [sic] and interested non-governmental organizations and person.	**Consistent.** The proposed project would implement a 100-foot buffer (for low-impact uses) and a 200-foot buffer (for the building setback) around Paradise Marsh to ensure that the proposed project would not adversely affect this natural resource.
b. The design and implementation of permanent functional habitat buffers around Paradise Marsh and adjacent wetlands, in cooperation with the National Wildlife Refuge.	**Consistent.** See response to Objective (a), above. The project would incorporate buffers around Paradise Marsh to protect this natural resource.
c. Attractive, convenient, environmentally sustainable, and safe multi-modal public access to existing, approved, or planned recreational facilities within the Harbor District, and in adjacent Port Planning Subareas 58 and 59, including through the extension of the Harrison Avenue [now Marina Way] Public Access Corridor and appropriate linkages with the San Diego Bayshore and Sweetwater River Bikeway systems.	**Consistent.** The project would incorporate new bicycle opportunities throughout the project area, such as Segment 5 of the Bayshore Bikeway.

Goal, Policy, Objective	Proposed Project Consistency
d. Site- and development-specific conservation and development standards that protect coastal habitat, public access, recreational, visual, and cultural resources, contribute to high quality appearance and design, and provide for economically feasible commercial recreational facilities and uses.	**Consistent.** The project would include consolidation of land uses to enable development of high-quality visitor-serving and recreational uses. The project would incorporate new public access routes and new view corridors as part of project design. In addition, as documented throughout this EIR, the project would implement BMPs (see Section 4.8) as well as mitigation measures to protect coastal habitats, public access, and recreational, visual, and cultural resources.
e. Appropriately sized and located infrastructure, including traffic circulation and parking, to support permitted density and intensity of uses within the Harbor District and adjacent priority uses.	**Consistent.** The existing traffic infrastructure is adequate with respect to accommodating the proposed project. In addition, the project proposes 820 parking spaces within the Pier 32 Marina complex and parking spaces at Pepper Park, and approximately 60 additional parking spaces may be provided east of the marina in the SDG&E right-of-way, which is adequate with respect to meeting projected parking demand (see Section 4.13). As discussed in Section 4.14, mitigation would require a new water pipeline to meet fire-flow demands.
f. Participation by the [Community Development Commission of the City of National City] in Specific Area planning, inter-agency coordination, property acquisition, and pre-project feasibility analyses to lead and assist in achieving the objectives and standards of the Plan.	**Consistent.** The project would involve coordination between the District and the City to correctly reflect parcels that are owned by the District and should be in the PMP, which would enable consolidation of land uses to accommodate better use of the land for commercial/recreational uses and increase the efficiency of adjacent industrial.

BMP = best management practice; C = Commercial Automotive; CDFG = California Department of Fish and Game (now CDFW); CDFW = California Department of Fish and Wildlife; CT = Tourist Commercial/Recreation; M = Industrial; MBTA = Migratory Bird Treaty Act; MTDB = Metropolitan Transit Development Board; NMFS = National Marine Fisheries Service; OSR = Open Space Wetland Preserve; RWQCB = Regional Water Quality Control Board; SD&AE = San Diego & Arizona Eastern Railroad; SDG&E = San Diego Gas & Electric Company; USACE = U.S. Army Corps of Engineers; USFWS = U.S. Fish and Wildlife Service; VMT = vehicle miles traveled

Impact of Sea-Level Rise on the Proposed Project

SLR-driven permanent and temporary inundation have the potential to affect several project components. See Section 4.6 for an overview of SLR projections in the area, which form the foundation of this analysis.

Parts of the Bayshore Bikeway Component route options, Pepper Park (including the proposed expansion), the FPR area, the Pasha Road Closures Component, and the GB Capital Component are all expected to be permanently and/or temporarily inundated by 2100, as described further below and shown on Figure 4.9-2. Table 4.9-4 summarizes the timeline of permanent and temporary inundation for each project component.

Pepper Park. By 2030, parts of Pepper Park would become temporarily inundated during a 100-year storm surge event, with greater portions of the park and the park expansion site experiencing temporary inundation through the end of the century (see Figure 4.9-3).



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Figure 4.9-2
Project Components & Sea Level Rise (Average Conditions)
National City Bayfront Projects & Plan Amendments EIR

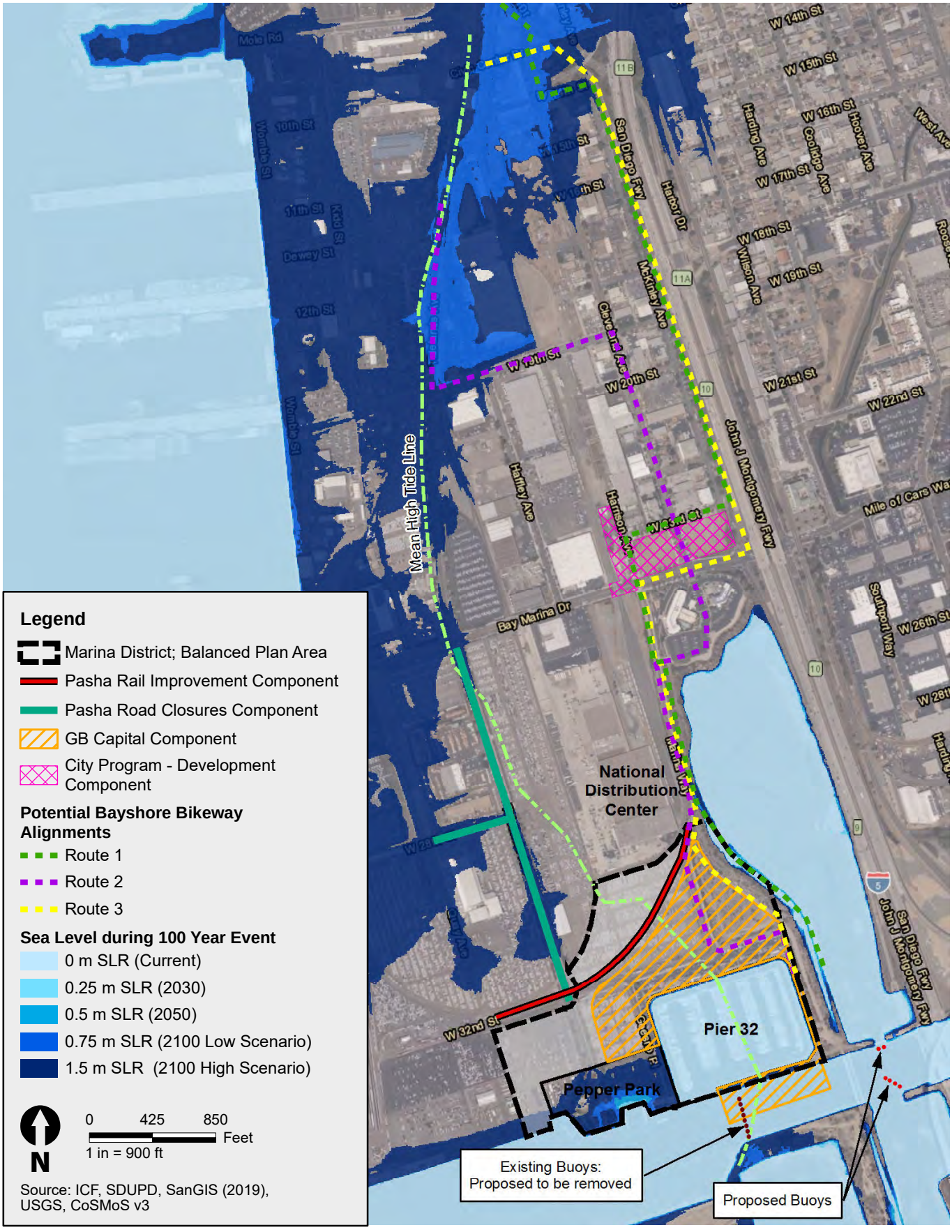

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Figure 4.9-3
Project Components & Sea Level Rise (100 year event)
National City Bayfront Projects & Plan Amendments EIR

GB Capital Component. The waterside components of the GB Capital Component (i.e., areas that are in water) would continue to be permanently inundated; however, the floating docks are able to adjust their elevation with SLR and storm surge. According to the available modeling and current site grading, the landside components beyond the existing rip-rap protection are not at risk of permanent or temporary inundation. The exception is the jetty, which appears to be projected to experience permanent inundation by 2100 under the high SLR projection, with a greater portion of the jetty exposed to temporary inundation as soon as 2050.

Pasha Road Closures Component. The westernmost end of the Pasha Road Closures Component area is projected to experience permanent inundation by 2100 under the high SLR projection, with a greater portion of the project component exposed to temporary inundation under the same time period and scenario.

Bayshore Bikeway Component. Currently, the portion of bikeway option Route 1 along the marsh would be inundated if it is not sufficiently elevated. By 2100, the northern ends of all three bikeway route options would be subject to permanent inundation under the high projection, and the routes would be subject to temporary inundation by the end of the century under the low and high projections.

FPR Area. The FPR area is expected to experience temporary inundation by 2100 under the high SLR projection.

Tidelands Avenue (south of the existing 32nd Street and proposed to be part of the reconfigured FPR), the proposed Marine-Related Industrial site, the Pasha Rail Improvement Component, and the City Program – Development Component. These areas and project components are not expected to experience permanent or temporary inundation through the end of the century.

Table 4.9-4. Projected SLR Flooding of Each Project Component for 2030, 2050, and 2100

	Temporary SLR Flooding (100-year)				Permanent SLR Flooding			
Areas and Project Components	2030	2050	2100 (RCP 4.5)	2100 (RCP 8.5)	2030	2050	2100 (RCP 4.5)	2100 (RCP 8.5)
Bikeway Route 1	●	●	●	●	●	●	●	●
Bikeway Route 2			●	●				●
Bikeway Route 3			●	●				●
Pepper Park (existing and proposed footprints)	●	●	●	●				●
FPR Area (existing and proposed footprints)				●				
Pasha Road Closures				●				●
GB Capital (waterside)	●	●	●	●	●	●	●	●
GB Capital (landside)		●	●	●				●
Tidelands Avenue (south of 32nd Street)								
Marine-Related Industrial Site								
Pasha Rail Improvement								

	Temporary SLR Flooding (100-year)				Permanent SLR Flooding			
Areas and Project Components	2030	2050	2100 (RCP 4.5)	2100 (RCP 8.5)	2030	2050	2100 (RCP 4.5)	2100 (RCP 8.5)
City Program – Development Component								

Note: Projected flooding by project area or project component is indicated by the ● symbol.

Without construction of the project, portions of the project area discussed above would still experience permanent and/or temporary inundation.

Impact Conclusions

Overall, the project involves creation of a Balanced Plan for the southern area of the project site, which would also entail the incorporation of land owned by the District but mistakenly included in the City's General Plan, LCP, and HDSAP into the PMP.

In addition, the continuation and expansion of the marina and Pepper Park and improvements to Pasha's marine terminal-related operations would be consistent with the subarea plans and land use designations identified by the PMP for the project area (see Section 4.9.2.1, above). The project may also involve the relocation of Granger Hall into the Pepper Park expansion area.

As demonstrated in Table 4.9-3, the project would be consistent with most of the policies that have been adopted for the purposes of avoiding or mitigating an environmental effect, including policies related to hydrology and water quality, aesthetic resources, public access, and biological resources. Consistency reviews for the District's CAP and the City's CAP are provided in Section 4.6.

Based on the above, the proposed project would cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. More specifically, the proposed project would conflict with the CCC *Sea Level Rise Policy Guidance*, which requires consideration of strategies to mitigate the impact of SLR on the proposed project. Impacts would be potentially significant.

Level of Significance Prior to Mitigation

Based on the best available science, implementation of the proposed project would cause a significant environmental impact due to the potential conflict with the CCC's *Sea Level Rise Policy Guidance*. The Route 1 option (along the marsh) of the Bayshore Bikeway Component is projected to be inundated in the near term, upon construction (**Impact LU-1**). In 2030 and 2050 temporary inundation is projected at the Pepper Park expansion of the Balanced Plan and the jetty area of the GB Capital Component (**Impact-LU-2**). In 2100, temporary and permanent inundation could occur at the Pepper Park expansion and FPR of the Balanced Plan, the jetty area of the GB Capital Component, the Pasha Road Closures Component, all three route options of the Bayshore Bikeway Component, and the FPR (**Impact-LU-3**).

Impact-LU-1: Permanent Inundation in the Near Term (Bayshore Bikeway Component). Currently, the portion of Route 1 of the Bayshore Bikeway Component along the marsh would be inundated if it is not sufficiently elevated as part of the design and construction of that route.

Impact-LU-2: Temporary Inundation for 2030 and 2050 (Balanced Plan, GB Capital Component). Parts of Pepper Park are anticipated to be temporarily inundated during a 100-year storm surge event in 2030, with greater portions of the park and the park expansion site experiencing temporary inundation through the end of the century (at or after 2050). The jetty area of the GB Capital Component may experience temporary inundation as soon as 2050 based on the high SLR projections.

Impact-LU-3: Temporary and/or Permanent Inundation for 2100 (Balanced Plan, GB Capital Component, Pasha Road Closures Component, Bayshore Bikeway Component). The Bayshore Bikeway Component, as well as the Pasha Road Closures Component, the Pepper Park expansion and FPR of the Balanced Plan, and the jetty of the GB Capital Component, are projected to be temporarily or permanently inundated, depending on the location (e.g., the Bayshore Bikeway Component is projected to be permanently inundated in the northern extents of all three route options, and temporarily inundated in additional areas), by 2100.

Mitigation Measures

For **Impact-LU-1:**

MM-LU-1: Design Bayshore Bikeway to Account for Sea-Level Rise in the Near Term (Route 1 Option of the Bayshore Bikeway Component). If Route 1 of the Bayshore Bikeway is selected, the coastal portions of the bikeway shall be elevated at least 1.4 feet above the current design flood elevation to account for SLR through 2050. Prior to issuance of building permits for Route 1, if that route option is selected, the project proponent shall submit plans demonstrating the raised elevation to the City's Community Development Department for review and approval and, if approved, implement the plans.

For **Impact-LU-2:**

MM-LU-2: Design the Pepper Park Expansion to Account for Sea-Level Rise through 2050 (Balanced Plan). The project proponent for the Pepper Park expansion shall design the park to accommodate water during future flooding events. Methods to accommodate water during future flooding events include, but are not limited to:

- Elevating the waterside promenades
- Regrading coastal edges and/or inland portions of the park as appropriate
- Creating living shorelines
- Ensuring that any new vegetation is salt tolerant
- Developing an operational plan to close the parking lot and move parked vehicles prior to storm events
- Including pervious surfaces such as turf, sand, and pervious concrete

Moreover, the public access to Pepper Park shall be restricted during flood events.

If any structures are constructed in Pepper Park or Granger Hall is relocated to Pepper Park, prior to construction or relocation, respectively, the project proponent shall conduct an engineering-level, site-specific assessment of the projected SLR at the site through 2050. If the

assessment projects the jetty to be temporarily inundated by 2050, the development shall include the following:

- Place any mechanical and electrical equipment at least 2 feet above the design flood elevation to reduce risk of flood damage. If equipment must be placed in lower areas, elevate base or ensure assets are composed of flood damage–resistant materials.
- Design water supply, sanitary sewage, and stormwater systems to minimize or eliminate infiltration of flood waters into systems and vice versa.
- Ensure that all building exterior walls are composed of materials that have an impermeable and waterproof membrane.
- Ensure that building foundations, if any, are capable of supporting future flood walls or temporary flood barriers.
- Design building openings (e.g., doors, windows, utility penetrations) to be capable of future retrofitting to make them watertight and resistant to flood loads.

Additionally, the project proponent shall create an early warning system to monitor the risk of potential flooding of any structure. An early warning system should consist of protocols for obtaining information on local weather alerts and established levels at which additional action (e.g., sandbagging) will be taken. Also, the project proponent shall establish emergency evacuation procedures for people to relocate to higher ground on short notice. Before a large storm, deployment of sandbags or inflatable barriers shall occur if deemed necessary.

MM-LU-3: Conduct Engineering-Level, Site-Specific Assessment of Sea-Level Rise through 2050 (GB Capital Component). The project proponent for the GB Capital Component shall conduct an engineering-level, site-specific assessment of the projected SLR at the site through 2050. If the assessment projects the jetty to be temporarily inundated by 2050, the development on the jetty shall include the following.

Smart Design Decisions – to be incorporated into building design and part of construction:

- Place any mechanical and electrical equipment at least 2 feet above the design flood elevation to reduce risk of flood damage. If equipment must be placed in lower areas, elevate base or ensure assets are composed of flood damage–resistant materials.
- Design water supply, sanitary sewage, and stormwater systems to minimize or eliminate infiltration of flood waters into systems and vice versa.
- Ensure that all building exterior walls are composed of materials that have an impermeable and waterproof membrane.

Future Adaptation Strategies – to be incorporated into building design and part of construction:

- Ensure that building foundations, if any, are capable of supporting future flood walls or temporary flood barriers.
- Design building openings (e.g., doors, windows, utility penetrations) to be capable of future retrofitting to make them watertight and resistant to flood loads.
- Design key structural elements of the jetty to allow future increases in the elevation of the jetty.

Operational Strategies – to be implemented during operation:

- Establish an early warning system to monitor the risk of potential flooding. An early warning system should consist of:
  - Protocols for obtaining information on local weather alerts and established levels at which additional action (e.g., sandbagging) will be taken
  - Protocols for monitoring water levels at nearby storm gauges prior to the storm arrival, and regular checking of the water levels along the jetty as the storm progresses
- Establish emergency evacuation procedures for people to relocate to higher ground on short notice.
- Obtain backup power generators for occupiable development on the jetty and portable pumps and ensure there is sufficient fuel to operate these. Establish protocols for operating said generators and pumps during storm events or other such events.
- Before a large storm, deploy sandbags or inflatable barriers.
- Before a storm, test emergency power sources and pumps and ensure there is sufficient fuel to run these, and inspect building exteriors to ensure there are no penetrations that lack flood proofing.
- Restrict public access during storms or flooding events.

Prior to issuance of the first building permit for any development on the jetty, the assessment and project plans (revised pursuant to the findings of the assessment, if the assessment projects inundation by 2050) shall be submitted to the District's Development Services Department and the City's building permit department for review and approval.

For Impact-LU-3:

MM-LU-4: Use Updated Modeling and Monitoring for Adaptive Management for 2100 Scenario (Balanced Plan, GB Capital Component, Pasha Road Closures Component, portion of Bayshore Bikeway Component). For areas of the Balanced Plan (Pepper Park and the FPR), the GB Capital Component, the Pasha Road Closures Component, and the portions of the Bayshore Bikeway Component (within the District's jurisdiction) that are projected to be inundated in 2100, the District shall conduct ongoing monitoring of these project component sites every 5 to 10 years. If, through monitoring, the observed SLR conditions appear to be consistent with the 2100 projections identified in this EIR, a site-specific assessment shall be conducted to identify future SLR projections using the best science available at the time and identify appropriate adaptation strategies to ensure that these areas are resilient to coastal flooding and inundation from SLR. Such strategies may include a neighborhood-level effort, raising of grades, additional shoreline protection, removal or movement of assets, and conversion of impervious surfaces to pervious surfaces.

MM-LU-5: Use Updated Modeling and Monitoring for Adaptive Management for 2100 Scenario (most of Bayshore Bikeway Component). For the areas of the Bayshore Bikeway Component that are within the City's jurisdiction, the City shall conduct ongoing monitoring of these areas every 5 to 10 years. If, through monitoring, the observed SLR conditions appear to be consistent with the 2100 projections identified in this EIR, a site-specific assessment shall be conducted to identify future SLR projections using the best science available at the time and

identify appropriate adaptation strategies to ensure that these areas are resilient to coastal flooding and inundation from SLR. Such strategies may include a neighborhood-level effort, raising of grades, additional shoreline protection, or removal or movement of assets.

Level of Significance After Mitigation

Impact-LU-1 would be reduced to a less-than-significant level after implementation of **MM-LU-1** because the Route 1 option of the Bayshore Bikeway Component would be designed and constructed to be outside the areas of inundation near the marsh part of that bikeway alignment. **Impact-LU-2** would be reduced to a less-than-significant level after implementation of **MM-LU-2** and **MM-LU-3** because those project components would be designed and constructed to accommodate projected inundation; however, because permanent inundation at Pepper Park is not expected until closer to 2100, coastal protections that effectively mitigate permanent inundation could be implemented later in the century, rather than in the near future. **Impact-LU-3** would be reduced to a less-than-significant level after implementation of **MM-LU-4** and **MM-LU-5** because ongoing monitoring of these project component sites would be conducted to observe SLR conditions and, if necessary, site-specific assessments would be prepared to identify appropriate adaptation strategies to ensure that areas projected to be inundated are resilient.

Section 4.10
Noise and Vibration

4.10.1 Overview

This section describes the existing conditions and applicable laws and regulations governing project-related noise and vibration. The section also discusses the proposed project's potential to increase noise and vibration in the project vicinity during construction and operation. Impacts related to noise and vibration were analyzed by ICF noise specialists and considered significant if the proposed project would (1) generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project, in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies; or (2) generate excessive groundborne vibration or groundborne noise levels. This section focuses on potential noise-related impacts on surrounding people and properties; potential effects on wildlife are addressed in Section 4.3, *Biological Resources*, of this EIR.

Table 4.10-1 summarizes the significant impacts and mitigation measures discussed in Section 4.10.6.4, *Project Impacts and Mitigation Measures*.

Table 4.10-1. Summary of Significant Noise and Vibration Impacts and Mitigation Measures

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-NOI-1: Exceedance of the City's Noise Ordinance During Project Construction (Balanced Plan, Bayshore Bikeway Component, City Program – Development Component, GB Capital Component, Pasha Road Closures Component)	**MM-NOI-1:** Prohibit Exterior Construction Activities Outside of the Permitted Construction Hours (Balanced Plan, Bayshore Bikeway Component, City Program – Development Component, GB Capital Component, Pasha Road Closures Component) **MM-NOI-2:** Avoid or Reduce Construction Noise from Pile Driving (City Program – Development Component, GB Capital Component) **MM-NOI-3:** Avoid or Reduce Construction Noise from Other (Non-Pile-Driving) Construction Activities	Significant and Unavoidable	Noise impacts would be reduced by **MM-NOI-1**, **MM-NOI-2,** and **MM-NOI-3**. However, it may not be possible to fully reduce all construction noise levels to comply with the noise limits specified in the City's Municipal Code (Section 12.10.160). Limitations may include the inability to use alternative pile-driving methods or acoustical shrouds due to engineering, constructability, or safety considerations; the need to operate construction equipment in proximity to noise-sensitive receptors; or the inability to construct efficient temporary noise barriers due to local terrain conditions, or engineering,

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
	(Bayshore Bikeway Component, GB Capital Component, Pasha Road Closures Component)		constructability, or safety considerations. As a result, construction noise impacts would remain significant and unavoidable.
Impact-NOI-2: Exceedance of the City's General Plan Noise Exposure Standards Due to Traffic Noise at Onsite Visitor Accommodations (City Program – Development Component)	**MM-NOI-4:** Design and Construct the Proposed Hotel at the City Program – Development Component Site to Achieve an Interior Noise Level of 45 dB CNEL or Less at Noise-Sensitive Occupied Spaces (City Program – Development Component)	Less than Significant	Mitigation measure **MM-NOI-4** would ensure that development at the City Program – Development Component site would be designed and constructed to control exterior-to-interior noise that could affect sensitive occupied spaces. As a result, interior noise levels would be in compliance with the interior noise standards specified in the National City General Plan Noise Element.
Impact-NOI-3: Exceedance of the City's General Plan Noise Exposure Standards Due to Rail Noise at Proposed Onsite Visitor Accommodations (GB Capital Component, Pasha Rail Improvement Component)	**MM-NOI-5:** Reduce Rail Noise Levels at the Proposed GB Capital RV Sites to 65 dB CNEL or Less (Pasha Rail Component, GB Capital Component) **MM-NOI-6:** Design and Construct the Hotels at the GB Capital Component to Achieve an Interior Noise Level of 45 dB CNEL or Less at Noise-Sensitive Occupied Spaces (GB Capital Component)	Less than Significant	Mitigation measure **MM-NOI-5** would require a noise barrier or the dry boat storage (proposed by GB Capital) to be enclosed and made from solid material to reduce the rail noise exposure at the proposed GB Capital Component RV sites to 65 dB CNEL or less for compliance with the City's exterior noise compatibility guidelines, as specified in the National City General Plan Noise Element. Mitigation measure **MM-NOI-6** would ensure GB Capital Component hotels would be designed and constructed so as to control exterior-to-interior noise that could affect sensitive occupied spaces. As a result, interior noise levels would be in compliance with the interior noise standards specified in the National City General Plan Noise Element.
Impact-NOI-4: Potential Exceedance of the City's Municipal Code Noise	**MM-NOI-7:** Design and Install All Onsite Mechanical Equipment at	Less than Significant	Mitigation measure **MM-NOI-7** would ensure that development at the City

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Standards at Existing Offsite Sensitive Receptors Due to Onsite Operations (City Program – Development Component)	the City Program – Development Component Site to Comply with the City's Noise Ordinance (City Program – Development Component)		Program – Development Component site would be designed and constructed so that noise from onsite mechanical equipment and other onsite stationary sources would comply with the City's Noise Ordinance.
Impact-NOI-5: Potential Exceedance of the City's Municipal Code Noise Standards at Onsite Sensitive Receptors Due to Onsite Operations (GB Capital Component, Balanced Plan)	**MM-NOI-8:** Design and Operate the Proposed Dry Boat Storage Facility to Comply with the City's Noise Ordinance at the Adjacent Proposed RV Resort (GB Capital Component) **MM-NOI-9:** Regulate Organized Events at Pepper Park, Including Use of the Proposed Amphitheater (Balanced Plan)	Significant and Unavoidable	It is possible that full implementation of **MM-NOI-8** would not be feasible. Various factors could make it infeasible to reduce noise from the dry boat storage facility to fully comply with the City's Noise Ordinance (Municipal Code Chapter 12.06.020) at the adjacent RV sites. Such factors include the type of mechanical equipment required to lift and transport boats, the desired hours of operation (including the sensitive evening and nighttime hours), the proximity to the RV sites, and the difficulty in providing effective shielding given the height of the storage structure and the southerly access to the facility from Marina Way (i.e., all storage access would occur from the side closest to the RV sites). Given the uncertainty associated with implementing adequate noise control, **Impact-NOI-5** would remain potentially significant and unavoidable with respect to noise from the dry boat storage facility. Mitigation measure **MM-NOI-9** would ensure that organized events at Pepper Park would be conducted in compliance with local requirements. This includes obtaining and complying with the terms of an applicable event permit

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
			granted by the District and coordination with the City and adjacent tenants. Therefore, potential noise impacts associated with operation of Pepper Park would be reduced to less than significant with implementation of **MM-NOI-9**. However, **Impact-NOI-5** would remain potentially significant and unavoidable with respect to noise from the dry boat storage facility.
Impact-NOI-6: Exceedance of Caltrans Guideline Criteria for Potential Building Damage During Project Construction (GB Capital Component)	**MM-NOI-10:** Avoid or Reduce Groundborne Vibration from Pile Driving (GB Capital Component)	Less than Significant	Mitigation measure **MM-NOI-10** would ensure that buildings located close to proposed pile driving would be protected from potential damage or repaired if any cosmetic or structural damage was to occur.
Impact-NOI-7: Exceedance of Caltrans Guideline Criteria for Potential Human Annoyance During Project Construction (Bayshore Bikeway Component)	**MM-NOI-11:** Avoid or Reduce Groundborne Vibration from Bikeway Construction (Bayshore Bikeway Component)	Less than Significant	Mitigation measure **MM-NOI-11** would ensure an adequate buffer zone between vibration-generating construction equipment and residential buildings/sensitive homes and the bikeway construction zone during construction or would substitute alternative equipment that generates lower levels of groundborne vibration.

4.10.2 Noise Fundamentals

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is often defined as sound that is objectionable because it is unwanted, disturbing, or annoying.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and the obstructions or atmospheric factors, which affect the propagation path to the receptor, determine the sound level and the characteristics of the noise perceived by the receptor.

The following sections provide an explanation of key concepts and acoustical terms used in the analysis of environmental and community noise.

4.10.2.1 Frequency, Amplitude, and Decibels

Continuous sound can be described by its *frequency* (pitch) and *amplitude* (loudness). A low-frequency sound is perceived as low in pitch; a high-frequency sound is perceived as high-pitched. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

The amplitude of pressure waves generated by a sound source correlates with the loudness of that source. The amplitude of a sound is typically described in terms of *sound pressure level*, also referred to simply as the sound level. The sound pressure level refers to the root-mean-square (rms)[1] pressure of a sound wave and is measured in units called micropascals (µPa). One µPa is approximately one hundred-billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to more than 100,000,000 µPa. Because of this large range of values, sound is rarely expressed in terms of µPa. Instead, a logarithmic scale is used to describe the sound pressure level in terms of decibels, abbreviated dB. The decibel is a logarithmic unit that describes the ratio of the actual sound pressure to a reference pressure (20 µPa is the standard reference pressure level for acoustical measurements in air). Specifically, the decibel describes the ratio of the actual sound pressure to a reference pressure and is calculated as follows:

$$SPL = 20 \times \log_{10}\left(\frac{X}{20\mu Pa}\right)$$

where *X* is the actual sound pressure and 20 µPa is the standard reference pressure level for acoustical measurements in air. The threshold of hearing for young people is about 0 dB, which corresponds to 20 µPa.

Decibel Calculations

Because decibels represent noise levels using a logarithmic scale, sound pressure levels cannot be added, subtracted, or averaged through ordinary arithmetic. On the dB scale, a doubling of sound energy corresponds to a 3 dB increase. In other words, when two identical sources are each producing sound of the same loudness, their combined sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one bulldozer produces a sound pressure level of 80 dB, two bulldozers would not produce a combined sound level of 160 dB. Rather, they would combine to produce 83 dB. The cumulative sound level of any number of sources, such as excavators, can be determined using decibel addition. The same decibel addition is used for A-weighted decibels, described below.

Similarly, the arithmetic mean (average) of a series of noise levels does not accurately represent the overall average noise level. Instead, the values must be averaged using a linear scale before

[1] Root-mean-square (rms) is defined as the square root of the mean (average) value of the squared amplitude of the noise signal.

converting the result back into a logarithmic (dB) noise level. This method is typically referred to as calculating the "energy average" of the noise levels.

4.10.2.2 Perception of Noise and A-Weighting

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the sound pressure level in that range. In general, people are most sensitive to the frequency range of 1,000 to 8,000 Hz and perceive sounds within that range better than sounds of the same amplitude at higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted (i.e., adjusted), depending on human sensitivity to those frequencies. The resulting sound pressure level is expressed in A-weighted decibels, or dBA.

The A-weighting scale approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments regarding the relative loudness or annoyance of a sound, their judgments correlate well with the A-weighted sound levels of those sounds. Table 4.10-2 describes typical A-weighted sound levels for various noise sources.

Table 4.10-2. Typical A-Weighted Sound Levels in the Environment

Common Outdoor Noise Source	Sound Level (dBA)	Common Indoor Noise Source
	— 110 —	Rock band
Jet flying at 1,000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher in next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: California Department of Transportation 2013.
dBA = A-weighted decibels; mph = miles per hour

4.10.2.3 Noise Descriptors

Because sound levels can vary markedly over a short period of time, various descriptors or noise "metrics" have been developed to quantify environmental and community noise. These metrics generally describe either the average character of the noise or the statistical behavior of the variations in the noise level. Some of the most common metrics used to describe environmental noise, including those metrics used in this report, are described below.

Equivalent Sound Level (L_{eq}) is the most common metric used to describe short-term average noise levels. Many noise sources produce levels that fluctuate over time; examples include mechanical equipment that cycles on and off or construction work, which can vary sporadically. The L_{eq} describes the average acoustical energy content of noise for an identified period of time, commonly 1 hour. Therefore, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustical energy over the duration of the exposure. For many noise sources, the L_{eq} will vary, depending on the time of day. A prime example is traffic noise, which rises and falls, depending on the amount of traffic on a given street or freeway.

Maximum Sound Level (L_{max}) and **Minimum Sound Level (L_{min})** refer to the maximum and minimum sound levels, respectively, that occur during the noise measurement period. More specifically, they describe the root-mean-square sound levels that correspond to the loudest and quietest 1-second intervals that occur during the measurement.

Percentile-Exceeded Sound Level (L_{xx}) describes the sound level exceeded for a given percentage of a specified period. For example, the L_{50} is the sound level exceeded 50% of the time (such as 30 minutes per hour), and L_{25} is the sound level exceeded 25% of the time (such as 15 minutes per hour). Many municipalities use L_{xx} metrics in their noise ordinances to define permissible noise limits, allowing different noise levels, depending on the duration of the noise within an hour.

Community Noise Equivalent Level (CNEL) is a measure of the 24-hour average A-weighted noise level that is also time-weighted to "penalize" noise that occurs during the evening and nighttime hours when noise is generally recognized to be more disturbing (because people are trying to rest, relax, and sleep during these times). In addition, 5 dBA is added to the L_{eq} during the evening hours of 7:00 p.m. to 10:00 p.m., 10 dBA is added to the L_{eq} during the nighttime hours of 10:00 p.m. to 7:00 a.m., and the energy average is then taken for the whole 24-hour day.

Day-Night Sound Level (L_{dn}) is very similar to the CNEL described above. L_{dn} is also a time-weighted average of the 24-hour A-weighted noise level. The only difference is that no "penalty" is applied to the evening hours of 7:00 p.m. to 10:00 p.m., 10 dBA is added to the L_{eq} during the nighttime hours of 10:00 p.m. to 7:00 a.m., and the energy average is then taken for the whole 24-hour day.

It is noted that various federal, state, and local agencies have adopted CNEL or L_{dn} as the measure of community noise. Although not identical, CNEL and L_{dn} are normally within 1 dBA of each other when measured in typical community environments, and many noise standards/regulations use the two interchangeably.

4.10.2.4 Sound Propagation

When sound propagates over a distance, it changes in both level and frequency content. The manner in which noise is reduced with distance depends on the factors listed below.

Geometric Spreading. Sound from a single source (i.e., a *point source*) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates (or drops off) at a rate of 6 dBA for each doubling of distance. Highway noise is not a single stationary point source of sound. The movement of vehicles on a highway makes the source of the sound appear to emanate from a line (i.e., a *line source*) rather than from a point. This results in cylindrical spreading rather than the spherical spreading from a point source. The change in sound level (i.e., attenuation) from a line source is 3 dBA per doubling of distance.

Ground Absorption. Usually the noise path between the source and the observer is very close to the ground. Excess noise attenuation from ground absorption occurs because of acoustic energy losses on sound wave reflection. For acoustically absorptive or "soft" sites (i.e., sites with an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dBA per doubling of distance is normally assumed. When added to the geometric spreading, excess ground attenuation results in an overall drop-off rate of 4.5 dBA per doubling of distance for a line source and 7.5 dBA per doubling of distance for a point source.

Atmospheric Effects. Research by the California Department of Transportation (Caltrans) and others has shown that atmospheric conditions can have a major effect on noise levels (Caltrans 2013). Factors include wind, air temperature (including vertical temperature gradients), humidity, and turbulence. Receptors downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas receptors upwind can have lower noise levels. Increased sound levels can also occur over relatively large distances because of temperature inversion conditions (i.e., increasing air temperature with elevation).

Shielding by Natural or Human-Made Features. A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by this shielding depends on the size of the object, proximity to the noise source and receptor, surface weight, solidity, and the frequency content of the noise source. Natural terrain features (such as hills and dense woods) and human-made features (such as buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receptor, with the specific purpose of reducing noise. In addition to the noise that diffracts over the top of a barrier, noise will also diffract around the ends of the barrier, leading to "flanking" noise that can reduce the overall efficacy of the barrier. Assuming it is long enough to minimize the effects of flanking noise, a barrier that breaks the line of sight between a source and a receptor will typically result in at least 5 dB of noise reduction. A taller barrier may provide as much as 20 dB of noise reduction.

4.10.2.5 Human Response to Noise

Noise can have a range of effects on people, including hearing damage, sleep interference, speech interference, performance interference, physiological responses, and annoyance. Each of these is briefly described below.

Hearing Damage. A person exposed to high noise levels can suffer hearing damage, either gradual or traumatic. Gradual hearing loss occurs with repeated exposure to excessive noise levels and is most commonly associated with occupational noise exposures in heavy industry or other very noisy work environments. Traumatic hearing loss is caused by sudden exposure to an extremely high noise level, such as a gunshot or explosion at very close range. The potential for noise-induced

hearing loss is not generally a concern in typical community noise environments. Noise levels in neighborhoods, even in very noisy airport environs, are not loud enough as to cause hearing loss.

Sleep Interference. Exposure to excessive noise levels at night has been shown to cause sleep disturbance, which refers not only to awakening from sleep but also effects on the quality of sleep, such as altering the pattern and stages of sleep. World Health Organization (WHO) guidelines recommend noise limits of 30 dBA L_{eq} (8-hour average) for continuous noise and 45 dBA L_{max} for single sound events inside bedrooms at night to minimize sleep disturbance (WHO 1999).

Speech Interference. Speech interference can be a problem in any situation where clear communication is desired but is often of particular concern in learning environments (such as schools) or situations where poor communication could jeopardize safety. Normal conversational speech inside homes is typically in the range of 50 to 65 dBA (U.S. Environmental Protection Agency 1977); any noise in this range or louder may interfere with speech. As background noise levels rise, the intelligibility of speech decreases and the listener fails to recognize an increasing percentage of the words spoken. A speaker may raise his or her voice in an attempt to compensate for higher background noise levels, but this, in turn, can lead to vocal fatigue for the speaker.

Performance Interference. Excessive noise has been found to have various detrimental effects on human performance, including information processing, concentration, accuracy, reaction times, and academic performance. Intrusive noise from individual events can also cause distraction. These effects are of obvious concern for learning and work environments.

Physiological Responses. Acute noise has been shown to cause measurable physiological responses in humans, including changes in stress hormone levels, pulse rate, and blood pressure. The extent is to which these responses cause harm or are signs of harm is not clearly defined, but it has been postulated that they could contribute to stress-related diseases, such as hypertension, anxiety, and heart disease. However, research indicates that links between environmental noise and permanent health effects are generally weak and inconsistent. Statistically significant health risks have been found for extended exposure to very high noise levels, such as for workers exposed to high levels of industrial noise for 5 to 30 years (WHO 1999).

Annoyance. The subjective effects of annoyance, nuisance, and dissatisfaction are possibly the most difficult to quantify, and no completely satisfactory method exists to measure these effects. This difficulty arises primarily from differences in individual sensitivity and habituation to sound, which can vary widely from person to person. What one person considers tolerable can be quite unbearable to another of equal hearing acuity. An important tool in estimating the likelihood of annoyance due to a new sound is by comparing it to the existing baseline or "ambient" environment to which that person has adapted. In general, the more the level or tonal (frequency) variations of a sound exceed the previously existing ambient sound level or tonal quality, the less acceptable the new sound will be.

In most cases, effects from sounds typically found in the natural environment would be limited to annoyance or interference. Physiological effects and hearing loss would be more commonly associated with manmade noise, such as in an industrial or an occupational setting.

Studies have shown that, under controlled conditions in an acoustics laboratory, a healthy human ear is able to discern changes in sound levels of 1 dBA. In the normal environment, the healthy human ear can detect changes of about 2 dBA; however, it is widely accepted that a doubling of sound energy, which results in a change of 3 dBA in the normal environment, is considered just

noticeable to most people. A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as being twice as loud. Accordingly, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) resulting in a 3 dBA increase in sound would generally be barely detectable.

4.10.2.6 Noise-Sensitive Land Uses

Noise-sensitive land uses are the locations most likely to be adversely affected by excessive noise levels. As defined by the Noise and Nuisance Element of the National City General Plan, these uses within the City's jurisdiction include residences, churches, schools, libraries, parks, open space, hospitals, and convalescent homes.

The District also considers parks and hotels to be noise sensitive during certain hours of operation. Parks are typically only considered noise sensitive during hours of operation (typically 6:00 a.m. to 10:30 p.m.) because they should generally be unoccupied outside of these hours. Hotels and other visitor accommodations are considered to be noise sensitive only during the evening and nighttime hours of 7:00 p.m. to 7:00 a.m. As a result, potential impacts at hotels are considered for traffic noise, which is quantified in terms of the 24-hour CNEL, and nighttime project operations, but not for daytime noise from project construction or operation.

4.10.3 Environmental Vibration Fundamentals

This section describes basic concepts related to groundborne vibration. Groundborne vibration is a small, rapidly fluctuating motion transmitted through the ground. The effects of groundborne vibrations are typically limited to causing nuisance or annoyance to people, but at extreme vibration levels, damage to buildings may also occur.

In contrast to airborne sound, groundborne vibration is not a phenomenon that most people experience every day. The ambient groundborne vibration level in residential areas is usually much lower than the threshold of human perception. Most perceptible indoor vibration is caused by sources within buildings, such as mechanical equipment while in operation, people moving, or doors slamming. Typical outdoor sources of perceptible groundborne vibration are heavy construction activity (such as blasting, pile driving, or earthmoving), steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible, even in locations close to major roads. The strength of groundborne vibration from typical environmental sources diminishes (or attenuates) fairly rapidly over distance.

For the prediction of groundborne vibration, the fundamental model consists of a vibration source, a receptor, and the propagation path between the two. The power of the vibration source and the characteristics and geology of the intervening ground, which affect the propagation path to the receptor, determine the groundborne vibration level and the characteristics of the vibration perceived by the receptor.

The following sections provide an explanation of key concepts and terms used in the analysis of environmental groundborne vibration.

4.10.3.1 Displacement, Velocity, and Acceleration

Vibration sources (blasting, dynamic construction equipment, train, etc.) impart energy to the ground, creating vibration waves that propagate away from the source along the surface and downward into the earth. As vibration waves travel outward from a source, they excite the particles of rock and soil through which they pass and cause them to oscillate. The distance that these particles move is referred to as the displacement, which is typically very small, usually only a few ten-thousandths to a few thousandths of an inch. Velocity describes the instantaneous speed of the motion, and acceleration is the instantaneous rate of change of the speed. Each of these measures can be further described in terms of frequency and amplitude, as discussed below.

Although displacement is generally easier to understand than velocity or acceleration, it is rarely used to describe groundborne vibration because most transducers used to measure vibration directly measure velocity or acceleration, not displacement.

4.10.3.2 Frequency and Amplitude

The frequency of a vibrating object describes how rapidly it is oscillating. The unit of measurement for the frequency of vibration is Hz (the same as used in the measurement of noise), which describes the number of cycles per second.

The amplitude of displacement describes the distance that a particle moves from its resting (or equilibrium) position as it oscillates and can be measured in inches. The amplitude of vibration velocity (the speed of the movement) can be measured in inches per second (in/sec). The amplitude of vibration acceleration (the rate of change of the speed) can be measured in in/sec squared.

4.10.3.3 Vibration Descriptors

As noted above, there are various ways to quantify groundborne vibration, based on its fundamental characteristics. Because vibration can vary markedly over a short period of time, various descriptors have been developed to quantify vibration. The descriptor used in this study is peak particle velocity, as described below.

Peak Particle Velocity (PPV) is defined as the maximum instantaneous positive or negative peak amplitude of the vibration velocity. The unit of measurement for PPV is in/sec. Unlike many quantities used in the study of environmental acoustics, PPV is typically presented using linear values and does not employ a dB scale. Because it is related to the stresses that are experienced by buildings, PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage (both Federal Transit Administration [FTA] and Caltrans guidelines recommend using PPV for this purpose). It is also used in many instances to evaluate the human response to groundborne vibration (Caltrans guidelines recommend using PPV for this purpose).

Vibration Velocity Level (L_V) describes the root-mean-square vibration velocity. Because of the typically small amplitudes of groundborne vibrations, vibration velocity is often expressed in decibels, calculated as follows:

$$L_V = 20 \times \log_{10}\left(\frac{V}{V_{ref}}\right)$$

where *V* is the actual root mean square velocity amplitude and V_{ref} is the reference velocity amplitude. It is important to note that there is no universally accepted value for V_{ref}, but the accepted reference quantity for vibration velocity in the United States is 1 micro-inch per second (1×10^{-6} in/sec). The abbreviation VdB is commonly used for vibration decibels to distinguish from noise level decibels. L_V is often used to evaluate human response to vibration levels (FTA guidelines recommend using L_V for this purpose).

4.10.3.4 Vibration Propagation

Vibration energy spreads out as it travels through the ground, causing the vibration level to diminish with distance away from the source. High-frequency vibrations reduce much more rapidly than low frequencies so that low frequencies tend to dominate the spectrum at large distances from the source. The propagation of groundborne vibration is not as simple to model as airborne noise. This is because noise in the air travels through a relatively uniform medium, while groundborne vibrations travel through the earth, which may contain significant geological differences. Geological factors that influence the propagation of groundborne vibration include the following:

Soil Conditions. The type of soil is known to have a strong influence on the levels of groundborne vibration. Among the most important factors are the stiffness and internal damping of the soil. Hard, dense, and compacted soil; stiff clay soil; and hard rock transmit vibration more efficiently than loose, soft soils; sand; or gravel.

Depth to bedrock. Shallow depth to bedrock has been linked to efficient propagation of groundborne vibration. One possibility is that shallow bedrock acts to concentrate the vibration energy near the surface, reflecting vibration waves back toward the surface that would otherwise continue to propagate farther down into the earth.

Soil strata. Discontinuities in the soil strata (i.e., soil layering) can also cause diffractions or channeling effects that affect the propagation of vibration over long distances.

Frost conditions. Vibration waves typically propagate more efficiently in frozen soils than in unfrozen soils. Propagation also varies, depending on the depth of the frost.

Water conditions. The amount of water in the soil can affect vibration propagation. The depth of the water table in the path of the propagation also appears to have substantial effects on groundborne vibration levels.

Specific conditions at the source and receptor locations can also affect the vibration levels. For instance, how the source is connected to the ground (e.g., direct contact, through rails or a structure) will affect the amount of energy transmitted into the ground. There are also notable differences when the source is underground (such as in a tunnel) versus on the surface. At the receptor, vibration levels can be affected by variables such as the foundation type, building construction, and the acoustical absorption inside the rooms where people are located. When vibration encounters a building, a ground-to-foundation coupling loss will usually reduce the overall vibration level. However, under certain circumstances, the ground-to-foundation coupling may also amplify the vibration level because of the structural resonances of the floors and walls.

4.10.3.5 Effects of Groundborne Vibration

Vibration can result in effects that range from annoyance to structural damage. Annoyance or disturbance of people may occur at vibration levels substantially below those that would pose a risk of damage to buildings. Each of these effects is discussed below.

Potential Building Damage

When groundborne vibration encounters a building, vibrational energy is transmitted to the structure, causing it to vibrate; if the vibration levels are high enough, damage to the building may occur. Depending on the type of building and the vibration levels, this damage could range from cosmetic architectural damage (e.g., cracked plaster, stucco, or tile) to more severe structural damage (e.g., cracking of floor slabs, foundations, columns, beams, or walls). Buildings can typically withstand higher levels of vibration from transient sources than from continuous or frequent intermittent sources. Transient sources are those that create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. Older fragile buildings (which may include important historical buildings) are of particular concern. Modern commercial and industrial buildings can generally withstand much higher vibration levels before potential damage becomes a problem.

Human Disturbance or Annoyance

Groundborne vibration can be annoying to people and can cause serious concern for nearby neighbors of vibration sources, even when vibration is well below levels that could cause physical damage to structures. Groundborne vibration is almost exclusively a concern inside buildings and rarely perceived as a problem outdoors where the motion may be discernible but there is a less adverse reaction without the effects associated with the shaking of a building. The normal frequency range of most groundborne vibration that can be felt generally starts at a low frequency of less than 1 Hz to a high of about 200 Hz.

When groundborne vibration waves encounter a building, vibrational energy is transmitted to the building foundation and then propagates throughout the remainder of the structure, causing building surfaces (walls, floors, and ceilings) to vibrate. This movement may be felt directly by building occupants and may also generate a low-frequency rumbling noise as sound waves are radiated by the vibrating surfaces. At higher frequencies, building vibration can cause other audible effects, such as the rattling of windows, building fixtures, or items on shelves or hanging on walls. These audible effects due to groundborne vibration are referred to as *groundborne noise*. Groundborne vibration levels that result in groundborne noise are often experienced as a combination of perceptible vibration and low-frequency noise. However, sources that have the potential to generate groundborne noise are likely to produce airborne noise impacts that mask the radiated groundborne noise. Any perceptible effect (vibration or groundborne noise) can lead to annoyance. The degree to which a person is annoyed depends on the activity in which they are participating at the time of the disturbance. For example, someone sleeping or reading will be more sensitive than someone who is engaged in any type of physical activity. Reoccurring vibration effects often lead people to believe that the vibration is damaging their home, even though the vibration levels are well below the minimum thresholds for damage potential (Caltrans 2020).

4.10.3.6 Vibration-Sensitive Land Uses

As discussed above, the potential effects of groundborne vibration can be divided into two categories: building damage and potential human annoyance. Because building damage would be considered a permanent negative effect at any building, regardless of land use, any type of building would typically be considered sensitive to this type of impact. Fragile structures, which often include historical buildings, are most susceptible to damage and are of particular concern.

Land uses that would be considered sensitive to human annoyance caused by vibration are generally the same as those that would be sensitive to noise and typically include residences, churches, schools, libraries, hospitals, and convalescent homes. It is noted, however, that vibration effects are typically considered only inside occupied buildings and not at outside areas such as residential yards, parks, or open spaces. Based on their transient residential nature, hotels are considered to be sensitive to human annoyance effects from vibration only during the evening and nighttime hours of 7:00 p.m. to 7:00 a.m. Schools, museums, and other institutional uses are considered to be sensitive to human annoyance effects from vibration only during their standard hours of operation.

4.10.4 Existing Conditions

The primary existing noise sources in the project area are traffic on I-5 and local streets, and industrial activities. Secondary and intermittent noise sources include railroad activities (e.g., train movements, crossing bells and horns), natural background noise (e.g., bird song, rustling leaves), aircraft overflights, and general neighborhood noise (e.g., children playing).

4.10.4.1 Existing Sensitive Receptors

The closest noise-sensitive land uses to the project site are described below and illustrated in Figure 4.10-1. These land uses would also be sensitive to human annoyance caused by groundborne vibration affecting occupied buildings, as well as to the potential for building damage from groundborne vibration.

- Single-family residences east of I-5, near the intersection of Civic Center Drive and Wilson Avenue, approximately 685 feet east of Routes 1 and 3 of the Bayshore Bikeway Component (receptor R1 on Figure 4.10-1).
- Single-family residences along Cleveland Avenue, approximately 390 feet north of the City Program – Development Component and adjacent to Route 2 of the Bayshore Bikeway Component (receptor R2 on Figure 4.10-1).
- The National City Depot Museum northwest of Bay Marina Drive and Marina Way, at the western edge of the City Program Component and adjacent to Route 1 of the Bayshore Bikeway Component (receptor R4 on Figure 4.10-1).
- The National City Adult School, east of I-5, at Wilson Avenue and Miles of Cars Way, approximately 450 feet east of the City Program – Development Component and 400 feet east of Route 3 of the Bayshore Bikeway Component (receptor R6 on Figure 4.10-1).
- The Best Western Plus Marina Gateway Hotel southeast of Bay Marina Drive and Marina Way, across the street from the City Program – Development Component and immediately adjacent to Routes 1, 2, and 3 of the Bayshore Bikeway Component (receptor R7 on Figure 4.10-1).

- Pepper Park, at the south terminus of Tidelands Avenue (receptor R17 on Figure 4.10-1), is within the project site and is proposed to be expanded and potentially reconfigured as part of the project.

The following are the nearest structures that are not considered noise-sensitive, but would nonetheless be sensitive to the potential for building damage from groundborne vibration (as such, they are labelled as "Vibration Sensitive Only" on Figure 4.10-1).

- The commercial office building northwest of West 23rd Street and Cleveland Avenue, across the street from the City Program – Development Component and adjacent to Routes 1 and 2 of the Bayshore Bikeway Component (receptor R3 on Figure 4.10-1).
- Goodies Bar and Grill southwest of Bay Marina Drive and I-5, across the street from the City Program – Development Component and immediately adjacent to Routes 2 and 3 of the Bayshore Bikeway Component (receptor R8 on Figure 4.10-1).
- Waterfront Grill at Pier 32 Marina within the GB Capital Component (receptor R12 on Figure 4.10-1).

4.10.4.2 Noise Monitoring

In order to quantify the existing ambient noise conditions, noise monitoring was conducted at seven locations in the project vicinity between August 6 and 9, 2019. Long-term (LT) noise monitoring was conducted at four locations, designated LT1, LT2, LT3, and LT4, and short-term (ST) noise monitoring was conducted at three locations, designated ST1, ST2, and ST3. All measurement locations are indicated in Figure 4.10-2. These locations were selected to document the existing noise environment in the vicinity of the project site. The sound-level meters used for both the long- and short-term noise monitoring were field calibrated, using a Larson Davis CAL200 acoustical calibrator, prior to each measurement to ensure accuracy; the calibration was also rechecked at the conclusion of each measurement. Field noise survey sheets and measurement location photos are provided in Appendix J.

Long-Term Noise Measurements

Long-term ambient noise measurements were conducted between August 6 and 9, 2019, at four locations near the project site using Type 2 sound-level meters.[2] Long-term measurement sites were selected to capture daily noise level patterns and statistics continuously over 1-hour intervals. Approximately 3 days of continuous data were recorded at each location. Table 4.10-3 summarizes the results of the long-term noise measurements in terms of the range of daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) average (L_{eq}) and maximum noise levels (L_{max}).

Short-Term Noise Measurements

Short-term measurement locations were selected to supplement long-term measurements at surrounding land uses. Short-term noise measurements were taken at three locations on Tuesday, August 6, and Friday, August 9, 2019. Measurements ST1, ST2, and ST3 were obtained using a Larson Davis Model 831 Type 1 sound-level meter. Each measurement lasted approximately

[2] Models Piccolo SLM-P3 and Piccolo II SLM manufactured by Soft dB and Model NL-21 manufactured by Rion. Type 2 sound-level meters are considered general-purpose grade for field use.

20 minutes and was conducted with the meter mounted on a tripod at a height of 5 feet above the ground, with a wind screen installed over the measurement microphone to reduce the effects of wind-related interference. Noise metrics—including L_{eq}, L_{min}, L_{max}, $L_{1.67}$, $L_{8.33}$, L_{25}, L_{50}, L_{90}, and L_{99} noise descriptors—were recorded subsequent to the conclusion of each measurement. Data from the measurements are shown in Table 4.10-3.



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Figure 4.10-1
Analyzed Noise and Vibration Sensitive Receptor Locations
National City Bayfront Projects & Plan Amendments EIR



Source: ICF (2019); Imagery-BING (2018.)

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Figure 4.10-2
Ambient Noise Measurement Locations
National City Bayfront Projects & Plan Amendments EIR

Table 4.10-3. Summary of Ambient Noise Measurement Results

Site#	Location	Date	Range of CNEL (dB)	Time of Day	Range of Hourly L_{eq} Values (average), dBA	Range of L_{max} Values, dBA
LT1	Single-family residences on Cleveland Avenue	8/6/19–8/9/19	62.5–63.3	Daytime (7:00 a.m. to 10:00 p.m.)	52.3–60.6 (57.4)	66.1–84.5
				Nighttime (10:00 p.m. to 7:00 a.m.)	47.7–61.6 (56.0)	64.1–85.3
LT2	Best Western Plus Marina Gateway Hotel	8/6/19–8/9/19	63.3–64.7	Daytime (7:00 a.m. to 10:00 p.m.)	55.2–67.7 (60.5)	68.3–93.6
				Nighttime (10:00 p.m. to 7:00 a.m.)	50.1–62.3 (56.6)	64.2–87.8
LT3	Pepper Park	8/6/19–8/9/19	63.4–66.4	Daytime (7:00 a.m. to 10:00 p.m.)	54.4–66.6 (61.9)	65.1–91.7
				Nighttime (10:00 p.m. to 7:00 a.m.)	44.7–64.3 (57.1)	56.1–88.1
LT4	Habitat area south of Sweetwater Channel	8/6/19–8/9/19	65.4–67.4	Daytime (7:00 a.m. to 10:00 p.m.)	55.1–65.1 (60.9)	64.8–86.2
				Nighttime (10:00 p.m. to 7:00 a.m.)	53.6–63.7 (59.8)	61.6–87.1
ST1	Single-family residences on Wilson Avenue	8/6/2019	N/A	1:03 p.m.–1:23 p.m.	66.4	73.5
ST2	National City Adult School	8/6/2019	N/A	12:24 p.m.–12:44 p.m.	65.2	73.6
ST3	Habitat area north of Sweetwater Channel (Paradise Marsh)	8/9/2019	N/A	9:29 a.m.–9:59 a.m.	62.6	68.3

Source: ICF field noise measurements (see Appendix J).
Note: Noise measurements LT4 and ST3 were conducted at or adjacent to habitat areas for potentially sensitive species. Ambient noise levels at these locations are reported here for information purposes only. Potential project effects on wildlife are addressed in Section 4.3, *Biological Resources*, of this EIR.
CNEL = Community Noise Equivalent Level; dB = decibel; L_{eq} = equivalent sound level; dBA = A-weighted decibel; L_{max} = maximum sound level.

4.10.5 Applicable Laws and Regulations

4.10.5.1 State

California requires each local government entity to perform noise studies and implement a noise element as part of its general plan. The state provides guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. These guidelines are presented in Section 4.10.5.3, *Local,* below.

Title 24, California Code of Regulations

Title 24, Part 2, Section 1206.3 of the California Code of Regulations, "Allowable interior noise levels," establishes minimum noise insulation standards to protect people in new hotels, motels, lodging houses, apartments, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing, and other types of dwelling containing sleeping accommodations. Under this regulation, interior noise levels attributable to exterior noise sources cannot exceed 45 dB CNEL or L_{dn} in any habitable room (the noise metric shall be either L_{dn} or CNEL, consistent with the noise element of the local general plan). Compliance with the code is achieved through various noise attenuation features including building insulation, sound-rated doors and windows, etc.

California Department of Transportation

As described below, the City's Municipal Code provides a basic criterion for limiting groundborne vibration. Although this is sensible for the evaluation of operational vibration sources, it does not fully address the range of potential vibration impacts that might occur as a result of construction activities. However, Caltrans provides suggested criteria to address potential building damage as well as human annoyance as a result of construction-related groundborne vibration. Therefore, although the proposed project would not be subject to Caltrans oversight, guidance published by the agency nonetheless provides criteria that could be useful in establishing vibration thresholds for the project. Guideline criteria from Caltrans' widely referenced *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020) are provided in Tables 4.10-4 and 4.10-5.

Table 4.10-4. Caltrans Guideline Vibration Damage Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Caltrans 2020.
Note: Transient sources create a single isolated vibration event, such as blasting or the use of drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
PPV = peak particle velocity; in/sec = inches per second

Table 4.10-5. Caltrans Guideline Vibration Annoyance Criteria

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: Caltrans 2020.
Note: Transient sources create a single isolated vibration event, such as blasting or the use of drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
PPV = peak particle velocity; in/sec = inches per second

4.10.5.2 Local

Noise and Nuisance Element of the General Plan

Because the District has not adopted its own noise standards or noise ordinance, it is the District's practice to use the noise standards of the municipality in which a project is located. Accordingly, the City's noise standards are used for this analysis.

The Noise and Nuisance Element of the National City General Plan includes land use/noise compatibility guidelines for various land uses, including the noise-sensitive receptors considered in the impact analysis for the project. The guidelines are presented in a matrix, as shown in Figure 4.10-3. The matrix indicates the following:

- Single-family homes, mobile homes, and senior housing are compatible with exterior noise exposures of up to 60 dB CNEL and conditionally compatible with exterior noise exposures of up to 70 dB CNEL.
- Multi-family and mixed-use developments are compatible up to 60 dB CNEL and conditionally compatible up to 70 dB CNEL.

- Visitor accommodations (hotels, motels, etc.) are compatible up to 65 dB CNEL and conditionally compatible up to 75 dB CNEL.
- Community and neighborhood parks are compatible up to 70 dB CNEL and conditionally compatible up to 75 dB CNEL.

These guidelines provide thresholds of impact for transportation noise sources such as traffic and railroads, which are not generally regulated by the City's Municipal Code (see below). Where excessive exterior noise levels occur at locations with noise-sensitive interior uses, sufficient noise insulation should be incorporated into the building design to reduce interior noise levels to 45 dB CNEL or less.

Figure 4.10-3. National City General Plan Land Use – Noise Compatibility Guidelines

Land Use Category	Exterior Noise Exposure (dBA CNEL)				
	<60	60-65	65-70	70-75	75+
Residential Land Uses					
Single-family, Mobile Homes, Senior Housing		45*	45*	45*	
Multi-family			45*	45*	
Minor Mixed-Use, Major Mixed-Use			45*	45*	45*
Commercial					
Automotive, Service Commercial					
Office					
Shopping Center					
Visitor Accommodations			45*	45*	45*
Industrial					
Institutional					
Infrastructure (water treatment facilities, electrical substations)					
Worship facilities, educational facilities, community centers, libraries, museums and cultural centers		45*	45*	45*	
Open Space, Parks and Recreation					
Community and Neighborhood Parks					
Golf Courses, Athletic Fields					

* Interior noise level

	Compatible	**Indoor Uses**	Standard construction methods should attenuate exterior noise to an acceptable indoor noise level.
		Outdoor Uses	Activities associated with the land use may be carried out.
	Conditionally Compatible	**Indoor Uses**	Building structure must attenuate exterior noise to the indoor noise level. Conventional construction, but with closed windows and fresh air supply systems will normally suffice.
		Outdoor Uses	Best practices for reducing noise interference should be incorporated to make outdoor activities acceptable.
	Normally Incompatible	**Indoor Uses**	If new construction or development does proceed, a detailed acoustical analysis is needed to identify the noise reduction requirements and needed noise insulation features shall be included in the design.
		Outdoor Uses	Feasible noise mitigation techniques shall be analyzed and incorporated to make the outdoor activities acceptable.
	Incompatible	**Indoor Uses**	New construction should not be undertaken.
		Outdoor Uses	Severe noise interference makes outdoor activities unacceptable.

Source: Table NN-5, National City General Plan, Noise and Nuisance Element.

Municipal Code

As mentioned above, because the District has not adopted its own noise standards, it is the District's practice to use the noise standards of the municipality in which a project is located. Accordingly, the City's noise standards are used for this analysis.

Title 12, Noise Control, of the City's Municipal Code is intended to address noise from non-transportation sources such as construction activity or activities on private property (i.e., operational noise sources).

Construction Noise

Section 12.10.160, *Construction/Demolition*, provides the City's construction noise limits. The noise standards for construction activities vary, depending on when the construction occurs. Any construction that occurs before 7:00 a.m. or after 7:00 p.m. on a weekday, or at any time on weekends or holidays, must comply with the residential and commercial standards summarized in Table 4.10-6. As a standard condition of approval, the project would be required to conduct all construction activities between 7:00 a.m. and 7:00 p.m. Table 4.10-6 summarizes the construction noise standards that apply at all other times (i.e., between 7:00 a.m. and 7:00 p.m. on weekdays).

Table 4.10-6. Municipal Code Standards for Construction Noise

	Allowable Maximum Noise Level, L_{max}, dBA	
Type (Duration) of Construction Activity	Type I Areas Residential	Type II Areas Semi-Residential/ Commercial
Mobile Equipment	75	85
Nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment		
Stationary Equipment		
Repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment	60	70

L_{max} = maximum sound level; dBA = A-weighted decibels

Because proposed project construction would last more than 10 days and occur in mixed or non-residential neighborhoods, the appropriate construction category would be "Stationary Equipment," and the relevant land use designation would be "Semi-residential/Commercial." Therefore, the resulting noise limit would be 70 dBA L_{max}. This standard would apply at or within the boundaries of any affected noise-sensitive properties.

Onsite Operational Noise

Section 12.06.020, *Maximum Permissible Sound Levels by Receiving Land Use*, provides the City's noise limits that would apply to onsite operational noise sources. The standard differentiates between "environmental noise" and "nuisance noise." In general, environmental noise sources are those that are "normally found in connection with a permitted activity." As such, project noise would be treated as environmental noise. Table 4.10-7 summarizes the standards. The residential noise standards are used as a threshold for the residences in the study area. Consistent with the City's land use category

designation for "visitor accommodations," the commercial noise standards are used as the threshold for the hotel at night. The commercial standards are also used as the threshold for the park.

Table 4.10-7. Municipal Code Standards for Exterior Environmental Noise

Receiving Land Use Category	Allowable Noise Level, L_{eq}(h) dBA	
	Nighttime (10 p.m. to 7 a.m.)	Daytime (7 a.m. to 10 p.m.)
All residential (less than nine dwelling units)	45	55
Multi-unit residential (consisting of nine dwelling units or more and public space)	50	60
Commercial	60	65
Light industry (industry east of I-5)	70	70
Heavy industry (industry west of I-5)	80	80

Notes:
- If the alleged offensive noise contains a steady, audible sound, such as a whine, screech, or hum; a repetitive, impulsive noise, such as hammering or riveting; or music or speech, the standard limits set forth above shall be reduced by 5 dBA.
- If the measured ambient level exceeds that permissible above, the allowable noise level standard shall be the ambient noise level. The ambient level shall be measured when the alleged noise violation source is not operating.
L_{eq}(h) = hourly equivalent sound level; dBA = A-weighted decibels

Section 12.12.040, *Outdoor Activity Exemptions*, and Section 12.12.060, *Exemptions from Exterior Noise Standards*, of the municipal code provide exemptions from the noise standards that could apply to occasional outdoor activity or events for which a temporary use permit has been issued that includes noise limit exceptions or allowances.

Vibration

The City's Municipal Code also provides a regulatory threshold for groundborne vibration of 0.01 in/sec (over a range of 1 to 100 Hz), which is considered to be the threshold of perception. This is considered to be the applicable threshold for vibration generated by onsite operational sources.

4.10.6 Project Impact Analysis

4.10.6.1 Future Sensitive Receptors

In addition to the existing noise- and vibration-sensitive receptors in the project vicinity (described in Section 4.10.4.1), the project would introduce a number of new sensitive land uses. Proposed noise-sensitive land uses are described below and illustrated in Figure 4.10-1. These land uses would also be sensitive to human annoyance caused by groundborne vibration affecting occupied buildings, as well as to the potential for building damage from groundborne vibration.

- The proposed hotel at the City Program – Development Component (receptor R5 on Figure 4.10-1).
- The proposed RV resort at Phase 1 and Phase 2 of the GB Capital Component (receptors R9 and R15 on Figure 4.10-1). RV spots associated with receptor R15 would be removed during Phase 2 development.

- Four proposed hotels at Phase 2 of the GB Capital Component (receptors R10, R11, R13, and R14 on Figure 4.10-1).
- The proposed modular cabins at GB Capital Phase 1 (receptor R16 on Figure 4.10-1).
- The expanded Pepper Park (receptor R17 on Figure 4.10-1).

The Bayshore Bikeway is not considered sensitive to noise or vibration because it is a transient use (i.e., people using the bikeway would generally be moving and not staying in one place for an extended period) that does not include any buildings.

4.10.6.2 Methodology

Source-to-Receptor Distances and Ground Conditions for Stationary Sources

As described previously, two of the most important variables affecting the noise level experienced at a noise-sensitive receptor are (1) the distance between the noise source and the receptor, and (2) the ground conditions between the two. The methodology for defining these two variables was consistent throughout the analysis of all stationary (i.e., non-transportation) noise sources, including both construction and operational sources, and is summarized below.

The source-to-receptor distances used in the analysis of maximum construction noise levels (L_{max}) represent the closest distance between each sensitive receptor and the relevant construction area(s). The source-to-receptor distances used in the analysis of hourly average operational noise levels ($L_{eq}[h]$) represent the acoustical average distance between each sensitive receptor and the relevant noise source area(s). The acoustical average distance is used to represent noise sources that are mobile or distributed over an area (such as a parking lot); it is calculated by multiplying the shortest distance between the receptor and the noise source area by the farthest distance and then taking the square root of the product. All distances were estimated using conceptual project plans and aerial photography (Google Earth).

It was assumed that noise propagating over clear, acoustically hard ground would attenuate at a rate of 6 dB per doubling of distance because of geometric spreading. Acoustically hard ground includes concrete, pavement, water, and packed dirt. For all other conditions, soft ground was assumed, with an excess attenuation of 1.5 dB per doubling of distance. Soft ground conditions were assumed for unpaved areas with grass, trees, and other plants or sound transmission paths with extensive line-of-sight interference due to shielding from structures or topographical variation.

Construction Noise and Vibration

Potential construction noise and vibration impacts were analyzed for each project component, with some components further divided to differentiate between different phases or options that might result in different impacts. Specifically, the following components and options were analyzed: (1) transportation improvements associated with the Balanced Plan, (2) the Pepper Park expansion (and potential reconfiguration) associated with the Balanced Plan, (3) GB Capital Component – Phase 1 Landside Improvements, (4) GB Capital Component – Phase 1 Waterside Improvements, (5) GB Capital Component – Phase 2, (6) Pasha Rail Improvement Component, (7) Pasha Road Closures Component, (8) Bayshore Bikeway Component Route 1, (9) Bayshore Bikeway Component Route 2, (10) Bayshore Bikeway Component Route 3, and (11) City Program – Development Component. The

sensitive receptors used in the analyses are shown in Figure 4.10-1 and described in Sections 4.10.4.1 and 4.10.6.1.

Noise

Construction-related traffic noise was analyzed by comparing estimated daily construction traffic (daily truck trips and construction workers' vehicle trips) with the existing traffic volumes on the affected roadways. Construction traffic volumes were estimated from the project construction schedule as part of the *Air Quality and Health Risk* and *Greenhouse Gas Emissions and Climate Change* analyses (Section 4.2, Section 4.6, and Appendix K of this EIR).

Construction-related noise was analyzed using data from the Federal Highway Administration's (FHWA's) Roadway Construction Noise Model (RCNM) (FHWA 2008) and the project construction equipment list estimated based on a combination of information provided by the project proponents, information gathered from similar previous District projects, and air quality modeling defaults developed as part of the *Air Quality and Health Risk* and *Greenhouse Gas Emissions and Climate Change* analyses (Section 4.2, Section 4.6, and Appendix F of this EIR). Per the City's Municipal Code standards, construction noise is assessed based on the L_{max}, which is a measure of the short-term (1-second) maximum noise level. The L_{max} at any given receptor is calculated based on the single loudest piece of construction equipment when it is working at its minimum distance from that receptor. Table 4.10-8 provides the reference noise levels of construction equipment expected to be used by the proposed project. The noise levels indicated are provided for a reference distance of 50 feet. As shown in the table, the greatest L_{max} (approximately 101 dBA) would be generated by pile driving. The next loudest category of equipment is high impact demolition equipment, with L_{max} values of approximately 89 to 90 dBA; these are items typically used for demolishing concrete or other solid structures. The remainder of the equipment, which is categorized as general mechanized construction equipment, has L_{max} values of approximately 74 to 85 dBA. Noise levels from construction of each project component were calculated at each receptor for each construction equipment category, with the exception of pile driving. Piles would be used to support the foundations for all major proposed buildings (similar to other bayside multi-story structures) as well as waterside construction. As such, pile-driving noise levels were only calculated for project components with substantial buildings or waterside improvements. Specifically, pile driving would occur at the following project components: GB Capital Component – Phase 1 Waterside Improvements, GB Capital Component – Phase 2, and City Program – Development Component.

Table 4.10-8. Construction Equipment Reference Noise Levels

Equipment Category/Item	Maximum Noise Level (L_{max}) at 50 feet, dBA[1]
Pile Driving	
Pile driver (impact)	101.3
High Impact Demolition Equipment	
Mounted impact hammer (hoe ram or hydraulic breaker)	90.3
Saw, concrete	89.6
Jackhammer	88.9
General Mechanized Construction Equipment	
Grader	85

Equipment Category/Item	Maximum Noise Level (L_{max}) at 50 feet, dBA[1]
Drill rig, auger	84.4
Scraper	83.6
Push boat	82
Skiffs	82
Tugs	82
AC cold planer	81.7
Dozer	81.7
Mobile concrete pump	81.4
Pump, concrete (or concrete pump truck)	81.4
Dewater pumps	80.9
Jet pump	80.9
Excavator	80.7
Crane	80.6
Generator	80.6
Roller	80
Drill rig, truck	79.1
Loader (front-end loader)	79.1
Mixer, concrete (or concrete mixer truck)	78.8
Compressor, air	77.7
All-terrain forklifts	77.6
Backhoe	77.6
Forklift	77.6
Skid steer	77.6
Paver	77.2
Off-highway truck	76.5
Truck, water	76.5
Man lift	74.7
Welder/torch	74

[1] Obtained or estimated from FHWA 2008 (RCNM) and Port of Long Beach 2009.
L_{max} = maximum sound level; dBA = A-weighted sound level

Vibration

Construction-related vibration was analyzed using data and modeling methodologies provided by Caltrans' *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020). This guidance manual provides typical vibration source levels for various types of construction equipment as well as methods for estimating the propagation of groundborne vibration over distance. Because the assessment of potential vibration impacts is based on peak levels rather than long-term average levels, the source-to-receptor distances used in the analyses were the closest distances between the relevant construction activity and each receptor. All building types were assessed for potential building damage that could occur because of groundborne vibration from construction of the proposed project. These receptors include structures built for commercial use (such as an office building on Cleveland Avenue and Goodies Bar and Grill on Bay Marina Drive). The analysis of potential annoyance impacts was conducted at the closest residential, school, hotel/visitor

accommodations, and museum uses. Table 4.10-9 provides the reference PPV of the worst-case construction equipment expected to be used by the proposed project; the levels are provided for a reference distance of 25 feet.

Table 4.10-9. Construction Equipment Reference Vibration Levels

Equipment Item	Reference PPV at 25 feet, in/sec[1]
Pile driver	0.650
Hydraulic Breaker	0.240
Vibratory roller	0.210
Large bulldozer[2]	0.089
Jackhammer	0.035

[1] Obtained from Caltrans 2020.
[2] Considered representative of other heavy earthmoving equipment such as excavators, graders, backhoes, etc.
PPV = peak particle velocity; in/sec = inches per second

The following equations from the guidance manual were used to estimate the change in PPV levels over distance. For pile driving, the equation is:

$$PPV_{rec} = PPV_{ref} \times (25/D)^{n} \times (E_{equip}/E_{ref})^{0.5}$$

where PPV_{rec} is the PPV at a receptor; PPV_{ref} is the reference PPV at 25 feet from the pile driver (0.65 in/sec); D is the distance from the pile driver to the receptor, in feet; n is a value related to the vibration attenuation rate through ground (the default recommended value for n is 1.1); E_{ref} is 36,000 foot-pounds (rated energy of reference pile driver); and E_{equip} is the rated energy of the actual impact pile driver in foot-pounds. (For the purposes of the analysis, it is assumed that the pile driver would be very similar to the reference pile driver, and therefore, there would be no adjustment for E_{equip}.) For other equipment, including heavy earthmoving equipment (such as excavators, graders, and backhoes) and vibratory rollers, the equation is:

$$PPV_{rec} = PPV_{ref} \times (25/D)^{n}$$

where PPV_{rec} is the PPV at a receptor; PPV_{ref} is the reference PPV at 25 feet from the equipment; D is the distance from the equipment to the receptor, in feet; and n is a value related to the vibration attenuation rate through ground (the default recommended value for n is 1.1).

Operational Noise

Traffic

Analysis of traffic noise in the study area was based on data from the Transportation Impact Analysis (TIA) for the proposed project (Appendix K). The analysis was conducted by using a proprietary traffic noise model, with calculations based on data from the FHWA Traffic Noise Model, Version 2.5, Look-Up Tables (FHWA 2004). The inputs used in the traffic noise modeling included the average daily traffic (ADT) data provided by the TIA; assumed traffic mix and daily distribution data (i.e., the percentage of automobiles versus medium trucks and heavy trucks during each hour of the day); and traffic speeds, based on the posted speed limits. The noise modeling is provided in Appendix J. The analysis considers the 11 project scenarios listed below.

Development Projects Scenario. This scenario analyzes traffic-related impacts associated with development/implementation of the Bayshore Bikeway Component, the Pasha Road Closures Component, the GB Capital Component, and the City Program – Development Component.

District Public Improvement Projects Scenario. This scenario analyzes traffic-related impacts associated with the expansion of Pepper Park as well as the Marina Way roadway realignment.

District Public Improvement Projects with Granger Hall Scenario. This scenario analyzes traffic-related impacts associated with the expansion of Pepper Park, the realignment of Marina Way roadway and the relocation of Granger Hall to Pepper Park.

Total Bayfront Plan Scenario. This scenario analyzes traffic-related impacts associated with implementation of both the proposed development projects as well as the District's public improvement projects.

Total Bayfront Plan with Granger Hall Scenario. This scenario analyzes traffic-related impacts associated with implementation of both the proposed development projects as well as the District's public improvement projects along with the relocation of Granger Hall to Pepper Park.

Closure of Bay Marina Drive Scenario. This scenario analyzes traffic-related impacts associated with the closure of Bay Marina Drive [to through traffic], west of Marina Way.

Partial Closure of Bay Marina Drive Scenario. This scenario analyzes traffic-related impacts associated with Bay Marina Drive, west of Marina Way, being narrowed west of Marina Way to one lane in each direction.

Total Bayfront Plan with Closure of Bay Marina Drive Scenario. This scenario analyzes traffic-related impacts associated with implementation of the proposed development projects and the District's public improvement projects as well as closure of Bay Marina Drive to through traffic west of Marina Way.

Total Bayfront Plan with Granger Hall and Closure of Bay Marina Drive Scenario. This scenario analyzes traffic-related impacts associated with implementation of the proposed development projects, the District's public improvement projects, and the relocation of Granger Hall as well as closure of Bay Marina Drive to through traffic west of Marina Way.

Total Bayfront Plan with Partial Closure of Bay Marina Drive Scenario. This scenario analyzes traffic-related impacts associated with implementation of the proposed development projects, the District's public improvement projects, and the narrowing of Bay Marina Drive to west of Marina Way to one lane in each direction.

Total Bayfront Plan with Granger Hall and Partial Closure of Bay Marina Drive Scenario. This scenario analyzes traffic-related impacts associated with implementation of the proposed development projects, the District's public improvement projects, the relocation of Granger Hall, and the narrowing of Bay Marina Drive west of Marina Way to one lane in each direction.

To quantify the direct and cumulative effects of the project, traffic noise was analyzed both under existing conditions and future buildout conditions. (The results of the cumulative analysis are discussed in Chapter 5 of this EIR.) Potential noise impacts at existing offsite noise-sensitive receptors were assessed by estimating the traffic noise levels that would occur if the proposed project, including any one of the above scenarios, were immediately and completely implemented

and comparing the noise levels to existing conditions. As such, the analysis of direct traffic noise impacts included the following cases:

Existing (existing traffic volumes on the existing roadway network)

Existing + Development Projects

Existing + District Public Improvement Projects

Existing + District Public Works with Granger Hall

Existing + Total Bayfront Plan

Existing + Total Bayfront with Granger Hall

Existing + Closure of Bay Marina Drive

Existing + Partial Closure of Bay Marina Drive

Existing + Total Bayfront Plan with Closure of Bay Marina Drive

Existing + Total Bayfront with Granger Hall and Closure of Bay Marina Drive

Existing + Total Bayfront Plan with Partial Closure of Bay Marina Drive

Existing +Total Bayfront with Granger Hall and Partial Closure of Bay Marina Drive

The proposed onsite noise-sensitive receptors are not currently exposed to traffic noise because they do not exist; therefore, the question of noise increases at these receptors is not relevant. Instead, the new uses were analyzed with respect to worst-case traffic noise levels that are reasonably foreseeable. To determine the worst-case noise levels, additional future scenarios were considered. These included both near-term (2030) and future (buildout) conditions. The highest traffic noise levels (existing, near term, or future) at each receptor were then used in the impact assessment. The near-term and future scenarios that were analyzed, based on available data in the TIA, consisted of the following:

Near Term + Total Bayfront Plan

Near-Term + Total Bayfront with Granger Hall

Near Term + Total Bayfront Plan with Closure of Bay Marina Drive

Near-Term + Plus Total Bayfront with Granger Hall and Closure of Bay Marina Drive

Near Term + Total Bayfront Plan with Partial Closure of Bay Marina Drive

Near-Term + Total Bayfront with Granger Hall and Partial of Bay Marina Drive

Future Year + Total Bayfront Plan

Future Year + Total Bayfront with Granger Hall

Future Year + Total Bayfront Plan with Closure of Bay Marina Drive

Future Year + Total Bayfront with Granger Hall and Closure of Bay Marina Drive

Future Year + Total Bayfront Plan with Partial Closure of Bay Marina Drive

Future Year + Total Bayfront with Granger Hall and Partial of Bay Marina Drive

Rail Operations

An analysis of noise associated with trains accessing National City Marine Terminal (NCMT) was conducted as part of the NCMT Tank Farm Paving and Street Closures Project and Port Master Plan Amendment EIR (District 2016). That analysis considered the Best Western Hotel to be the closest offsite sensitive receptor and determined that impacts would be less than significant at that location. As a result, no further analysis of offsite rail noise levels was conducted as part of this EIR analysis. However, the addition of the proposed connector track and storage track as part of the Pasha Rail Improvement Component would shift railroad operations closer to the development proposed as part of the GB Capital Component. Therefore, the effect of the new rail component on the proposed project was analyzed. The railroad analysis was conducted using the FTA Noise Impact Assessment Spreadsheet (FTA 2019), a spreadsheet noise model based on the general noise assessment methodologies of the FTA's Transit Noise and Vibration Impact Assessment (FTA 2018). The analysis relied on operational information provided in the project description (see Chapter 3) and the projected operational train data developed for the NCMT Tank Farm Paving and Street Closures Project and Port Master Plan Amendment EIR (District 2016). The data indicated one nighttime train per day, which was counted as two trips (arrival and departure), with a length of up to 8,000 feet, including four locomotives and 74 railcars. Train speeds would be restricted to a maximum of 10 mph in the vicinity of the NCMT (this speed restriction is currently in place for existing trains). Additional noise due to railcar movements and loading, including use of the proposed storage track, was included by adding a "rail yard" source to the model calculations. It was assumed that the train would sound its horn during arrival and departure as a safety warning to employees who may be working on or near the connector track, as required by the General Code of Operating Rules (General Code of Operating Rules Committee 2015). To analyze overall rail noise at the project site, rail noise from existing operations was also considered, based on the noise contours developed in 2012 (SD Freight Rail Consulting 2012).

Onsite Operations

Onsite Project Components

Various project components would introduce a mix of new or expanded noise sources. However, many features would not generate substantial noise levels directly, such as habitat buffers or public access improvements. The following lists identify the onsite project elements that are anticipated to be the primary noise generators and the noise sources that were analyzed for each. The lists are organized by project component. Subsequent sections describe the methodology used to analyze each noise source type.

Balanced Plan

- Pepper Park, including National City Aquatic Center: playground/splashpad, amphitheater/community stage, parking lot.

GB Capital Component

Phase 1

- RV Resort: RV air-conditioning equipment, swimming pool activity.
- Dry Boat Storage: Boat storage equipment for stacking and retrieving vessels.

Phase 2

- "Hotel #1," 11-story, 282-room Hotel: Mechanical equipment, parking lot, swimming pool.
- "Hotel #2," four-story, 81-room Hotel: Mechanical equipment, parking lot.
- "Hotel #3," three-story, 40-room Hotel: Mechanical equipment, parking lot.
- "Hotel #4," four-story, 60-room Hotel: Mechanical equipment, parking lot.

Pasha Rail Improvement Component

The primary noise source for this component is rail noise, which is addressed under *Rail Operations*, above.

Pasha Road Closures Component

The primary noise source for this component is traffic noise, which is addressed under *Traffic*, above.

Bayshore Bikeway Component

Operational use of the bikeway would be passive and transient in nature, with no motorized vehicles or other substantial noise sources. Therefore, quantitative analysis of bikeway noise is not required.

City Program – Development Component

Five-story, 150-room hotel, along with 15,500 square feet of restaurant space and 12,000 square feet of retail space: Mechanical equipment, parking lot.

Port Master Plan Amendment Component

The Port Master Plan Amendment Component is required in support of various physical changes proposed by the project, but it would not cause changes to the noise environment directly. Therefore, no specific noise sources are analyzed under this component.

City Program – Plan Amendment Component

The City Program – Plan Amendment Component is required in support of various physical changes proposed by the project, but it would not cause changes to the noise environment directly. Therefore, no specific noise sources are analyzed under this component.

Onsite Noise Source Data and Assumptions

Mechanical Equipment Noise

As noted above, heating, ventilation, and air-conditioning (HVAC) noise was analyzed for RV air cooling units under the GB Capital Component as well as for each hotel proposed under both the GB Capital Component and the City Program – Development Component. Precise equipment details are unavailable because the project plans are conceptual; therefore, it was necessary to make assumptions about equipment noise levels. Based on reported manufacturers' data for various air-conditioning units, sound power levels associated with small RV air-conditioners were estimated to

be approximately 55 to 67 dBA at a distance of 1 meter,[3] depending on the size of the unit and output settings. This equates to sound pressure levels of approximately 23 to 35 dBA at 50 feet. For this analysis, it was assumed that all RV sites were occupied, with 50% of them running air-conditioning units at the highest level. Combined noise levels were estimated to be 53.7 dBA for the RV resort after Phase 1 construction (with an estimated 135 sites) and 50.8 dBA after Phase 2 of construction (with an estimated 70 sites).[4] Based on a prior study conducted for a large hotel, mechanical equipment for each hotel was assumed to include a cooling tower, rooftop air-handling units, exhaust fans, a hot-water pump, and dedicated outdoor air systems. Manufacturers' data indicate sound power levels of approximately 81 to 106 dBA, which equates to noise levels of 46 to 71 dBA at a distance of 50 feet (District 2020). For this analysis, a mix consisting of nine pieces of equipment was assumed for each proposed hotel, with an estimated combined noise level of 76 dBA at a reference distance of 50 feet. It was assumed that all equipment would run simultaneously. It was conservatively assumed that all mechanical equipment would be installed at unshielded exterior locations within the project site. The noise was assumed to occur 24 hours per day.

Parking Lot Noise

Source noise levels due to parking lot vehicle activity were estimated using SoundPLAN software. The calculation of noise emission sound power levels is based on the number of parking spaces and the number of vehicle movements during the peak hour. The total number of parking spaces and peak-hour movements for each parking lot were obtained from the TIA. The sound power level for each parking lot was calculated and then converted to a sound pressure level at a reference distance of 50 feet. The calculations for each parking lot are shown in Table 4.10-10. Noise was assumed to occur 24 hours per day, which is a conservative estimate because most hours of the day would experience fewer vehicle movements than the analyzed peak hour, especially at night.

Table 4.10-10. Calculated Parking Lot Reference Noise Levels

Parking Lot	Estimated Sound Power Level, dBA	Sound Pressure Level at 50 Feet, L_{eq}, dBA
GB Capital Component, Phase 1 RV and vehicle parking lot	96.0	64.4
GB Capital Component, Phase 2 RV and vehicle parking lot	100.5	68.8
City Program – Development Component hotel, retail, and restaurant parking	98.9	67.3
Pepper Park parking	92.6	61.0

dBA = A-weighted decibels; Leq = equivalent sound level

Noise Levels from Exterior Activity Areas (i.e., Park and Swimming Pools)

Day-to-day operational noise at exterior activity areas is anticipated to be generated primarily by voices. Park users would use features such as the proposed playground, splashpad, and picnic areas, and hotel and RV resort guests would use swimming pool areas within the GB Capital Component during normal hours of operation. It is assumed that these areas would be open to the public or

[3] https://www.frigidaire.com/Home-Comfort/Air-Conditioning/Window-Mounted-AC/FFRA1222UE/

[4] https://www.lg.com/us/air-conditioners/lg-lw1517ivsm and https://www.lg.com/us/air-conditioners/lg-LW2217IVSM

guests during daytime and evening hours (7:00 a.m. to 10:00 p.m.). Depending on the level of vocal effort, the associated noise levels would range from about 71 dBA to 75 dBA (loud voices), with occasional shouting reaching levels as high as 82 to 88 dBA at a distance of 1 meter (Harris 1998). It was assumed that 100 people would occupy Pepper Park and each pool area at one time, with one half of those occupants engaged in conversation (one person speaking and other[s] listening), resulting in a total of 50 people speaking simultaneously. It is also assumed that 40 people would be speaking with a "loud" voice, while 10 people would be "shouting." At a reference distance of 50 feet, noise levels were estimated to be 73.2 dBA for Pepper Park and each pool area. The noise at the pool areas was assumed to occur during daytime hours only, with those areas closed to visitors during the nighttime hours of 10:00 p.m. to 7:00 a.m. However, because Pepper Park is open from 6:00 a.m. to 10:30 p.m., it was assumed that noise levels could occur during daytime or nighttime hours. This is very likely a conservative assumption because active park utilization would be expected to be low during early-morning and late-evening hours.

Amphitheater

The Balanced Plan proposes the addition of an amphitheater as part of Pepper Park expansion and reconfiguration. The specifics of this feature have yet to be determined; however, assumptions about future noise conditions can be made. Noise associated with an amphitheater would include amplified speech or music from events or live concerts. Noise measurements taken by ICF personnel were obtained from a previous study involving a small amphitheater/band stand at Irvine Regional Park in Orange, California. This venue is expected to be a reasonable representation of the Pepper Park amphitheater because it hosts free concerts that are open to the public. Similarly, professional, ticketed events (e.g., pay-to-attend concerts) are not anticipated at the Pepper Park. Irvine Regional Park amphitheater has a permanent band shell. A blues band with full amplification performed at the venue; it is anticipated that this would be representative of acts at the louder end of the range at Pepper Park. While a permanently installed sound system is not anticipated at Pepper Park, a temporary sound system would be set up for concerts. Noise levels were measured at 200 feet from the front of the center of the stage during the live performance and found to be approximately 79.1 dBA L_{eq}. This equates to approximately 91.1 dBA at a reference distance of 50 feet. It is assumed that this type of act at Pepper Park would occur only as part of an organized event, such as a summer concert series or other community gathering event. It was assumed that amphitheater noise levels could occur during daytime or nighttime hours because the park remains open until 10:30 p.m. (i.e., past 10:00 p.m.).

Boat Storage Noise

Equipment associated with operation of the dry boat storage facility has not been specified. The project proposes 40,000 square feet of dry boat storage in a multi-storied facility that would be capable of storing up to 210 boats. The project also proposes an approximately 8,200-square-foot maintenance yard northeast of the proposed dry boat storage facility. The new maintenance area would be used by boat owners (or authorized personnel) while carrying out light maintenance (e.g., cleaning, waxing, touch-up painting) or minor electrical/engine repairs. Heavy repairs or hull painting would not be performed on the site. Therefore, it is assumed that the maintenance yard would not be the primary noise source; it was not analyzed as an operational noise source. Assumptions regarding noise levels from the equipment used to lift boats into and out of the storage structure were based on noise levels from heavy construction equipment used for lifting, as described in FHWA's RCNM (FHWA 2008). Average noise levels from dry boat storage equipment were estimated to be 75.1 dBA, based on typical levels for a front-end loader. It was assumed that

the dry boat storage facility could be accessed during either daytime or nighttime hours. Therefore, associated noise could occur during those hours.

4.10.6.3 Thresholds of Significance

As described in Section 4.10.6.1, the proposed project would both introduce new noise-sensitive uses and substantially change the existing noise environment, either by adding new noise sources or by making notable changes to existing noise sources. For this reason, potential impacts on the onsite receptors are included in the analysis, and the corresponding thresholds of impact are included below.

The following significance criteria are based on Appendix G of the State CEQA Guidelines and the various laws, regulations, and guidelines discussed in Section 4.10.5. The District has not adopted its own specific thresholds of impact for potential noise and vibration impacts and therefore uses the applicable standards and guidelines of other agencies, such as the City or Caltrans.

Impacts would be considered significant if the proposed project were to result in any of the following:

1. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project, in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies. This impact would occur if:
    a. Project construction noise would exceed the City's Municipal Code limit of 70 dBA L_{max} at any noise-sensitive receptor between the hours of 7:00 a.m. and 7:00 p.m. on weekdays;
    b. As a result of the project, traffic noise at any offsite noise-sensitive receptor would increase by 3 dB or more to level that would exceed the applicable "compatible" noise exposure identified in the National City General Plan (60 dB CNEL for single-family homes, 65 dB CNEL for visitor accommodations, etc.);
    c. Predicted traffic noise levels at noise-sensitive receptors proposed by the project would exceed the applicable "compatible" noise exposure identified in the National City General Plan (65 dB CNEL for visitor accommodations, 70 dB CNEL at Pepper Park);
    d. As a result of the project, rail noise at any offsite noise-sensitive receptor would increase by 3 dB or more to level that would exceed the applicable "compatible" noise exposure identified in the National City General Plan (60 dB CNEL for single-family homes, 65 dB CNEL for visitor accommodations, etc.);
    e. Predicted rail noise levels at noise-sensitive receptors proposed by the project would exceed the applicable "compatible" noise exposure identified in the National City General Plan (65 dB CNEL for visitor accommodations, 70 dB CNEL at Pepper Park);
    f. Noise levels from onsite operations would exceed the applicable noise standards of the City's Municipal Code (refer to Table 4.10-7) at existing offsite noise-sensitive receptors;
    g. Noise levels from onsite operations would increase ambient noise levels at existing offsite noise-sensitive receptors by 5 dB hourly equivalent sound level (L_{eq}(h)) or more; or
    h. Noise levels from onsite operations at a proposed new land use would exceed the applicable noise standards of the City's Municipal Code (refer to Table 4.10-7) at a different proposed new noise-sensitive land use.

2. Generate excessive groundborne vibration or groundborne noise levels. This impact would occur if:
    a. Project construction would generate groundborne vibration levels at any existing offsite building that would exceed Caltrans guideline vibration damage criteria for the applicable building category (refer to Table 4.10-4);
    b. Project construction would generate groundborne vibration levels at any existing occupied offsite sensitive building that would exceed Caltrans guideline vibration annoyance criteria for distinctly perceptible vibration (refer to Table 4.10-5);
    c. Project operation would generate groundborne vibration in excess of the City's Municipal Code limit of 0.1 in/sec PPV at any existing occupied offsite sensitive building; or
    d. Groundborne vibration from onsite operations at one proposed new land use would exceed the City's Municipal Code limit of 0.1 in/sec PPV at a different vibration-sensitive land use proposed by the project.
3. Expose people residing or working in the project area within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, to excessive noise levels.

As discussed in Section IX of the project's Initial Study/Environmental Checklist (Appendix A), Threshold 3 is not included in the analysis below as it was determined that the proposed project would not result in significant impacts related to excessive noise levels associated with a public airport or public use airport. The analysis and conclusions therein are incorporated by reference into this section of the Draft EIR and are summarized in Chapter 6, *Additional Consequences of Project Implementation*. Therefore, only Thresholds 1 and 2 are discussed in the impact analysis that follows.

4.10.6.4 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project, in excess of standards established in the City's Noise Ordinance or the Noise Element of the City's General Plan.

Impact Discussion

Construction

Two types of short-term noise impacts could occur during project construction. First, construction workers' vehicles and haul trucks for transporting equipment and materials would incrementally increase noise levels on access roads. Up to 211 construction workers per day and 966 haul trucks could access the project if all project components are constructed simultaneously. Assuming these would be round trips, this would equate to approximately 2,350 daily trips, with a relatively large percentage (82%) of truck trips. Because these trips would be split between the various project locations, they would not all affect the same roadway segments. Nonetheless, the construction traffic could generate noticeable noise increases along roads with modest existing ADTs, such as Marina Way (1,390 existing ADT) and Tidelands Avenue (1,683 existing ADT), and noise increases may be

noticeable at the existing Best Western Plus Marina Gateway Hotel located next to Marina Way and Bay Marina Drive. None of the primary access roads (Bay Marina Drive, Marina Way, Tidelands Avenue, 32nd Street, and the south end of Cleveland Avenue) are adjacent to any other offsite sensitive receptors. Depending on the timing of construction versus the opening of proposed project elements, construction traffic noise could also affect the proposed hotel at the City Program – Development Component, the proposed RV resort at the GB Capital Component, or one or more of the proposed hotels at Phase 2 of the GB Capital Component. However, any traffic noise increases would occur primarily during daytime hours when visitor accommodations are not considered noise sensitive. As a result, short-term construction-related impacts associated with commuting workers and the transport of equipment to the project site would be less than significant at all existing noise-sensitive receptors and proposed project components.

The second type of short-term noise impact would be related to noise generated during physical project construction. Construction is proposed to occur between 7:00 a.m. and 7:00 p.m., in compliance with City codes and regulations, and be restricted to Monday through Friday. Because hotels and other visitor accommodations are not considered noise-sensitive during these hours, all construction noise impacts at those uses (both off site and on site) would be less than significant. Because the National City Depot Museum is open to the public only during the weekend, which is outside of construction hours, all construction noise impacts at that location would also be less than significant. However, anticipated noise levels at hotels, visitor accommodations, and the museum are reported for disclosure purposes.

The results are summarized in Tables 4.10-11 and 4.10-12, which show the predicted maximum noise levels at the closest offsite and onsite receptors, respectively. Noise levels that exceed the threshold of 70 dBA L_{max} at noise-sensitive receptors are indicated in the tables with an asterisk. These significant impacts would occur at multiple locations as summarized below (**Impact-NOI-1**).

- At single-family residences on Cleveland Avenue due to pile driving at the City Program – Development Component.
- At residences (single-family or apartments) along Cleveland Avenue or McKinley Avenue between West 14th Street and West 23rd Street due to construction of Bayshore Bikeway Component Route 1, 2, or 3. (Given the linear nature of the proposed bikeway, the highest noise levels at any individual receptor are anticipated to occur for a relatively short period, and noise levels would decrease rapidly as construction moves away along the alignment.)
- At the National City Adult School due to pile driving at the City Program – Development Component.
- At the existing Pepper Park due to pile driving at the GB Capital Component (Phase 1 waterside improvements, and Phase 2 improvements) and other construction at the GB Capital Component (Phase 1 landside improvements, Phase 1 waterside improvements, and Phase 2 improvements).
- At the proposed Pepper Park expansion of the Balanced Plan due to pile driving at the GB Capital Component (Phase 1 waterside improvements, and Phase 2 improvements), other construction at the GB Capital Component (Phase 1 landside improvements, Phase 1 waterside improvements, and Phase 2 improvements), and the potential use of high impact demolition equipment at the Pasha Road Closures Component.

Mitigation measures would be required for these impacts (**MM-NOI-1**, **MM-NOI-2**, and **MM-NOI-3**).

Table 4.10-11. Estimated Construction Noise Levels at Offsite Noise-Sensitive Receptors

Project Component, Construction Equipment Type	L_{max}, dBA[1]					
	R1: SFR – Wilson Avenue	R2: SFR – Cleveland Avenue	R4: National City Depot Museum	R6: National City Adult School	R7: Best Western Hotel	R17: Pepper Park
Balanced Plan – Transportation Improvements[2]						
High impact demolition equipment	40	48	51	49	55	N/A
General mechanized construction equipment	34	43	45	44	50	N/A
Balanced Plan – Pepper Park[2]						
High impact demolition equipment	37	43	45	44	47	N/A
General mechanized construction equipment	32	38	39	38	42	N/A
GB Capital Component, Phase 1, Landside Improvements[2]						
High impact demolition equipment	39	48	50	49	54	**79***
General mechanized construction equipment	34	42	45	43	49	**73***
GB Capital Component, Phase 1, Waterside Improvements						
Pile driving	48	53	54	55	57	**82***
High impact demolition equipment	37	42	43	44	46	**71***
General mechanized construction equipment	32	37	38	38	40	66
GB Capital Component, Phase 2						
Pile driving	49	56	58	57	61	**94***
High impact demolition equipment	38	45	47	46	50	**83***
General mechanized construction equipment	33	40	41	41	44	**77***
Pasha Rail Improvement Component[2]						
High impact demolition equipment	40	48	51	49	55	69
General mechanized construction equipment	34	43	45	44	50	63
Pasha Road Closures Component[2]						
High impact demolition equipment	42	51	56	48	55	70
General mechanized construction equipment	36	46	51	43	49	65
Bayshore Bikeway Route 1[2]						
High impact demolition equipment	62	**77***	87	68	85	52

Project Component, Construction Equipment Type	L_{max}, dBA[1]					
	R1: SFR – Wilson Avenue	R2: SFR – Cleveland Avenue	R4: National City Depot Museum	R6: National City Adult School	R7: Best Western Hotel	R17: Pepper Park
General mechanized construction equipment	57	**71***	81	63	79	47
Bayshore Bikeway Route 2[2]						
High impact demolition equipment	51	**90***	72	61	90	56
General mechanized construction equipment	45	**85***	67	56	85	51
Bayshore Bikeway Route 3[2]						
High impact demolition equipment	62	**77***	75	68	90	53
General mechanized construction equipment	57	**71***	70	63	85	48
City Program – Development Component						
Pile driving	56	**79***	101	**76***	92	56
High impact demolition equipment	45	68	90	65	81	45
General mechanized construction equipment	40	63	85	60	76	39

Source: Appendix J.

1. Noise levels that exceed the threshold of 70 dBA L_{max} at noise-sensitive receptors are indicated with an asterisk (*). Impacts at all hotels/visitor accommodations are less than significant because they are not considered noise-sensitive during permitted construction hours. Impacts at the National City Depot Museum are less than significant because it is not open to the public during permitted construction hours.

2. This project component does not propose pile driving.

SFR = single-family residence

N/A = not applicable where the source and receptor are part of the same project component.

Table 4.10-12. Estimated Construction Noise Levels at Onsite Noise-Sensitive Receptors

Project Component, Construction Equipment Type	L_{max}, dBA[1]								
	R5: Hotel (CPD)	R9: RV Resort (GBC Phase 1 & 2)	R10: Hotel #4 (GBC Phase 2)	R11: Hotel #3 (GBC Phase 2)	R13: Hotel #1 (GBC Phase 2)	R14: Hotel #2 (GBC Phase 2)	R15: RV Resort (GBC Phase 1)	R16: Modular Cabins (GBC Phase 1)	R17: Pepper Park (BP)
Balanced Plan – Transportation Improvements[2]									
High impact demolition equipment	52	90	70	70	90	90	90	58	N/A
General mechanized construction equipment	47	85	65	65	85	85	85	53	N/A
Balanced Plan --Pepper Park[2]									
High impact demolition equipment	45	90	60	68	87	90	90	73	N/A
General mechanized construction equipment	40	85	55	63	82	85	85	67	N/A
GB Capital Component, Phase 1, Landside Improvements[2]									
High impact demolition equipment	51	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**90***
General mechanized construction equipment	46	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**85***
GB Capital Component, Phase 1, Waterside Improvements									
Pile driving	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**101***
High impact demolition equipment	44	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**90***
General mechanized construction equipment	39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**85***
GB Capital Component, Phase 2									
Pile driving	59	101	N/A	N/A	N/A	N/A	N/A	88	**101***
High impact demolition equipment	48	90	N/A	N/A	N/A	N/A	N/A	77	**90***
General mechanized construction equipment	42	85	N/A	N/A	N/A	N/A	N/A	72	**85***
Pasha Rail Improvement Component[2]									
High impact demolition equipment	52	85	69	69	83	75	80	58	70
General mechanized construction equipment	47	80	64	64	77	70	74	52	65
Pasha Road Closures Component[2]									
High impact demolition equipment	55	70	56	58	83	68	83	56	**71***
General mechanized construction equipment	50	65	51	52	78	63	77	50	66
Bayshore Bikeway Route 1[2]									
High impact demolition equipment	90	78	77	73	63	63	63	78	56

Project Component, Construction Equipment Type	L_{max}, dBA[1]								
	R5: Hotel (CPD)	R9: RV Resort (GBC Phase 1 & 2)	R10: Hotel #4 (GBC Phase 2)	R11: Hotel #3 (GBC Phase 2)	R13: Hotel #1 (GBC Phase 2)	R14: Hotel #2 (GBC Phase 2)	R15: RV Resort (GBC Phase 1)	R16: Modular Cabins (GBC Phase 1)	R17: Pepper Park (BP)
General mechanized construction equipment	85	73	71	67	57	58	58	72	50
Bayshore Bikeway Route 2[2]									
High impact demolition equipment	90	90	90	79	67	68	68	90	61
General mechanized construction equipment	85	85	85	73	62	63	63	85	56
Bayshore Bikeway Route 3[2]									
High impact demolition equipment	90	90	85	79	64	64	64	90	57
General mechanized construction equipment	85	85	80	73	59	59	59	85	52
City Program – Development Component									
Pile driving	N/A	61	59	58	58	57	58	57	57
High impact demolition equipment	N/A	50	48	47	47	46	47	46	46
General mechanized construction equipment	N/A	45	42	42	41	41	41	41	40

Source: Appendix J.

[1] Noise levels that exceed the threshold of 70 dBA L_{max} at noise-sensitive receptors are indicated with an asterisk (*). Impacts at all hotels/visitor accommodations are less than significant because they are not considered noise-sensitive during permitted construction hours.

[2] This project component does not propose pile driving.

SFR = single-family residence
CPD = City Program – Development Component
GBC = GB Capital Component
BP = Balanced Plan

Operation

Traffic (Offsite Impacts)

Traffic noise levels were estimated along each of the 20 roadway segments analyzed in the TIA for the proposed project. The traffic noise analysis is provided in Appendix K, and the results are summarized in Tables 4.10-13 and 4.10-14. For each project scenario, Table 4.10-13 shows the estimated traffic noise level, and Table 4.10-14 shows the resulting noise increase relative to existing conditions. Noise-sensitive land uses adjacent to the analyzed roadways consist of single-family homes, apartments, and a hotel. Analysis was conducted for these roadways using a typical receptor setback of 50 feet from the centerline of the roadway.

Referring to the summarized results, noise levels under the existing and existing-plus-project scenarios range from approximately 49 to 72 dB CNEL at 50 feet from the centerline of the studied roadways. Traffic noise levels currently exceed the applicable exterior threshold of 60 dB CNEL at single-family homes adjacent to Cleveland Avenue between West 18th Street and West 23rd Street. Existing traffic noise levels also exceed the applicable exterior threshold of 65 dB CNEL at the Best Western Hotel adjacent to Bay Marina Drive between Marina Way and Cleveland Avenue. However, project-generated traffic would not increase noise levels by 3 dB or more at any of these locations under any of the analyzed project scenarios. Therefore, the traffic noise impact would be less than significant at all existing offsite receptors.

Table 4.10-13. Estimated Traffic Noise Levels for Offsite Assessment

	Estimated Unmitigated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)											
Roadway/Segment	Ex	Ex + DP	Ex + DPW	Ex + DPW +GH	Ex + TB	Ex + TB + GH	Ex+ Cl of BM	Ex + P-Cl of BM	Ex + TB + Cl of BM	Ex + TB + GH + Cl of BM	Ex + TB + P-Cl of BM	Ex + TB + GH + P-Cl of BM
Tidelands Avenue/Civic Center Drive[1]												
Harbor Dr–W 19th St[2]	60.9	60.9	60.9	60.9	60.9	60.9	67.5	60.9	67.5	67.5	60.9	60.9
W 19th St–Bay Marina Dr[2]	61.7	61.7	61.7	61.7	61.7	61.7	67.7	61.7	67.8	67.8	61.7	61.7
Bay Marina Dr–W 32nd St[2]	60.5	Closed	60.5	60.5	Closed	Closed	Closed	60.5	Closed	Closed	Closed	Closed
McKinley Avenue/West 23rd Street[3]												
W 14th St–W 18th St	50.0	51.5	50.0	50.0	51.5	51.5	50.0	50.0	50.0	50.0	51.5	51.5
W 18th St–W 19th St[2]	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.3	50.3	50.2	50.2
W 19th St–Cleveland Ave	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3
Cleveland Avenue												
Civic Center Dr–W 14th St[2]	61.3	61.3	61.3	61.6	61.3	61.6	61.3	61.3	61.3	61.6	61.3	61.6
W 14th St–W 18th St[2]	61.2	61.2	61.3	61.5	61.8	62.0	61.2	61.2	61.3	61.6	61.8	62.0
W 18th St–W 19th St	61.7	61.8	61.8	62.0	62.1	62.3	61.7	61.7	61.9	62.1	62.1	62.3
W 19th St–W 23rd St	61.5	61.9	61.6	61.9	62.1	62.4	61.5	61.5	62.1	62.2	62.1	62.4
W 23rd St–Bay Marina Dr[2]	62.0	65.4	62.1	62.3	65.4	65.5	62.0	62.0	65.5	65.6	65.4	65.5
Bay Marina Drive												
Tidelands Ave–Marina Way[2]	65.9	66.0	65.9	65.9	66.0	66.0	Closed	65.9	Closed	Closed	66.0	66.0
Marina Way–Cleveland Ave	66.4	68.6	66.4	67.4	68.6	69.2	59.6	66.4	65.8	66.9	68.6	69.2
Cleveland Ave–I-5 SB ramps[2]	68.8	71.3	68.8	69.3	71.3	71.6	66.2	68.8	70.0	70.4	71.3	71.6
I-5 SB Ramps–I-5 NB ramps[2]	70.4	70.8	70.4	70.6	70.8	71.0	69.4	70.4	69.9	70.2	70.8	71.0
West 18th Street												
Cleveland Ave–McKinley Ave	53.8	54.2	53.8	53.9	55	55.1	53.8	53.8	54.2	54.2	55	55.1
West 19th Street												
Tidelands Ave–Cleveland Ave[2]	58.8	59.1	58.8	58.8	59.1	59.1	58.8	58.8	59.3	59.3	59.1	59.1
Cleveland Ave–McKinley Ave[2]	56.4	56.6	56.4	56.5	56.5	56.5	56.4	56.4	56.6	56.7	56.5	56.5
Marina Way												
Bay Marina Dr–W 32nd St	53.1	59.5	53.4	56.9	59.6	60.7	53.1	53.1	59.6	60.7	59.6	60.7

Roadway/Segment	Estimated Unmitigated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)											
	Ex	Ex + DP	Ex + DPW	Ex + DPW +GH	Ex + TB	Ex + TB + GH	Ex+ Cl of BM	Ex + P-Cl of BM	Ex + TB + Cl of BM	Ex + TB + GH + Cl of BM	Ex + TB + P-Cl of BM	Ex + TB + GH + P-Cl of BM
32nd Street												
Tidelands Ave–Marina Way[2]	50.3	50.6	50.9	56.0	51.2	56.1	50.3	50.3	50.9	56.0	51.2	56.1

Source: Appendix J.

1. The north end Tidelands Avenue becomes Civic Center Drive just west of Cleveland Avenue.

2. No existing offsite noise-sensitive receptors are adjacent to this roadway segment.

3. The south end of McKinley Avenue turns into West 23rd Street just east of Cleveland Avenue.

Cl of BM = Closure of Bay Marina Dr; CNEL = Community Noise Equivalent Level; dB = decibels; DP = Development Projects; DPW = District Public Works; Ex = Existing; GH = Granger Hall; NB = northbound; P-Cl of BM = Partial Closure of Bay Marina Dr; SB = southbound; TB = Total Bayfront.

Table 4.10-14. Estimated Traffic Noise Level Increases for Offsite Assessment

Roadway/Segment	Existing Noise Levels	Estimated Traffic Noise Level Increases Above Base Conditions (dB CNEL)										
		Ex + DP	Ex + DPW	Ex + DPW + GH	Ex + TB	Ex + TB + GH	Ex + Cl of BM	Ex + P-Cl of BM	Ex + TB + Cl of BM	Ex + TB + GH + Cl of BM	Ex + TB + P-Cl of BM	Ex + TB + GH + P-Cl of BM
Tidelands Avenue/Civic Center Drive[1]												
Harbor Dr–W 19th St[2]	60.9	0.0	0.0	0.0	0.0	0.0	6.6	0.0	6.6	6.6	0.0	0.0
W 19th St–Bay Marina Dr[2]	61.7	0.0	0.0	0.0	0.0	0.0	6.0	0.0	6.1	6.1	0.0	0.0
Bay Marina Dr–W 32nd St[2]	60.5	Closed	0.0	0.0	Closed	Closed	Closed	0.0	Closed	Closed	Closed	Closed
McKinley Avenue/West 23rd Street[3]												
W 14th St–W 18th S	50.0	1.5	0.0	0.0	1.5	1.5	0.0	0.0	0.0	0.0	1.5	1.5
W 18th St–W 19th St[2]	50.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
W 19th St–Cleveland Ave	49.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cleveland Avenue												
Civic Center Dr–W. 14th St[2]	61.3	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.3
W 14th St–W 18th St[1]	61.2	0.0	0.1	0.3	0.6	0.8	0.0	0.0	0.1	0.4	0.6	0.8
W 18th St–W 19th St	61.7	0.1	0.1	0.3	0.4	0.6	0.0	0.0	0.2	0.4	0.4	0.6
W 19th St–W 23rd St	61.5	0.4	0.1	0.4	0.6	0.9	0.0	0.0	0.6	0.7	0.6	0.9
W 23rd St–Bay Marina Dr[2]	62	3.4	0.1	0.3	3.4	3.5	0.0	0.0	3.5	3.6	3.4	3.5
Bay Marina Drive												
Tidelands Ave–Marina Way[2]	65.9	0.1	0.0	0.0	0.1	0.1	Closed	0.0	Closed	Closed	0.1	0.1
Marina Way–Cleveland Ave	66.4	2.2	0.0	1.0	2.2	2.8	0.0	0.0	0.0	0.5	2.2	2.8
Cleveland Ave–I-5 SB ramps[2]	68.8	2.5	0.0	0.5	2.5	2.8	0.0	0.0	1.2	1.6	2.5	2.8
I-5 SB ramps–I-5 NB ramps[2]	70.4	0.4	0.0	0.2	0.4	0.6	0.0	0.0	0.0	0.0	0.4	0.6
West 18th Street												
Cleveland Ave–McKinley Ave	53.8	0.4	0.0	0.1	1.2	1.3	0.0	0.0	0.4	0.4	1.2	1.3
West 19th Street												
Tidelands Ave–Cleveland Ave[2]	58.8	0.3	0.0	0.0	0.3	0.3	0.0	0.0	0.5	0.5	0.3	0.3
Cleveland Ave–McKinley Ave[2]	56.4	0.2	0.0	0.1	0.1	0.1	0.0	0.0	0.2	0.3	0.1	0.1

Roadway/Segment	Existing Noise Levels	Estimated Traffic Noise Level Increases Above Base Conditions (dB CNEL)										
		Ex + DP	Ex + DPW	Ex + DPW + GH	Ex + TB	Ex + TB + GH	Ex + Cl of BM	Ex + P-Cl of BM	Ex + TB + Cl of BM	Ex + TB + GH + Cl of BM	Ex + TB + P-Cl of BM	Ex + TB + GH + P-Cl of BM
Marina Way												
Bay Marina Dr–W 32nd St	53.1	6.4	0.3	3.8	6.5	7.6	0.0	0.0	6.5	7.6	6.5	7.6
32nd Street												
Tidelands Ave–Marina Way[2]	50.3	0.3	0.6	5.7	0.9	5.8	0.0	0.0	0.6	5.7	0.9	5.8

Source: Appendix J.

1. The north end Tidelands Avenue becomes Civic Center Drive just west of Cleveland Avenue.

2. No existing offsite noise-sensitive receptors are adjacent to this roadway segment.

3. The south end of McKinley Avenue turns into West 23rd Street just east of Cleveland Avenue.

Cl of BM = Closure of Bay Marina Dr; CNEL = Community Noise Equivalent Level; dB = decibels; DP = Development Projects; DPW = District Public Works; Ex = Existing; GH = Granger Hall; NB = northbound; P-Cl of BM = Partial Closure of Bay Marina Dr; SB = southbound; TB = Total Bayfront.

Traffic (Onsite Impacts)

Only a small subset of the analyzed roadway segments would run adjacent to the proposed new noise-sensitive receptors:

- West 23rd Street west of Cleveland Avenue (adjacent to the north side of the City Program – Development Component).
- Cleveland Avenue between West 23rd Street and Bay Marina Drive (bisecting the City Program – Development Component).
- Bay Marina Drive between Marina Way and the I-5 southbound ramps (adjacent to the south side of the City Program – Development Component).
- Marina Way between Bay Marina Drive and 32nd Street and 32nd Street between Tidelands Avenue and Marina Way (both adjacent to the northwest side of the GB Capital Component).

Table 4.10-15 summarizes the predicted noise levels adjacent to these roadway segments under all analyzed development scenarios and time horizons. All of the proposed noise-sensitive developments adjacent to the roadway segments are visitor accommodations (hotels or RV sites), which would have a noise exposure threshold of 65 dB CNEL per the City's General Plan. Noise levels that exceed the threshold are indicated in the table with an asterisk. As illustrated in the table, there are multiple exceedances of the threshold at the proposed City Program – Development Component. Assuming a hotel is constructed at this location as currently planned, it could be exposed to noise levels in excess of 65 dB CNEL from both Cleveland Avenue and Bay Marina Drive. This would be a significant traffic noise impact on at the proposed City Program – Development Component (**Impact-NOI-2**), and mitigation (**MM-NOI-4**) would be required to reduce noise at sensitive interior spaces to comply with the City's standard of 45 dB CNEL.

Traffic noise impacts at the following proposed project components with noise-sensitive uses would be less than significant: Balanced Plan and GB Capital Component.

There would be no traffic noise impacts at the following project components because they do not have any noise-sensitive uses: Pasha Rail Improvement Component, Pasha Road Closures Component, and the Bayshore Bikeway Component.

Table 4.10-15. Estimated Traffic Noise Levels for Onsite Assessment

	Estimated Unmitigated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)										
Roadway/Segment	DP	DPW	DPW + GH	TB	TB + GH	Cl of BM	P-Cl of BM	TB + Cl of BM	TB + GH + Cl of BM	TB + P-Cl of BM	TB-GH + P-Cl of BM
McKinley Avenue/West 23rd Street[1]											
W 19th St–Cleveland Ave											
Existing	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3
Near Term	50.0	50.0	N/A	50.0	50.0	N/A	N/A	49.3	49.3	50.0	50
Future	50.0	50.0	N/A	50.0	50.0	N/A	N/A	49.3	49.3	50.0	50
Cleveland Avenue											
W 23rd St–Bay Marina Dr											
Existing	**65.4***	62.1	**62.3**	**65.4***	**65.5***	62.0	62.0	**65.5***	**65.6***	**65.4***	**65.5***
Near Term	**65.5***	62.3	N/A	**65.5***	62.6	N/A	N/A	**65.5***	**67.1***	**65.7***	**65.7***
Future	**65.7***	62.7	N/A	**65.7***	**66.0***	N/A	N/A	**65.5***	**65.6***	**65.7***	**66.0***
Bay Marina Drive											
Marina Way–Cleveland Ave											
Existing	**68.6***	**66.4***	**67.4***	**68.6***	**69.2***	59.6	**66.4***	**65.8***	**66.9***	**68.6***	**69.2***
Near Term	**69.6***	**68.0***	N/A	**69.6***	**68.7***	N/A	N/A	**66.2***	**67.2***	**69.7***	**70.1***
Future	**69.6***	**68.1***	N/A	**69.7***	**70.4***	N/A	N/A	**66.2***	**67.3***	**69.7***	**70.4***
Cleveland Ave–I-5 SB ramps											
Existing	**71.3***	**68.8***	**69.3***	**71.3***	**71.6***	**66.2***	**68.8***	**70.0***	**70.4***	**71.3***	**71.6***
Near Term	**72.2***	**70.4***	N/A	**72.2***	**70.7***	N/A	N/A	**70.8***	**71***	**72.3***	**72.5***
Future	**72.3***	**70.5***	N/A	**72.3***	**72.7***	N/A	N/A	**70.8***	**71.3***	**72.3***	**72.7***
Marina Way											
Bay Marina Dr–32nd St											
Existing	59.5	53.4	56.9	59.6	60.7	53.1	53.1	59.6	60.7	59.6	60.7
Near Term	59.6	53.7	N/A	59.7	57.0	N/A	N/A	59.6	60.7	59.8	60.8
Future	59.8	54.1	N/A	59.8	60.9	N/A	N/A	59.6	60.7	59.8	60.9

Roadway/Segment	Estimated Unmitigated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)										
	DP	DPW	DPW + GH	TB	TB + GH	Cl of BM	P-Cl of BM	TB + Cl of BM	TB + GH + Cl of BM	TB + P-Cl of BM	TB-GH + P-Cl of BM
32nd Street											
Tidelands Ave–Marina Way											
Existing	50.6	50.9	56.0	51.2	56.1	50.3	50.3	50.9	56.0	51.2	56.1
Near Term	50.9	51.1	N/A	51.5	56.0	N/A	N/A	50.9	56.0	51.5	56.2
Future	51.0	51.5	N/A	51.5	56.2	N/A	N/A	50.9	56.0	51.5	56.2

Source: Appendix J.

1. The south end of McKinley Avenue turns into West 23rd Street just east of Cleveland Avenue.

N/A = not analyzed in TIA

* = exceeds applicable threshold of 65 dB CNEL for visitor accommodations

Cl of BM = Closure of Bay Marina Dr; CNEL = Community Noise Equivalent Level; dB = decibels; DP = Development Projects; DPW = District Public Works; Ex = Existing; GH = Granger Hall; NA = not applicable; NB = northbound; P-Cl of BM = Partial Closure of Bay Marina Dr; SB = southbound; TB = Total Bayfront.

Rail Operations (Offsite Impacts)

The proposed project would not result in any new trains traveling near the project site. Therefore, there would be no increase in rail noise levels at existing land uses adjacent to the tracks leading to and from the project site. The closest offsite sensitive receptor to the Pasha Rail Improvement Component is the Best Western Hotel (receptor R7) approximately 1,300 feet (0.25 mile) north of the proposed connector track and storage track. The hotel is across Marina Way from BNSF's National City Rail Yard. The proposed connector track would improve efficiencies for Pasha's operations at NCMT, resulting in a reduced number of maneuvers and the time associated with these actions, which could incrementally reduce noise levels produced in the rail yard. As a result, rail noise impacts at offsite receptors due to the project would be less than significant.

Rail Operations (Onsite Impacts)

The closest onsite noise-sensitive receptors to the Pasha Rail Improvement Component are the proposed visitor accommodations at the GB Capital Component. The closest proposed RV sites and the closest proposed hotel building would each be approximately 150 feet from the proposed new tracks associated with the Pasha Rail Improvement Component. At that distance, noise modeling provided in Appendix J indicates that the daily noise level from the Pasha Rail Improvement Component would be approximately 68 dB L_{dn}. In addition to the rail noise from the proposed project, the visitor accommodations (associated with the GB Capital Component) would also be exposed to noise from existing rail operations in the vicinity. Noise from existing rail operations in the vicinity of the National City Marine Terminal were calculated as part of a 2012 noise study (SD Freight Rail Consulting 2012). Rail noise contours provided in the study indicate existing noise levels of approximately 71 dB L_{dn} at the closest proposed hotel and approximately 68 dB L_{dn} at the proposed RV resort. Adding together the rail noise levels from the existing environment and the proposed project results in overall rail noise levels of up to 71 dB L_{dn} at the RV resort and 73 dB L_{dn} at the closest hotel. This indicates the proposed Pasha Rail Improvement Component would increase rail noise levels by 2 to 3 dB at the closest noise-sensitive receptors. It is noted that none of the estimated noise levels included possible shielding effects (i.e., noise reduction) that might be provided by the proposed dry boat storage facility. The dry boat storage facility was excluded from the analysis because conceptual designs indicate it would be an open structure without solid walls and would, therefore, not be expected to serve as an effective noise barrier. In addition, there is no guarantee that the boat storage facility would be constructed before the neighboring components are operational.

For the purposes of assessing impacts, it is assumed that L_{dn} and CNEL are equivalent (they are typically within about 1 dB of each other) and the predicted noise levels can be compared to the City's General Plan noise exposure threshold of 65 dB CNEL for visitor accommodations. Therefore, if both the Pasha Rail Improvement Component and the proposed visitor accommodations associated with the GB Capital Component are constructed, the impact would be significant (**Impact-NOI-3**) because noise levels would exceed the applicable threshold and would increase noise levels above existing ambient levels at proposed noise-sensitive receptors. This impact would occur at the GB Capital Component but would be caused by both the GB Capital Component (for creating the noise-sensitive receptors) and the Pasha Rail Improvement Component (for introducing new noise sources that would increase ambient levels and exceed applicable thresholds). Mitigation (**MM-NOI-5** and **MM-NOI-6**) would be required to reduce exterior noise levels at the RV sites to comply with the City's standard of 65 dB CNEL and to reduce interior noise levels at sensitive spaces within the hotels to comply with the City's standard of 45 dB CNEL. Rail noise impacts at all other

project components would be less than significant. No impact would occur until or unless both the Pasha Rail Improvement Component and GB Capital Component visitor accommodations are constructed, and no mitigation would be required until that time.[5]

Onsite Operations (Offsite Impacts)

The dominant onsite noise sources would vary by project component but generally include mechanical equipment, parking lot activity, exterior activity areas (i.e., Pepper Park and swimming pools), and dry boat storage operations. Additional noise would also periodically be produced by activities in the amphitheater that is part of the Pepper Park expansion. The source data and assumptions used in the analysis are described in detail in Section 4.10.6.2, *Methodology*. A noise model was developed to calculate the individual noise contribution of each source as well as the overall project noise levels at the nearest offsite sensitive receptors. Activities that would not occur during nighttime hours have been excluded from the nighttime noise analysis. In addition, the analysis considers noise levels from typical operations that represent anticipated day-to-day activities, as well as operations that also include the amphitheater, which would operate less frequently. Because the Best Western Hotel is between the northern and southern project components, noise levels were analyzed at both the northern and southern ends of the hotel. The noise modeling is provided in Appendix J, which shows the contributions from each project element. The results of the analysis are summarized in Table 4.10-16 and discussed in detail below.

Table 4.10-16. Combined Daytime and Nighttime Operational Noise Levels at Offsite Receptors

	Typical Operations, L_{eq}(h), dBA		With Amphitheater Event, L_{eq}(h), dBA	
Receptor	Daytime	Nighttime	Daytime	Nighttime
R2: Single-Family Residences on Cleveland Ave				
Combined Operational Noise Level	51	51*	52	**51***
Threshold	55	45	55	45
Measured Ambient	57	56	57	56
Project + Ambient	58	57	59	57
Ambient Increase	1	1	1	1
Significant Impact?	No	Yes	No	Yes
R4: National City Depot Museum[1]				
Combined Operational Noise Level	61	N/A	61	N/A
Threshold	65	N/A	65	N/A
Measured Ambient	61	N/A	61	N/A
Project + Ambient	64	N/A	64	N/A
Ambient Increase	3	N/A	3	N/A
Significant Impact?	No	N/A	No	N/A
R6: National City Adult School[2]				
Combined Operational Noise Level	38	N/A	39	N/A

[5] If visitor accommodations are constructed in the absence of the Pasha Rail Improvement Component, local building requirements could still require noise control to ensure compliance with local noise standards relative to existing ambient noise levels. However, that issue would be addressed outside the context of the CEQA impacts evaluated in this EIR.

	Typical Operations, L_{eq}(h), dBA		With Amphitheater Event, L_{eq}(h), dBA	
Receptor	Daytime	Nighttime	Daytime	Nighttime
Threshold	60	N/A	60	N/A
Measured Ambient	65	N/A	65	N/A
Project + Ambient	65	N/A	65	N/A
Ambient Increase	0	N/A	0	N/A
Significant Impact?	No	N/A	No	N/A
R7: Best Western Hotel (north end)[3]				
Combined Operational Noise Level	61	**61***	61	**61***
Threshold	65	60	65	60
Measured Ambient	61	57	61	57
Project + Ambient	64	62	64	62
Ambient Increase	3	**5***	3	**5***
Significant Impact?	No	Yes	No	Yes
R7: Best Western Hotel (south end)[3]				
Combined Operational Noise Level	50	50	51	51
Threshold	65	60	65	60
Measured Ambient	61	57	61	57
Project + Ambient	61	58	61	58
Ambient Increase	0	1	0	1
Significant Impact?	No	No	No	No

[1.] Museum open during daytime hours only.
[2.] Noise sensitive during daytime hours only. Teaching does not typically occur between 10:00 p.m. and 7:00 a.m.
[3.] Visitor accommodations are considered noise sensitive only during evening and nighttime hours. Therefore, "daytime" thresholds are applicable only during the evening hours of 7:00 p.m. to 10:00 p.m.
***** = Exceeds applicable noise ordinance and/or noise increase threshold. One or both of these triggers a significant impact.
L_{eq}(h) = hourly equivalent sound level; dBA = A-weighted decibels; N/A = not applicable.

As shown in Table 4.10-16, the estimated operational noise levels would cause significant impacts at single-family residences on Cleveland Avenue as well as at the Best Western Hotel. These impacts would occur during nighttime hours only. Referring to the noise modeling in Appendix J, the impacts would be due primarily to mechanical equipment noise at the City Program – Development Component. Because of large intervening distances, the contribution of noise from other project components would be minimal. Estimated nighttime noise levels at the homes would be 51 dBA L_{eq}(h), which exceeds the municipal code limit of 45 dBA by 6 dB. Estimated nighttime noise levels at the Best Western Hotel would be 61 dBA L_{eq}(h), which exceeds the municipal code limit of 60 dBA by 1 dB; in addition, the predicted noise increase of 5 dB relative to existing conditions would also be a significant impact. It is noted that the hotel impacts would affect the north side of the hotel, which is the side closest to the City Program – Development Component site; impacts would not occur on the south side of the hotel. There would be no operational noise impacts at any other offsite noise-sensitive receptors due to onsite project operations; this is primarily because of the large distances that separate the other project components from the nearest offsite receptors. The impacts at the homes on Cleveland Avenue and the Best Western Hotel would be significant (**Impact-NOI-4**), and mitigation (**MM-NOI-7**) would be required to reduce the operational noise levels below the applicable City standards.

Onsite Operations (Onsite Impacts)

The proposed project would introduce new onsite operational noise sources in proximity to new noise-sensitive receptors, which could lead to potential noise impacts occurring between proposed new land uses. For this reason, the operational noise analysis (Appendix J) considered the future interaction between proposed project components. Specifically, the analysis looked at noise levels occurring at the GB Capital Component visitor accommodations from the dry boat storage facility (also part of the GB Capital Component), the Pepper Park expansion of the Balanced Plan, and the City Program – Development Component; noise levels occurring at the Pepper Park expansion of the Balanced Plan from the GB Capital Component improvements and the City Program – Development Component; and noise levels occurring at the City Program – Development Component from the Pepper Park expansion of the Balanced Plan and the GB Capital Component. The analysis considers noise levels from typical operations that represent anticipated day-to-day activities, as well as operations that also include the amphitheater, which would operate less frequently. The results of the analysis are summarized in Table 4.10-17.

Table 4.10-17. Daytime and Nighttime Operational Noise Levels at Onsite Receptors

	Typical Operations, 1-hour L_{eq}, dBA		With Amphitheater Event, 1-hour L_{eq}, dBA	
Receptor	Daytime	Nighttime	Daytime	Nighttime
R5: Hotel (CPD)[1,2]				
Operational Noise Level from GBC and BP Pepper Park	41	41	46	46
Threshold	65	60	65	60
Significant Impact?	No	No	No	No
R9: RV Resort (GBC Phase 1 & 2)[1,2]				
Operational Noise Level from BP Pepper Park, CPD, and Boat Storage	**66***	**66***	**66***	**66***
Threshold	65	60	65	60
Significant Impact?	**Yes**	**Yes**	**Yes**	**Yes**
R10: Hotel #4 (GBC Phase 2, four stories, 60 rooms)[1,2]				
Operational Noise Level from BP Pepper Park, CPD, and Boat Storage	47	47	55	55
Threshold	65	60	65	60
Significant Impact?	No	No	No	No
R11: Hotel #3 (GBC Phase 2, three stories, 30 rooms)[1,2]				
Operational Noise Level from BP Pepper Park, CPD, and Boat Storage	47	47	57	57
Threshold	65	60	65	60
Significant Impact?	No	No	No	No
R13: Hotel #1 (GBC Phase 2, 11 stories, 282 rooms)[1,2]				
Operational Noise Level from BP Pepper Park, CPD, and Boat Storage	60	60	**69***	**69***
Threshold	65	60	65	60
Significant Impact?	No	No	**Yes**	**Yes**

	Typical Operations, 1-hour L_{eq}, dBA		With Amphitheater Event, 1-hour L_{eq}, dBA	
Receptor	Daytime	Nighttime	Daytime	Nighttime
R14: Hotel #2 (GBC Phase 2, four stories, 81 rooms)[1,2]				
Operational Noise Level from BP Pepper Park, CPD, and Boat Storage	54	54	65	**65***
Threshold	65	60	65	60
Significant Impact?	No	No	No	**Yes**
R15: RV Resort (GBC Phase 1)[1,2]				
Operational Noise Level from BP Pepper Park, CPD, and Boat Storage	**66***	**66***	**73***	**73***
Threshold	65	60	65	60
Significant Impact?	**Yes**	**Yes**	**Yes**	**Yes**
R16: Modular Cabins (GBC Phase 1)[1,2]				
Operational Noise Level from BP Pepper Park, CPD, and Boat Storage	50	50	**66***	**66***
Threshold	65	60	65	60
Significant Impact?	No	No	**Yes**	**Yes**
R17: Pepper Park[3]				
Operational Noise Level from GBC and CPD	59	58	59	58
Threshold	65	60	65	60
Measured Ambient	62	57	62	57
Project + Ambient	64	61	64	61
Ambient Increase	2	3	2	3
Significant Impact?	No	No	No	No

1. Visitor accommodations are considered noise sensitive only during evening and nighttime hours. Therefore, "daytime" thresholds are applicable only during the evening hours of 7:00 p.m. to 10:00 p.m.
2. The GB Capital Component and the City Program – Development Component are new developments; therefore, there are no applicable thresholds regarding ambient noise increases.
3. Operating hours at Pepper Park are 6:00 a.m. to 10:30 p.m. Therefore, "nighttime" thresholds are applicable only during the early-morning hours of 6:00 a.m. to 7:00 a.m. and nighttime hours between 10:00 p.m. and 10:30 p.m.
* = Exceeds applicable noise ordinance threshold.
dBA = A-weighted decibels; L_{eq} = equivalent sound level; CPD = City Program – Development Component; GBC = GB Capital Component; BP = Balanced Plan.

Noise levels that exceed applicable thresholds (City municipal code noise limits) at noise-sensitive receptors are indicated in Table 4.10-17 with an asterisk. These significant impacts would occur at multiple locations as summarized below (**Impact-NOI-5**). Additional noise modeling details are provided in Appendix J.

- Noise from the GB Capital Component dry boat storage facility could exceed applicable daytime and nighttime City noise standards of 65 and 60 dBA L_{eq}(h), respectively, at the GB Capital Component RV Resort.
- Noise from the Balanced Plan Pepper Park amphitheater could exceed the applicable nighttime City noise standard of 60 dBA L_{eq}(h) at the GB Capital Component RV Resort Phase 1, Hotel #1, Hotel #2, and modular cabins.

- Noise from the Balanced Plan Pepper Park amphitheater could exceed the applicable daytime City noise standard of 65 dBA L_{eq}(h) at the GB Capital Component RV Resort Phase 1, Hotel #1, and modular cabins.

The impacts would be significant (**Impact-NOI-5**), and mitigation measures (**MM-NOI-8** and **MM-NOI-9**) would be required to reduce the impacts at the GB Capital Component RV Resort, hotels, and modular cabins. There would be no operational noise impacts at any other onsite noise-sensitive receptors due to onsite project operations.

Level of Significance Prior to Mitigation

Construction

Construction of the proposed project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project, in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies. Potentially significant impacts include:

Impact-NOI-1: Exceedance of the City's Noise Ordinance During Project Construction (Balanced Plan, Bayshore Bikeway Component, City Program – Development Component, GB Capital Component, Pasha Road Closures Component). Noise due to project construction would exceed 70 dBA L_{max} between 7:00 a.m. and 7:00 p.m. at noise-sensitive receptors. These impacts would occur during construction of the Bayshore Bikeway at residential receptors within 520 feet of the selected bikeway alignment; at residential receptors north of the site (on Cleveland Avenue) and the National City Adult School to the east (across I-5) during pile driving at the City Program – Development Component; and at the proposed Balanced Plan Pepper Park due to construction at the GB Capital Component and the Pasha Road Closures Component.

Operation

Operation of the proposed project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project, in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies. Potentially significant impacts include:

Impact-NOI-2: Exceedance of the City's General Plan Noise Exposure Standards Due to Traffic Noise at Onsite Visitor Accommodations (City Program – Development Component). Traffic noise exposure could exceed 65 dB CNEL at the proposed City Program – Development Component proposed hotel site due to traffic on Cleveland Avenue and Bay Marina Drive.

Impact-NOI-3: Exceedance of the City's General Plan Noise Exposure Standards Due to Rail Noise at Proposed Onsite Visitor Accommodations (GB Capital Component, Pasha Rail Improvement Component). Rail noise exposure could exceed 65 dB CNEL at the proposed hotels and RV resort at the GB Capital Component site due to operations at the proposed Pasha Rail Improvement Component and existing NCMT rail operations.

Impact-NOI-4: Potential Exceedance of the City's Municipal Code Noise Standards at Existing Offsite Sensitive Receptors Due to Onsite Operations (City Program – Development Component). Mechanical equipment noise levels from the City Program – Development Component proposed hotel could exceed the nighttime limits of 45 dBA L_{eq} at nearby homes to the north and 60

dBA L_{eq} at the Best Western Hotel to the south. Mechanical equipment noise would also cause a nighttime ambient noise increase of 5 dB at the Best Western Hotel.

Impact-NOI-5: Potential Exceedance of the City's Municipal Code Noise Standards at Onsite Sensitive Receptors Due to Onsite Operations (GB Capital Component, Balanced Plan). Noise levels from the dry boat storage facility could exceed both the daytime and nighttime limits of 60 and 65 dBA L_{eq}, respectively, at the Phase 1 and Phase 2 RV resort at the GB Capital Component. Noise levels from events at the proposed Balanced Plan Pepper Park amphitheater could exceed nighttime limits of 60 dBA L_{eq} at GB Capital Component RV Resort Phase 1, Hotel #1, Hotel #2, and modular cabins. Noise from the amphitheater could also exceed the daytime limits of 65 dBA L_{eq} at the GB Capital Component RV Resort Phase 1, Hotel #1, and modular cabins.

Mitigation Measures

Construction

For **Impact-NOI-1**:

MM-NOI-1: Prohibit Exterior Construction Activities Outside of the Permitted Construction Hours (Balanced Plan, Bayshore Bikeway Component, City Program – Development Component, GB Capital Component, Pasha Road Closures Component). For the Balanced Plan, Bayshore Bikeway Component, City Program – Development Component, GB Capital Component, and Pasha Road Closures Component, the project proponent for that respective project component shall require their contractor(s) not to conduct exterior construction activities outside the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday. Material or equipment deliveries and collections shall also be prohibited outside of these hours. Except for construction personnel specifically working on interior construction tasks within a completed building shell, construction personnel shall not be permitted on the job site outside of the permitted hours.

MM-NOI-2: Avoid or Reduce Construction Noise from Pile Driving (City Program – Development Component, GB Capital Component). During all pile driving at the City Program – Development Component and GB Capital Component, the project proponent shall require its construction contractor to implement one of the following methods to reduce maximum pile-driving noise levels at the affected noise-sensitive receptors (residences on Cleveland Avenue, the National City Adult School, and Pepper Park) to 70 dBA L_{max} or less:

- Avoid impact pile driving by using quieter alternative installation methods, such as press-in piles or drilled piles (e.g., cast-in-drilled-hole, poured-in-place piles).
- Use an acoustical shroud around impact pile driving. The shroud shall be constructed of materials that provide a minimum sound transmission class (STC) of 28 (examples include sound-rated acoustical blankets).

MM-NOI-3: Avoid or Reduce Construction Noise from Other (Non-Pile-Driving) Construction Activities (Bayshore Bikeway Component, GB Capital Component, Pasha Road Closures Component). During all non-pile-driving construction activity at the Bayshore Bikeway Component, GB Capital Component, and the Pasha Road Closures Component, the project proponent shall require their construction contractor(s) to implement one of the

following methods to reduce maximum noise levels at the affected noise-sensitive receptors (residences on Cleveland Avenue and McKinley Avenue, and Pepper Park) to 70 dBA L_{max} or less:

- Avoid operating high impact demolition equipment (hydraulic breakers, jackhammers, concrete saws) within 520 feet of the any noise-sensitive receptors and avoid operating all other mechanized construction equipment within 280 feet of the affected noise-sensitive receptors.
- Where the above-specified distances cannot be maintained, install temporary noise barrier(s) between construction activities and the noise-sensitive receptor(s). Barriers may be constructed around the site perimeter or, when construction activities are restricted to a smaller portion of the site, around that smaller portion of the site, or around any noisy stationary construction equipment such as generators or dewatering pumps. All such barriers must be at least 8 feet high and of sufficient height to break the line-of-sight between the construction equipment and the ground floor of any noise-sensitive receptor. These barriers shall be constructed in one of the following ways that the project proponent establishes, in writing and to the satisfaction of the District, shall achieve a minimum sound transmission class (STC) rating of 28:
    - From acoustical blankets hung over or from a supporting frame. The blankets should be firmly secured to the framework. The blankets should be overlapped by at least 4 inches at seams and taped and/or closed with hook-and-loop fasteners (i.e., Velcro®) so that no gaps exist. The blankets shall be draped to the ground to eliminate any gaps at the base of the barrier.
    - From commercially available acoustical panels lined with sound-absorbing material (the sound-absorptive faces of the panels should face the construction equipment).
    - From common construction materials such as plywood.

Operation

For **Impact-NOI-2**:

MM-NOI-4: Design and Construct the Proposed Hotel at the City Program – Development Component Site to Achieve an Interior Noise Level of 45 dB CNEL or Less at Noise-Sensitive Occupied Spaces (City Program – Development Component). During the architectural and engineering design, prior to the issuance of any building permits for the hotel, the project proponent for the City Program – Development Component shall retain an acoustical consultant to ensure that the building design provides adequate noise insulation to achieve the City's interior noise standard of 45 dB CNEL, as specified in the National City General Plan Noise Element, at occupied spaces. If necessary, the consultant shall recommend design features such as, but not limited to, fresh-air supply systems (to allow windows to remain closed), sound-rated windows, or other façade upgrades. The project proponent shall submit a copy of the acoustical consultant's report, along with evidence that all recommended design features have been incorporated into the project design, to the City's Community Development Department for review and approval prior to hotel construction.

For **Impact-NOI-3**:

MM-NOI-5: Reduce Rail Noise Levels at the Proposed GB Capital RV Sites to 65 dB CNEL or Less (Pasha Rail Component, GB Capital Component). The project proponent for the GB Capital Component shall design its dry boat storage so that it is enclosed and made from solid material (versus fabric, chain link fencing or similar pervious/open materials) and shall submit a noise study conducted by an acoustical consultant that analyzes the noise from the Pasha Rail Improvement Component with the enclosed dry boat storage as a buffer, demonstrating the noise levels at the proposed RV park location. The noise study shall be submitted to the District's Development Services Department for its review 3 months after issuance of a Coastal Development Permit (CDP) for any phase of the GB Capital Component and prior to the construction of the RV park. The project proponent shall construct the dry boat storage as designed. If the noise study shows that the rail noise exposure at the proposed RV sites is at or below 65 dB CNEL, then no additional steps as specified in this mitigation measure shall be required.

If the noise study shows that noise levels are above 65 dB CNEL at the proposed RV sites, then prior to occupancy of the GB Capital RV Resort or operation of the Pasha Rail Improvement Component, whichever occurs last, a sound barrier shall be constructed to reduce the rail noise exposure at the proposed RV sites to 65 dB CNEL or less. The noise barrier shall be the equal (50/50) shared financial responsibility of the project proponents for the Pasha Rail Improvement Component and the GB Capital Component. In the event that both components are not constructed at the same time, the project proponent (Payee) of the component last constructed shall construct and pay for the entire specified noise control and the other project proponent (Reimbursee) shall reimburse the Payee 50% of the actual cost of designing, permitting, and constructing the noise control unless another payment arrangement is agreed upon between the project proponents and approved by the District. Such reimbursement shall be a condition of the CDPs for the Pasha Rail Improvement Component and the RV resort associated with the GB Capital Component. The noise barrier shall be constructed between the south side of the Pasha Rail Improvement Component and the GB Capital RV Resort. The barrier shall fully block the line-of-sight between the RV sites and a standard freight locomotive on the Pasha Rail Improvement Component site, and is anticipated to be a minimum barrier height of 16 feet relative to the finished track elevation. The barrier shall be a continuous structure without gaps or openings and shall extend from the north end of the Pasha Rail Improvement Component to Tidelands Avenue. The barrier shall be constructed of a solid material and, if necessary to meet the noise requirement, the density of 4 pounds per square foot (e.g., concrete block or concrete panels).

MM-NOI-6: Design and Construct the Hotels at the GB Capital Component to Achieve an Interior Noise Level of 45 dB CNEL or Less at Noise-Sensitive Occupied Spaces (GB Capital Component). During the architectural and engineering design, prior to the issuance of any building permits for the hotels, the project proponent for the GB Capital Component shall retain an acoustical consultant to ensure that the project design provides adequate noise insulation to achieve the City's interior noise standard of 45 dB CNEL, as specified in the National City General Plan Noise Element, at occupied spaces. If necessary, the consultant shall recommend design features such as, but not limited to, fresh-air supply systems (to allow windows to remain closed), sound-rated windows, or other façade upgrades. The project proponent shall submit a copy of the acoustical consultant's report, along with evidence that all recommended design

features have been incorporated into the project design, to the District's Development Services Department for review and approval prior to construction of any hotel.

For **Impact-NOI-4**:

MM-NOI-7: Design and Install All Onsite Mechanical Equipment at the City Program – Development Component Site to Comply with the City's Noise Ordinance (City Program – Development Component). During the architectural and engineering design phase, prior to the issuance of any building permits for the City Program – Development Component, the project proponent for the City Program – Development Component shall retain an acoustical consultant to evaluate the design and provide recommendations, as necessary, to ensure that all aspects of this project component, including mechanical equipment and other onsite stationary sources (e.g., trash compactors, loading docks), are designed and will be installed to comply with the City's Noise Ordinance (Municipal Code Chapter 12.06). Such recommendations may include, but are not limited to, changes in equipment locations; sound power limits or specifications; rooftop parapet walls; acoustic absorption materials, louvers, screens, or enclosures; or intake and exhaust silencers. The project proponent shall submit a copy of the acoustical consultant's report, along with evidence that all recommended design features have been incorporated into the project design, to the City's Community Development Department for review and approval prior to hotel construction.

For **Impact-NOI-5**:

MM-NOI-8: Design and Operate the Proposed Dry Boat Storage Facility to Comply with the City's Noise Ordinance at the Adjacent Proposed RV Resort (GB Capital Component). During the architectural and engineering design phase for the dry boat storage facility, prior to the issuance of any building permits for such, the project proponent for the GB Capital Component shall retain an acoustical consultant to evaluate the design and provide recommendations, as necessary, to ensure that operation of the dry boat storage facility will comply with the City's Noise Ordinance (Municipal Code Chapter 12.06.020) at the adjacent RV sites during the sensitive evening and nighttime hours of 7:00 p.m. to 7:00 a.m. (i.e., 65 dBA L_{eq} between 7 p.m. and 10 p.m., and 60 dBA L_{eq} between 10 p.m. and 7 a.m.). Noise control techniques may include, but are not limited to, restricting hours of operation to daytime hours (7:00 a.m. to 7:00 p.m.), selecting quieter equipment (when commercially available), or installing additional noise barriers to screen the facility from the RV resort. The project proponent shall submit a copy of the acoustical consultant's report, along with evidence that all design features have been incorporated into the project design (to ensure that operation of the dry boat storage facility would comply with the City Noise Ordinance at the adjacent RV sites during the sensitive evening and nighttime hours), to the District's Development Services Department for review and approval prior to commencement of construction of the dry boat storage facility. The project proponent shall implement the noise control techniques.

MM-NOI-9: Regulate Organized Events at Pepper Park, Including Use of the Proposed Amphitheater (Balanced Plan). Organized events at Pepper Park shall be properly regulated for noise control. Per Section 8.02 of the District's Port Code, any event with over 25 attendees shall obtain a permit from the District. As further stipulated by Section 8.02 of the Port Code, each "permit shall be subject to the requirements regarding noise…as contained in the Municipal Code of the particular City in which the park is located." Therefore, any event for which noise generating activities will occur at the amphitheater will be subject to the City's Noise Ordinance.

Although the City's Noise Ordinance indicates that daytime and nighttime noise standards would be 65 and 60 dBA $L_{eq}(h)$, respectively, at the GB Capital Component visitor accommodations (RV resort and hotels), the City's Noise Ordinance also includes exceptions for these noise standards; the exceptions are on a case-by-case basis and include temporary noise exceedances for organized events (e.g., parades, concerts). Further, as part of the District's permitting process for organized events that are proposed to have amplified sounds (e.g., concerts), the District shall coordinate with the City, and if the City requires a maximum decibel level limit or hours in which all noise needs to cease, that information shall be added to the District permit for that organized event. In addition, the District shall coordinate notification to adjacent tenants of upcoming organized large events, and the permittee of the organized event shall coordinate with the same tenants within 2 weeks of the organized event.

Level of Significance After Mitigation

Construction

Implementation of **MM-NOI-1**, **MM-NOI-2**, and **MM-NOI-3** would reduce **Impact-NOI-1**. However, it may not be possible to fully reduce all construction noise levels to comply with the noise limits specified in the City's Noise Ordinance (Municipal Code Section 12.10.160). Limitations may include the inability to use alternative pile-driving methods or acoustical shrouds due to engineering, constructability, or safety considerations; the need to operate construction equipment in proximity to noise-sensitive receptors; or the inability to construct efficient temporary noise barriers due to local terrain conditions, or engineering, constructability, or safety considerations. As a result, construction noise impacts would remain significant and unavoidable.

Operation

Implementation of **MM-NOI-4** would reduce **Impact-NOI-2** to less than significant because the measure would ensure that development at the City Program – Development Component site would be designed and constructed to control exterior-to-interior noise that could affect sensitive occupied spaces. As a result, interior noise levels would comply with the interior noise standards specified in the National City General Plan Noise Element (i.e., 45 dB CNEL at sensitive interior spaces).

Implementation of s **MM-NOI-5** and **MM-NOI-6** would reduce **Impact-NOI-3** to less than significant because **MM-NOI-5** would provide a noise barrier (either through the dry-boat storage or construction of a new barrier) to reduce the existing and proposed rail noise exposure at the proposed GB Capital Component RV sites to 65 dB CNEL or less for compliance with the City's exterior noise compatibility guidelines, as specified in the National City General Plan Noise Element. Implementation of **MM-NOI-6** would ensure GB Capital Component hotels would be designed and constructed so as to control exterior-to-interior noise that could affect sensitive occupied spaces. As a result, interior noise levels would be in compliance with the interior noise standards specified in the National City General Plan Noise Element (i.e., 45 dB CNEL at sensitive interior spaces).

Implementation of **MM-NOI-7** would reduce **Impact-NOI-4** to less than significant because the measure would ensure that development at the City Program – Development Component would be designed and constructed so that noise from onsite mechanical equipment and other onsite stationary sources would comply with the City's Noise Ordinance (Municipal Code Section 12.06.020).

Implementation of **MM-NOI-8** and **MM-NOI-9** would reduce **Impact-NOI-5**. It is possible that full implementation of **MM-NOI-8** would not be feasible. Various factors could make it infeasible to reduce noise from the GB Capital Component dry boat storage facility to fully comply with the City's Noise Ordinance (Municipal Code Chapter 12.06) at the adjacent RV sites. Such factors include the type of mechanical equipment required to lift and transport boats, the desired hours of operation (including the sensitive evening and nighttime hours), the proximity to the RV sites, and the difficulty in providing effective shielding given the height of the storage structure and the southerly access to the facility from Marina Way (i.e., all storage access would occur from the side closest to the RV sites). Mitigation measure **MM-NOI-9** would ensure that events at Pepper Park would be conducted in compliance with local requirements. This includes obtaining and complying with the terms of an applicable event permit granted by the District and coordination with the City and adjacent tenants. Therefore, potential noise impacts associated with operation of Pepper Park would be reduced to less than significant with implementation of **MM-NOI-9**. However, given the uncertainty associated with implementing adequate noise control, **Impact-NOI-5** would remain potentially significant and unavoidable with respect to noise from the dry boat storage facility.

Threshold 2: Implementation of the proposed project would generate excessive groundborne vibration or groundborne noise levels.

Impact Discussion

Construction

As discussed previously, groundborne vibration can cause two types of impact: (1) damage to structures and (2) annoyance to people. Damage to a structure can occur regardless of the use of a specific building; therefore, this potential impact is assessed at each of the closest buildings but is not assessed at any land uses that do not include buildings (such as parks). Annoyance to people is assessed only at land uses with vibration-sensitive buildings.

The details of the construction-generated groundborne vibration analyses are included in Appendix J. The results are summarized in Table 4.10-18, which includes the applicable vibration threshold(s) for potential building damage and human response at each receptor. Vibration levels that exceed the indicated threshold(s) are indicated in the table with an asterisk. Significant impacts related to building damage could occur at the Waterfront Grill at Pier 32 Marina (**Impact-NOI-6**) due to pile driving during construction of the GB Capital Component (Hotel #3), and mitigation measure **MM-NOI-10** would be required to avoid potential damage. Significant impacts related to human response (annoyance) could occur at residences within approximately 130 feet of the Bayshore Bikeway Route 1, 2, or 3, including single-family residences or apartments on Cleveland Avenue or McKinley Avenue between West 14th Street and West 23rd Street, due to the anticipated proximity of hydraulic breakers, vibratory rollers, and heavy earthmoving equipment during construction (**Impact-NOI-6**). Mitigation measure **MM-NOI-11** would be required to eliminate distinctly perceptible vibration levels in excess of 0.04 in/sec. Given the linear nature of the proposed bikeway, the highest vibration levels at any individual receptor are anticipated to occur for a relatively short period only, and vibration levels would decrease rapidly as construction moves away along the alignment. Therefore, vibration levels associated with bikeway construction would remain well below the perceptible range for most of the project construction period.

Building damage impacts would be less than significant for groundborne vibration from construction of all project components except the GB Capital Component. Human annoyance impacts would be less than significant for groundborne vibration from construction of all project components except the Bayshore Bikeway Component.

Table 4.10-18. Estimated Construction Vibration Levels at Closest Receptors

	R2: SFR – Cleveland Avenue	R3: Office on Cleveland Avenue	R4: National City Depot Museum	R6: National City Adult School	R7: Best Western Hotel	R8: Goodies Bar and Grill	R11: Waterfront Grill at Pier 32 Marina
Impact Criteria, PPV, in/sec							
Potential Building Damage[1]	0.3	0.5	0.25	0.5	0.5	0.5	0.5
Human Annoyance[2]	0.04	N/A[5]	N/A[4]	0.04	N/A[3]	N/A[5]	N/A[5]
Estimated Vibration Levels, PPV, in/sec							
City Program – Development Component							
Pile Driving	0.03	0.13	0.11	0.02	0.08	0.07	< 0.01
Hydraulic Breaker	0.01	0.05	0.04	0.01	0.03	0.03	< 0.01
Vibratory Roller	0.01	0.04	0.03	0.01	0.03	0.02	< 0.01
Heavy Earthmoving Equipment	< 0.01	0.02	0.01	< 0.01	0.01	0.01	< 0.01
Jackhammer	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Significant?	No	No	No	No	No	No	No
Bayshore Bikeway Component							
Hydraulic Breaker	**0.14***	0.08	0.06	0.01	0.11	0.10	0.04
Vibratory Roller	**0.13***	0.07	0.05	0.01	0.10	0.09	< 0.01
Heavy Earthmoving Equipment	**0.05***	0.03	0.02	< 0.01	0.04	0.04	< 0.01
Jackhammer	0.02	0.01	< 0.01	< 0.01	0.02	0.01	0.01
Significant?	**Yes** (potential annoyance)	No	No	No	No	No	No
GB Capital Component							
Pile Driving	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.65***
Hydraulic Breaker	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.24
Vibratory Roller	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.21
Heavy Earthmoving Equipment	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.09
Jackhammer	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.04

	R2: SFR – Cleveland Avenue	R3: Office on Cleveland Avenue	R4: National City Depot Museum	R6: National City Adult School	R7: Best Western Hotel	R8: Goodies Bar and Grill	R11: Waterfront Grill at Pier 32 Marina
Significant?	No	No	No	No	No	No	**Yes** (potential damage)

[1.] All thresholds based on Caltrans' guidelines for vibration damage from continuous/frequent intermittent sources. Value of 0.25 in/sec based on threshold for "historic and some old buildings," value of 0.3 in/sec based on threshold for "older residential structures," and value of 0.5 in/sec based on threshold for "modern industrial/commercial buildings."
[2.] All thresholds based on Caltrans' guidelines for vibration annoyance/interference from continuous/frequent intermittent sources. Value of 0.04 in/sec is based on the "distinctly perceptible" criterion.
[3.] Not applicable because hotels are not considered sensitive during the daytime hours when construction would occur.
[4.] Not applicable because the museum is open to the public only during the weekend (outside of construction hours).
[5.] Not applicable because commercial buildings are not considered vibration sensitive with respect to potential annoyance.
* = Exceeds applicable vibration threshold for human annoyance and/or potential building damage (the specific impact type is noted in the table).
PPV = peak particle velocity; in/sec = inches per second; N/A = not applicable

Operation

The only substantial source of groundborne vibration from project operation would be the trains on the new connector track. However, because of the very low speeds (10 mph) and distance between the new track and the closest sensitive receptors (150 feet or more), vibration levels would be very low. Calculation algorithms from the FTA *General Vibration Assessment* (FTA 2018) indicate an approximate vibration level of 60 VdB, which would be well below the most stringent FTA guideline of 72 VdB for nighttime vibration at locations where people are trying to sleep. Therefore, the impact would be less than significant with respect to rail operations.

Aside from the rail component, the project would not include any major permanent sources of vibration. The mechanical equipment that could be installed at individual project elements would cause some localized vibration that might be perceptible at close range (e.g., within the same building), but there would be no perceptible vibration at other properties. The impact would be less than significant at all project components.

Level of Significance Prior to Mitigation

Construction

Construction of the proposed project would generate excessive groundborne vibration or groundborne noise levels. Potentially significant impacts include:

Impact-NOI-6: Exceedance of Caltrans Guideline Criteria for Potential Building Damage During Project Construction (GB Capital Component). Vibration levels due to pile driving could exceed 0.5 in/sec at the closest structure (Waterfront Grill at the Pier 32 Marina) during construction of Hotel #3 at the GB Capital Component. This impact would occur if pile driving is conducted within 32 feet of the existing structure.

Impact-NOI-7: Exceedance of Caltrans Guideline Criteria for Potential Human Annoyance During Project Construction (Bayshore Bikeway Component). Vibration levels due to vibratory rollers (compactors) or heavy earthmoving equipment could exceed 0.04 in/sec at the closest residential structures during construction of the proposed Bayshore Bikeway. This impact would occur if hydraulic breakers are used within approximately 130 feet of residences, vibratory rollers are used within approximately 115 feet of residences, or heavy earthmoving equipment is used within approximately 55 feet of residences.

Mitigation Measures

Construction

For **Impact-NOI-6**:

> **MM-NOI-10: Avoid or Reduce Groundborne Vibration from Pile Driving (GB Capital Component).** Where feasible, the project proponent for the GB Capital Component shall require its construction contractor(s) to avoid pile driving within a 32-foot buffer zone of existing buildings at the Pier 32 Marina. If piling cannot be avoided within this distance, the following shall be implemented:
>
> - Alternative installation methods shall be used, such as press-in piles or drilled piles (e.g., cast-in-drilled-hole, poured-in-place piles).

- The following steps shall be taken to protect buildings within 32 feet of pile-driving locations:
    - The project proponent/contractor shall retain a qualified structural or geotechnical engineer to conduct preconstruction surveys of neighboring structures (including photographing and/or videotaping) to document existing building conditions for future comparison if any vibration-related damage is suspected or results from construction-related activities; and
    - Based on review of the specific buildings involved, the structural/geotechnical engineer may provide updated vibration thresholds and buffer distances for potentially affected buildings; and
    - Monitoring shall be conducted during construction to check for vibration-related damage during pile driving; such monitoring shall include vibration measurements obtained inside or outside of the buildings or other tests and observations deemed necessary; and
    - The person(s) conducting the monitoring shall have the authority to issue a stop work order to the pile-driving contractor if excessive vibration levels are measured or other observations occur that indicate potential building damage may occur; in the event of such an occurrence, the monitor shall notify the project proponent (GB Capital) and the District; and
    - If any damage to existing buildings is determined to occur as a result of pile driving at the GB Capital Component, the project proponent shall be financially responsible for the necessary repairs, structural or cosmetic, to return the damaged building to its pre-existing state.

For **Impact-NOI-7**:

MM-NOI-11: Avoid or Reduce Groundborne Vibration from Bikeway Construction (Bayshore Bikeway Component). During all construction activity at the Bayshore Bikeway Component, the project proponent shall require its construction contractor(s) to observe the following buffer zones to reduce groundborne vibration at nearby at nearby residences to 0.04 in/sec or less:

- Avoid the use of hydraulic breakers within 130 feet of residential buildings.
- Avoid vibratory compaction within 115 feet of residential buildings.
- Avoid the use of heavy earthmoving equipment within 55 feet of residential buildings.

If the listed buffer distances cannot be maintained, impacts can be reduced to less than significant by using alternative equipment that avoids or reduces high vibration levels at the source. Jackhammers (manually held and operated, not mounted to any other construction equipment) may be used in place of other breakers, non-vibratory rollers may be used in place of vibratory roller, and smaller earthmovers (Bobcat, skid steer, etc.) may be used instead of full size heavy earthmoving equipment.

Level of Significance After Mitigation

Construction

Implementation of **MM-NOI-10** would reduce **Impact-NOI-6** to less than significant because the measure would ensure that buildings located close to proposed pile driving would be protected from potential damage or repaired if any cosmetic or structural damage was to occur.

Implementation of **MM-NOI-11** would reduce **Impact-NOI-7** to less than significant because the measure would ensure an adequate buffer zone between vibration-generating construction equipment and residential buildings, or would substitute alternative equipment that generates lower levels of groundborne vibration.

Operation

Impacts would be less than significant.

Section 4.11
Population and Employment

4.11.1 Overview

This section describes the existing conditions and applicable laws and regulations for population and employment conditions in the City and within the District's jurisdiction, followed by an analysis of the proposed project's potential to induce substantial population growth in an area, either directly or indirectly, where such population growth would lead to significant physical impacts on the environment. Other population and housing-related issues, including impacts related to displacement of people and existing housing, were analyzed in Section XIII of the project's Initial Study/Environmental Checklist (Appendix A) and determined not to be significant. The analysis and conclusions regarding these impacts are included in Chapter 6, Section 6.4, *Effects Not Found to be Significant*.

Based on the analysis that follows, all impacts related to population and employment would be less than significant. No mitigation is required.

4.11.2 Existing Conditions

The following section describes the existing and projected population and employment opportunities within National City and Planning District 5 – National City Bayfront in the Precise Plan for the PMP.

4.11.2.1 Population

The majority of the District's jurisdiction falls within or adjacent to developed and highly urbanized areas within the City of San Diego (such as downtown San Diego) and the cities of Coronado, Chula Vista, Imperial Beach, and National City.

The San Diego Association of Governments (SANDAG) is the principal land use and transportation-planning agency for the San Diego region. As part of its planning efforts, SANDAG produces growth forecasts of population, housing, employment, income, and land use in the San Diego region. On October 15, 2013, the SANDAG Board of Directors adopted the Series 13: 2050 Regional Growth Forecast for planning purposes. Based on SANDAG's projections and the findings in the most recent U.S. Census, the San Diego regional population is forecasted to increase from 3,095,313 persons in 2010 (U.S. Census Bureau 2010) to 4,068,759 persons in 2050 (SANDAG 2013)—an increase of 24 percent. Table 4.11-1 provides a breakdown of existing and projected regional population and population within the City and adjacent cities.

Table 4.11-1. Existing and Projected Population by Jurisdiction (City of National City and Adjacent Cities)

Jurisdiction	2010 Population (Census)	2020 Population	2035 Population	2050 Population
National City	58,582	62,342	73,329	85,121
Chula Vista	243,916	287,173	326,625	345,586
San Diego (City)	1,301,617	1,453,267	1,665,609	1,777,936
San Diego Region	3,095,313	3,435,713	3,853,698	4,068,759

Source: U.S. Census Bureau 2010, SANDAG 2013.

4.11.2.2 Employment

The State of California Employment Development Department's (EDD) is responsible for state programs involving job service, unemployment insurance, state disability insurance, workforce investment, and labor market information. The EDD's Labor Market Information Division collects, analyzes, and publishes information about California's labor markets, including employment and unemployment data. According to the EDD's monthly labor force data, as of August 2019, the San Diego County area had an unemployment rate of 3.4 percent and an available labor force of 1,596,900 persons (EDD 2019).

In addition, SANDAG produces employment forecasts for the San Diego region, including the region's 18 municipalities. Based on SANDAG's projections, employment in the region is forecasted to increase from 1,450,913 employment opportunities in 2012 to 1,911,405 employment opportunities in 2050, a 20 percent increase. SANDAG's *San Diego Forward: The Regional Plan* (Regional Plan) projects centers of employment will continue to expand through 2050. For example, according to the Regional Plan, downtown San Diego is projected to add 30,000 employment opportunities by 2050 (SANDAG 2015). Table 4.11-2 provides a breakdown of existing (2012) and projected regional employment and employment for the City.

Table 4.11-2. Existing and Projected Employment by Jurisdiction (City of National City and Adjacent Cities)

Jurisdiction	2012 Employment (Jobs) [1,2]	2020 Employment (Jobs)[1,2]	2035 Employment (Jobs)[1,2]	2050 Employment (Jobs)[1,2]
National City	27,373	30,287	32,817	39,839
Chula Vista	65,340	82,953	99,599	114,550
San Diego (City)	780,252	867,641	933,938	1,008,793
San Diego Region	1,450,913	1,624,124	1,769,938	1,911,405

Source: SANDAG 2013.
[1] Includes both military and civilian jobs, where applicable.
[2] Projections for civilian jobs are based on developed employment acre (i.e., industrial, retail, office, schools, and half of mixed use acres).

Employment opportunities in the project area include jobs in the hospitality, retail, commercial, and industrial sectors. Commercial recreation activities provide full and part-time employment opportunities in construction, warehousing, trucking, custodial, and personal services, all of which contribute to the region's economic base (District 2020).

4.11.3 Applicable Laws and Regulations

4.11.3.1 State

California Public Trust Doctrine

The Public Trust Doctrine is a common law doctrine that provides that public lands and waters are held by the state or its delegated trustee (i.e., the California State Lands Commission [CSLC]) for the benefit of all people. All tide and submerged lands, granted or ungranted, as well as navigable rivers, sloughs, and other waterbodies, are governed by the Public Trust. The Public Trust Doctrine, as overseen by the CSLC, restricts the type of land uses allowed on public lands, including District tidelands. The Public Trust Doctrine limits the uses of sovereign lands to waterborne commerce, navigation, fisheries, open space, water-oriented recreation, ecological habitat protection, or other recognized Public Trust purposes. As such, no residential uses are present within the District's jurisdiction, because they are not considered an allowed use under the Public Trust Doctrine.

Port Act

The Port Act (Appendix 1 of the California Harbor and Navigation Code) was adopted in 1962. Through the Port Act, the State of California delegated its authority to the District to manage and control certain tidelands and submerged waters. Specifically, the District was established for the development, operation, maintenance, control, regulation, and management of the tidelands and lands underlying the inland navigable waters of San Diego Bay. Under the Port Act, the District was granted broad police powers. The Port Act requires the District to exercise its land management authority and powers over (1) the tidelands and submerged lands granted to the District and (2) any other lands conveyed to the District by any city or the County of San Diego or acquired by the District. The Port Act grants the District exclusive police power over property and development subject to its jurisdiction. A PMP is required by the Port Act, which must specify the land and water uses within the District's jurisdiction.

California Coastal Act

The state legislature enacted the California Coastal Act (CCA) of 1976 (PRC § 30000 *et seq.*) as a comprehensive scheme to govern land-use planning for the entire coastal zone of California. A combination of local land use planning procedures and enforcement to achieve maximum responsiveness to local conditions, accountability, and public accessibility, as well as continued state coastal planning and management through the California Coastal Commission (CCC), is relied on to ensure conformity with the provisions of the act (§§ 30004 (a) and (b)). CCA Chapter 8, Article 3, establishes a framework for ports, including the Port of San Diego, to develop a PMP by which to designate land and water uses and issue individual coastal development permits within their jurisdictions. Individual PMPs require CCC review and certification, including any amendments to the certified PMP. The CCC must certify a PMP or PMPA if it finds that the PMP or PMPA meets the requirements of, and is in conformity with, the CCA. Additionally, Chapter 3 of the CCA, *Coastal Resources Planning and Management Policies*, provides broad statewide policies for public access to information about the coast, recreation, marine environment, land resources, development, and sea-level rise.

4.11.3.2 Regional

San Diego Association of Government's San Diego Forward: The Regional Plan

SANDAG is the San Diego region's primary public planning, transportation, and research agency, providing the public forum for regional policy decisions about growth and planning in the San Diego region. In 2015, SANDAG adopted the Regional Plan, which includes an implementation program for growth within the San Diego region through 2050. The Regional Plan is built on an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system. Furthermore, the Regional Plan, including its Sustainable Communities Strategy (SCS), commits to reducing emissions from transportation sources to comply with Senate Bill 375, improving public health, and meeting the National Ambient Air Quality Standards. The SCS envisions reducing greenhouse gas emissions through strategies such as focusing on housing and job growth in urbanized areas where there is existing and planned transportation infrastructure, employing smart-growth land use policies, investing in a transportation network, addressing the housing needs of all economic segments or the population, and implementing the Regional Plan through incentives and collaboration (SANDAG 2015).

4.11.4 Project Impact Analysis

4.11.4.1 Methodology

This section analyzes the potential environmental impacts associated with unplanned population and employment growth that could occur under the proposed project. The impact analysis considers whether the proposed project would result in unplanned population growth, primarily through the provision of new jobs that would consequently require the construction of new infrastructure (e.g., new roads, utilities) or other improvements to accommodate growth.

Potential direct impacts would be determined by identifying proposed land use development that could generate jobs and determining whether these jobs would induce unplanned growth in the San Diego region that could trigger further development to accommodate the growth. Potential indirect impacts would be determined by identifying whether the proposed project would result in the extension of infrastructure into areas where none currently exists and whether this extension would induce unplanned growth in the San Diego region. If required, the analysis determines whether the physical construction of these new facilities would result in a significant impact on the environment and if mitigation is necessary to reduce significant impacts. It should be noted that the Port Act prohibits residential development on District tidelands; therefore, no residential uses are proposed under the project. Further, although residential uses are allowed in the City's jurisdiction, no residential uses are proposed as part of the proposed project.

4.11.4.2 Thresholds of Significance

The following significance criteria are based on Appendix G of the State CEQA Guidelines and provide the basis for determining significance of impacts associated with population and employment resulting from the proposed project. The determination of whether a population and

employment impact would be significant is based on the professional judgment of the District as Lead Agency based on the evidence in the administrative record.

Impacts are considered significant if the proposed project would:

1. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure).

Population-related issues that were addressed in Section XIII of the Initial Study/Environmental Checklist (Appendix A) and determined to be less than significant include impacts associated with the displacement of substantial numbers of existing housing and people, necessitating the construction of replacement housing elsewhere. The analysis and conclusions regarding these impacts are summarized in Section 6.4, *Effects Not Found to Be Significant*, in Chapter 6, *Additional Consequences of Project Implementation*.

4.11.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would not induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure).

Impact Discussion

The proposed project would not extend, or create the need for, infrastructure expansion into previously undeveloped areas. The project site currently is served by existing roadways, water, wastewater, gas, and electrical infrastructure. Land uses that surround the project site are also served by existing utilities. The proposed project would not involve the addition of any growth-inducing infrastructure, including water and gas lines or electricity, into previously undeveloped areas, because the project site is within a developed area.

Construction

Construction of the proposed project would require the addition of new employees and temporarily would increase the number of construction workers in the area. Construction of the proposed project is anticipated to require a maximum of approximately 211 construction workers on the project site. However, additional jobs would not increase the population because construction employees are anticipated to be drawn from existing residents of the San Diego region, the population of which will also be growing consistent with the population growth projections provided in SANDAG's Regional Plan. Therefore, construction of the proposed project would have a less-than-significant impact on the inducement of unplanned population and employment growth.

Operation

Future permanent employment opportunities resulting from the proposed project would include jobs in hospitality, retail, and other commercial businesses. Industrial uses within the project area support cargo and goods movement and other similar maritime-related industries and businesses. Operation of the proposed project would occur through configuration modifications to eliminate

impediments, such as alterations to existing roads to improve cargo and transportation efficiencies of existing maritime industrial uses associated with operations at the National City Marine Terminal (NCMT). As described in Chapter 3, *Project Description*, the proposed project would not increase the throughput potential of Pasha's marine terminal operations above what was analyzed in the NCMT Tank Farm Paving and Street Closures Project and Port Master Plan Amendment EIR (District 2016). Given that employment opportunities associated with marine terminal-related operations are a function of throughput potential, these modifications would not result in additional employment opportunities above what was already analyzed in the NCMT Tank Farm Paving and Street Closures Project and PMPA EIR. Operation of visitor-serving uses, including the proposed hotels, restaurant, and retail, would occur under the proposed project and create new sources of employment. It is anticipated that the GB Capital Component would have up to 332 employees on buildout of Phase 2, and the City Program – Development Component would have up to 105 employees on buildout. Although implementation of the proposed project would require additional employees, the additional jobs are expected to be filled primarily by existing local and regional residents and would not induce substantial population growth. The jobs are not anticipated to result in the relocation of any people. Therefore, operation of the proposed project would not induce substantial population growth directly or indirectly in the San Diego region. As such, impacts would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not induce population or employment growth directly or indirectly in the area through extension of roads or other infrastructure. Construction of the proposed project would temporarily increase the number of construction workers in the area; however, residents currently living in the San Diego region are anticipated to fill additional jobs. Operation of the proposed project would result in additional job opportunities; however, the introduction of additional employees would not result in a significant increase in the local population, nor induce substantial population growth. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Section 4.12
Public Services and Recreation

4.12.1 Overview

This section describes the existing public services and recreational facilities that could be adversely affected by the proposed project and the applicable laws and regulations related to public services and recreational facilities. The section concludes with an analysis of the proposed project's effects associated with (1) fire and emergency facilities, (2) police facilities, (3) school facilities, (4) park facilities, (5) existing recreational amenities, (6) and new or expanded recreational facilities.

The applicable fire, emergency, and police responders were sent a project description and questionnaire to determine if anything unique to the proposed project would significantly affect the respective provider's ability to provide services and lead to a need to construct new or expanded facilities.

Based on the analysis that follows, all impacts related to public services and recreation would be less than significant. No mitigation is required.

4.12.2 Existing Conditions

4.12.2.1 Fire Protection and Emergency Response

The National City Fire Department (NCFD) and fireboats operated by the San Diego Harbor Police Department (HPD) provide fire protection services to the project site.

National City Fire Department

The NCFD service area covers 9 square miles and serves a population of approximately 63,000 people, while also protecting the Lower Sweetwater Fire Protection District, the Port of San Diego, and Navy Base San Diego. NCFD has three divisions: Fire Administration, Fire Prevention, and Fire Operations (NCFD 2018a). The administration office is at 1243 National City Boulevard. NCFD has three fire stations and employs approximately 39 full-time sworn personnel including three battalion chiefs, nine captains, nine engineers, and 18 firefighters (NCFD 2018b).

Three NCFD fire operations stations are in the project vicinity and would respond in an emergency:

- Station 34 at 343 East 16th Street, National City, approximately 0.66 mile east of the project site
- Station 31 at 2333 Euclid Avenue, National City, approximately 1.96 miles northeast of the project site
- Station 33 at 2005 East 4th Street, National City, approximately 2.08 miles northeast of the project site

Station 34 is the primary responding unit for the project site and has one fire engine, one fire truck, one ambulance, and one battalion chief vehicle. Three to four personnel are needed to operate the

fire engine, four the fire truck, two the ambulance, and one the battalion chief vehicle (Hernandez pers. comm.). The difference between a fire engine and a fire truck is that an engine is the primary piece of fire apparatus for carrying personnel, water, hoses, and pumping equipment, while trucks carry equipment and ladders, but do not have water tanks.

NCFD uses the National Fire Protection Association (NFPA) 1710 Standard for the Organization and Deployment of Fire Suppression Operations to determine adequate response times. The "best practice" initial response time is a 6-minute response time 90% of the time. Actual number of staff deployed during a response depends on the type of incident. In most cases, the minimum response would be a fire engine with a minimum of three to four personnel. The current response time from Station 34 to the project site is approximately 6 minutes. From Station 31, response time would be approximately 11 minutes (Hernandez pers. comm.).

Harbor Police Department

HPD provides law enforcement and marine firefighting services in and around San Diego Bay for the District. Specifically, HPD's jurisdiction includes all tidelands extending through five member cities: San Diego, Chula Vista, Coronado, Imperial Beach, and National City. The police headquarters and administration building is at 3380 North Harbor Drive. Substations are at 1401 Shelter Island (Police Dock), "J" Street in Chula Vista (South Bay), and San Diego International Airport at Lindbergh Field. HPD has 140 sworn officers, all trained as firefighters and police officers (District 2019). HPD is composed of the following departments as they pertain to fire protection and emergency response.

- **Marine Firefighting:** Marine firefighter officers with HPD are unique because they are cross-trained as both land- and marine-based firefighters. The patrol boats also serve as firefighting boats that respond to fire emergencies in the Bay. Each officer is highly trained and fully equipped with firefighting equipment, and each boat includes a water cannon capable of shooting a stream of water several hundred feet. The fireboats can handle small electrical fires or a large vessel engulfed in flame by containing the fire, knocking it down, rescuing trapped victims, and protecting adjacent vessels in a marina. The fireboats can be cooperatively used with NCFD if necessary.
- **Vessel Patrol:** HPD's vessel patrol consists of four officers who patrol San Diego Bay aboard two separate fireboats. Each boat consists of a two-person crew. These vessels are staffed 24 hours a day, in all types of weather. The primary function is being able to respond to all types of law enforcement–related issues. Additionally, part of the fleet is designed for response to any fire and rescue–related calls. HPD's vessel patrol includes three fireboats on standby at the Shelter Island Substation, and five FAST RESPONSE vessels for varying environments and public safety responses (Banuelos pers. comm.).

4.12.2.2 Police Protection

HPD and the National City Police Department (NCPD) both provide police protection services to the project site.

National City Police Department

NCPD is headquartered at 1200 National City Boulevard and has a total of 87 positions budgeted. The Patrol Division of the NCPD would be the primary responders for the project. The Patrol

Division is composed of six patrol squads with two Watch Commanders (Lieutenants), seven Patrol Sergeants, 38 Corporals/Police Officers, two Community Service Officers, and two Animal Regulation Officers. Officers are deployed over three shifts: day, swing, and graveyard. The number of deployed officers on various shifts is based on the volume and types of calls for service received, in comparison with the hours of the day, and days of the week. Currently, the city-wide officer-to-resident ratio goal is two officers per 1,000 residents (Tellez pers. comm.).

Like NCFD and HPD, the quality of NCPD police protection services is evaluated by the average response time to an emergency call. Table 4.12-2 shows NCPD's standards for determining adequate response times and recent actual response times. As shown, with the exception of Priority 1 calls, all call type priorities are within NCPD's response time standards.

Table 4.12-2. National City Police Department Response Time Standards and Actual Response Times

Call Type	Description	Standard (minutes)	Actual (minutes)
Priority 1 – Emergency	Imminent threat to life	5	5:11
Priority 2 – Urgent	Serious crimes in progress	10	8:54
Priority 3 – Serious	Less serious, non–life-threatening crimes	30	21:02
Priority 4 – Non-Urgent	Minor crimes/non-urgent requests	60	30:41
Priority 5 – Self-Initiated	Minor requests for police service	No time	4:44

Sources: City of National City 2012; Tellez pers. comm.

Harbor Police Department

In addition to providing marine-based firefighting services, HPD is the law enforcement authority for the District and provides public safety services for the project site. HPD monitors all activity within the District and includes the following departments.[1]

- **Traffic Enforcement:** HPD provides police protection services throughout the District's jurisdiction. The Traffic Enforcement Team specializes in enforcing traffic regulations and investigating traffic collisions.
- **Dive Team:** The Dive Team is trained in search and rescue, evidence and body recovery, underwater explosive detection, vehicle recovery, and many other surface and underwater capabilities. The Dive Team has two sergeants who supervise a 22-member team. All members are able to be called in for any water emergency, around the clock.
- **Investigations and Intelligence Unit:** The Investigations and Intelligence Unit is a specialized task force that conducts follow-up investigations on arrests and crime reports (District 2019).

The adequacy of HPD's services is measured by average response time to an emergency call, which indicates the amount of time it takes for HPD services to arrive at the scene of the emergency. HPD measures response times based on First or Second Priority for emergency services for vehicles or

[1] The Airport Foot Patrol, Airport Vehicle Patrol, and K-9 Unit provide police protection services to the San Diego International Airport and are not expected to serve the proposed project site.

vessels within San Diego Bay. As shown in Table 4.12-3, HPD's response time standard is to dispatch within 1 minute; however, response times vary.

Table 4.12-3. Harbor Police Department Response Time Standards and Actual Response Times

Call Type	Location	Standard (minutes)	Actual (minutes)[1]
First Priority	Vehicle	Dispatched within 1 minute	Response times vary
	Vessel	Dispatched within 1 minute	Response times vary

Source: Banuelos pers. comm.
[1] Based on personal communications with all police departments servicing the project site, all police departments use the term "standard" to describe response times.

4.12.2.3 Public Schools

The project site is within the boundary of the National School District, which comprises 10 public schools offering grades Kindergarten–6. For grades 7–12, the project site is within the boundary of the Sweetwater Union High School District, which has four campuses within National City.

There are six public schools within 2 miles of the project site that are part of the National School District and Sweetwater Union High School District. Beginning with the closest, these are Kimball Elementary School 0.2 mile to the east, National City Middle School 0.75 mile to the east, Sweetwater High School 0.8 mile to the east, Olivewood School 0.84 mile to the east, John A Otis Elementary School 0.85 mile to the east, and Las Palmas Elementary School 1.6 miles to the east.

Other public schools within 2 miles of the project site are the Silver Strand Elementary School, which is part of the Coronado Unified School District; Mae L Feaster Elementary School, Rosebank Elementary School, and Vista Square Elementary School, which are part of the Chula Vista Elementary School District; and Chula Vista Middle School, which is part of the Sweetwater Union High School District.

4.12.2.4 Parks and Recreational Facilities

The proposed project is in an area that provides public and commercial recreational opportunities as indicated on Figure 4.9-1, which shows the PMP's National City Planning District Precise Plan. Land and water use allocation within the National City Planning District is primarily Industrial and Military.

Pepper Park encompasses approximately 5.2 acres. Existing amenities include a boat launch ramp, picnic tables, restrooms, a fishing pier, a floating boat dock, and playground equipment. The park has approximately 93 parking spaces, including 22 extra-long spaces for vehicles with attached boats, and is open between 6:00 a.m. and 10:30 p.m., consistent with the District's ordinances. As shown on Figure 4.12-1, the project site is adjacent to, north, and west of Sweetwater Marsh National Wildlife Refuge; 1 mile northwest of Eucalyptus Park (within Chula Vista); 1.1 miles northwest of Bay Boulevard Park (within Chula Vista); and 1.45 mile northwest of Friendship Park (within Chula Vista). Community parks near the project site include Kimball Park (0.67 mile northeast), Las Palmas Park (1.48 miles east), and El Toyon Park (2.15 miles northeast). Mini parks within National City include Paradise Creek Educational Park, Morgan Square, Butterfly Park, and Sweetwater Heights Park, the closest of which is Paradise Creek Educational Park, 0.25 mile east from the project site.



Source: Parks-SanGIS (2019); Imagery-ESRI Street Map (2019)

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Figure 4.12-1
Existing Parks
National City Bayfront Projects & Plan Amendments EIR

4.12.3 Applicable Laws and Regulations

4.12.3.1 State

California Coastal Act

The California Coastal Act of 1976 (CCA) established a coastal zone boundary within which specific planning and development requirements must be met in order to protect and preserve the state's coastal resources. Prior to certification of a PMP, the Coastal Commission oversees compliance with the CCA. Once the Coastal Commission certifies a PMP, such as the District's, permitting authority is vested with the District. If a PMPA is required, the amendment must conform to Chapter 3 policies for appealable projects and Chapter 8 policies for non-appealable projects. The proposed project requires a PMPA and, as such, the amendment must be consistent with the Chapter 8 policies of the CCA, and the portions of the proposed PMPA related to appealable development (e.g., overnight accommodations) must be consistent with the Chapter 3 policies of the CCA including, but not limited to, Articles 2 and 3, which include policies that govern public access and recreational opportunities. Policies included in Article 2 pertain to providing coastal access from the nearest public roadway to the shoreline and avoiding overcrowding along the coast. Article 3 includes policies promoting recreational boating in coastal waters and maintaining areas suited for water-oriented recreational activities. If the PMPA is approved and certified, Coastal Development Permits (CDPs) are required to proceed with the proposed project components, consistent with the PMPA.

California Building Code

California Code of Regulations, Title 24, Part 9 provides the California Building Code, which contains fire-safety–related building standards referenced in other parts of Title 24. This code includes portions of the 2015 International Fire Code by the International Code Council. Title 24 requires building according to fire safety standards for all new construction, including new buildings, additions, alterations, and, in nonresidential buildings, repairs.

4.12.3.2 Local

Port of San Diego Port Master Plan

Land uses and development along the waterfront are guided by the PMP, which divides tidelands around San Diego Bay into 10 Planning Districts, each with its own corresponding Precise Plan. The proposed project is included in Planning District 5–National City Bayfront. The Precise Plan for Planning District 5 in the PMP allows for the development of commercial recreation uses, marine terminal and marine-related industrial uses, commercial recreation, parks, public facilities, and industrial uses (District 2020). Parks and other public recreation facilities within Planning District 5 are illustrated on Figure 4.9-1, and land use objectives and criteria for public recreation are listed on page 27 of the PMP, which states the following.

> Parks, plazas, public accessways, vista points and recreational activities on Port lands and tidelands should:
>
> - Provide a variety of public access and carefully selected active and passive recreational facilities suitable for all age groups including families with children throughout all seasons of the year.

- Enhance the marine, natural resource, and human recreational assets of San Diego Bay and its shoreline for all members of the public. Provide for clear and continuous multi-lingual information throughout Port lands and facilities to and about public accessways and recreational areas.

San Diego Unified Port District Act

The San Diego Unified Port District Act (Port Act) (Appendix 1 of the California Harbors and Navigation Code) was adopted in 1962. Through the Port Act, the State of California delegated its authority to the District to manage and control certain Tidelands and submerged waters in trust for all Californians. Specifically, the District was established for the development, operation, maintenance, control, regulation, and management of the tidelands and lands underlying the inland navigable waters of San Diego Bay, and for the promotion of commerce, navigation, fisheries, and recreation. Under the Port Act, the District was granted broad police powers. The Port Act requires the District to exercise its land management authority and powers over (1) the tidelands and submerged lands granted to the District and (2) any other lands conveyed to the District by any city or the County of San Diego or acquired by the District. The Port Act grants the District exclusive police power over property and development subject to its jurisdiction. A PMP is also required by the Port Act, which must specify the land and water uses within the District's jurisdiction. The following sections of the Port Act pertain to public services and recreation.

- Section 56 – the Board of Port Commissioners (Board) shall make and enforce such local police and sanitary regulations relative to the construction, maintenance, operation, and use of all public services and public utilities in the district, operated in connection with or for the promotion or accommodation of commerce, navigation, fisheries, and recreation therein as are no vested in the District.
- Section 57 – the Board may acquire, construct, erect, maintain or operate within the District, all improvements, utilities, appliances or facilities which are necessary or convenient for the promotion and accommodation of commerce, navigation, fisheries and recreation, or their use in connection therewith upon the lands and waters under the control and management of the board, and it may acquire, maintain and operate facilities of all kinds within the District (Amended 1963).
- Section 87(a)(5) and (6) – the tide and submerged lands conveyed to the District by any city included in the District shall be held by the District and its successors in trust and may be used for purposes in which there is a general statewide purpose, as follows:
    - (5) For the construction, reconstruction, repair, maintenance, and operation of public buildings, public assembly and meeting places, convention centers, parks, playgrounds, bathhouses and bathing facilities, recreation and fishing piers, public recreation facilities, including, but not limited to, public golf courses, and for all works, buildings, facilities, utilities, structures, and appliances incidental, necessary, or convenient for the promotion and accommodation of any such uses.
    - (6) For the establishment, improvement, and conduct of small boat harbors, marinas, aquatic playgrounds, and similar recreational facilities, and for the construction, reconstruction, repair, maintenance, and operation of all works, buildings, facilities, utilities, structures, and appliances incidental, necessary, or convenient for the promotion and accommodation of any of those uses, including, but not limited to, snack bars, cafes, restaurants, motel, launching ramps, and hoists, storage sheds, boat repair facilities with

cranes and marine ways, administration buildings, public restrooms, bait and tackle shops, chandleries, boat sales establishments, service stations and fuel docks, yacht club buildings, parking areas, roadways, pedestrian ways, and landscaped area.

4.12.4 Project Impact Analysis

4.12.4.1 Methodology

This section analyzes the proposed project's impacts on public services by determining if physical improvements to existing public facilities would be required. If required, the analysis determines if the physical construction would result in a significant impact on the environment and if mitigation is necessary.

Similarly, recreational impacts are considered relative to the proposed project's potential to accelerate the physical deterioration of existing recreational facilities. In addition, recreational impacts may occur if the proposed project would implement recreational amenities that would directly result in a physical impact on the environment.

In addition to a review of relevant plans and policies, fire and police protection service providers were contacted and sent questionnaires to determine if the proposed project would significantly affect the respective providers' abilities to provide services to the existing service area and potentially lead to new or physically altered facilities as a result of the proposed project. Their responses are summarized below in Section 4.12.4.3, *Project Impacts and Mitigation Measures*.

4.12.4.2 Thresholds of Significance

The following significance criteria are based on Appendix G of the State CEQA Guidelines and provide the basis for determining the significance of impacts associated with public services and recreation resulting from implementation of the proposed project. The determination of whether a public services or recreational impact would be significant is based on the professional judgment of the District as lead agency based on the evidence in the administrative record.

Impacts are considered significant if the proposed project would result in any of the following.

1. Fire Protection and Emergency Response—Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency services.
2. Police Protection—Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection.
3. Schools—Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental

facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools.

4. Parks—Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks.
5. Other Public Facilities—Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for other public facilities.
6. Recreation—Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
7. Recreation—Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

4.12.4.3 Project Impacts and Mitigation Measures

Threshold 1: Fire Protection and Emergency Services—Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency services.

Impact Discussion

Construction

Construction of the proposed project would involve the construction of a recreational vehicle park, modular cabins, up to four hotels, dry boat storage, and an expanded marina (GB Capital Component). The Pasha Rail Improvement Component would involve the construction and operation of a rail connector track and storage track. The Bayshore Bikeway Component would involve the construction and operation of Segment 5 of the Bayshore Bikeway. The City Program – Development Component would involve the construction of hotel, restaurant, retail, and/or a combination of tourist-/visitor-serving commercial development north of Bay Marina Drive and the potential narrowing of Bay Marina Drive west of Marina Way, or closure of Bay Marina Drive west of Marina Way to through vehicular traffic. The Pasha Road Closures Component would include closing roadways near National City Marine Terminal to increase Pasha's operational efficiencies. The Balanced Plan would include the expansion and reconfiguration of Pepper Park, reconfiguration of Marina Way and the existing alignment of 32nd Street, and public access improvements. Project components are anticipated to be constructed in different phases, with the construction of many project components potentially overlapping. All construction activities would occur between 7 a.m.

and 7 p.m., in compliance with the City's municipal code. Construction staging would occur within the project area, and construction activities are anticipated to occur over a 24- to 60-month period.

Fire protection and emergency response would be provided by NCFD (landside components) and HPD (waterside components). During construction of the landside components of the Balanced Plan, Bayshore Bikeway Component, Pasha Rail Component, and City Program – Development Component, there could be a need to respond to the project site for construction-related injuries or accidental fire. NCFD Station 34, approximately 0.7 mile east of the project site at 343 East 16th Street in National City, would be the primary responder for the landside portion of the proposed project. Other NCFD fire stations that would respond to the landside portions of the site include Stations 31 and 33, about 1.96 miles east and 2 miles northeast, respectively, of the project site. The proposed project would result in closure of Tidelands Avenue between Bay Marina Drive on the north and 32nd Street on the south, and West 28th Street between Quay Avenue and Tidelands Avenue; as well as and potential closure, or narrowing, of Bay Marina Drive (west of Marina Way) to through vehicular traffic. However, road closures would still allow access for emergency response. The response time from Fire Station 34, the primary station, to the project site is approximately 6 minutes, which is commensurate with the "best practice" initial response time of 6 minutes under the NFPA 1710 standard. The number of staff deployed during a response depends on the type of incident. In most cases, the minimum response would be a fire engine with a minimum of three to four personnel, which is currently available at Station 34 (Hernandez pers. comm.). Development associated with the proposed project would be designed and constructed in compliance with the California Building Code, which contains fire-safety–related building standards. The project site is in a developed area that is served by NCFD and existing fire stations would continue to serve the project area. As such, NCFD would be able to accommodate construction of the proposed project without the need for construction of new facilities.

During construction of the in-water components of the GB Capital Component, there could be a need to respond to the project site for construction-related injuries or accidental fire. HPD provides marine firefighting services in and around San Diego Bay for the District. In addition to watercraft enforcement, HPD patrol boats can serve as firefighting boats that respond to fire emergencies in the Bay. Construction of the waterside components may generate an increased need for HPD's fireboats should any waterside emergencies occur. HPD's fireboats cooperate with NCFD responders, as necessary. Vessels would respond in the event of a marine-firefighting incident from either the Shelter Island substation or the Chula Vista substation depending on who is closest at the time of the call. HPD would serve the waterside portion of the proposed project site in the event of an emergency in San Diego Bay and would be able to respond within HPD's standard response times due to active patrolling in San Diego Bay 24/7. HPD confirmed that it would be able to respond within HPD's standard times (Ashton pers. comm.).

Therefore, no new or physically altered governmental facilities would be required as a result of project construction in order to maintain acceptable response times, service ratios, or other performance standards for fire and emergency service; impacts would be less than significant.

Operation

The proposed project would be constructed in accordance with Title 24, Article 9 of the California Building Code, which includes the 2019 California Fire Code and 2015 International Fire Code by the International Code Council, all of which would ensure onsite controls are in place to limit the extent of the damage from any potential fire. However, operation of the proposed project would generate

more hotel guests, retail visitors, and recreational visitors. Operation of additional boat slips associated with the GB Capital Component would potentially result in an increase in operations-related injuries or accidental fire due to increased use of the area. Additional visitors to the project site associated with use of the project components would potentially place increased demand on the fire and emergency response services of NCFD and HPD.

A review of the proposed project by NCFD and HPD determined that, if it is implemented, both NCFD and HPD would be able to provide adequate response within the desired performance standard without the need for new or altered facilities. HPD would be able to respond to the project site within the standard response time of 6 minutes for emergency services for vehicles and vessels (Ashton pers. comm.).

Therefore, because new or physically altered fire protection facilities would not be required as a result of the proposed project's operation in order to maintain acceptable response times for fire and emergency services, the proposed project's impact on NCFD and HPD facilities would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency services. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 2: Police Protection—Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection.

Impact Discussion

Construction

Project construction activities would involve standard construction equipment such as earth-moving equipment and pile drivers. Dewatering pumps, cranes, and concrete pump-towers would also be utilized. Several construction cranes may be set in place during construction to support steel beam placement and concrete pouring. During the construction period, there could be safety concerns regarding such things as loitering at the construction site, theft, and burglary of

construction equipment and materials left unattended; in the event of any criminal activity, local law enforcement services would be needed to respond to the project site.

As stated in Section 4.12.2, *Existing Conditions*, the first responders to any police protection requests at the project site would be provided from either the NCPD Patrol Division or the HPD headquarters and administration building at 3380 North Harbor Drive. NCPD is currently under standard response times for all priorities, with the exception of Priority 1 calls, and meets acceptable response times. While NCPD would need additional patrol officers to respond to the additional calls for police protection services during construction, the proposed project would not require new or physically altered police protection facilities in order to maintain acceptable response times and service ratios (Tellez pers. comm.).

In addition to police protection services provided by NCPD, HPD has indicated that, with current staffing, the proposed project would receive adequate law enforcement service, response times would remain at acceptable levels, and new or altered governmental facilities would not be required (Ashton pers. comm.)

Therefore, no new or physically altered police protection facilities would be required as a result of project construction in order to maintain acceptable response times, service ratios, or other performance standards for police protection. Impacts would be less than significant.

Operation

Operation of the proposed project would attract additional hotel guests, retail visitors, and recreational visitors to the project site than under present conditions. As noted during communication with NCPD, operation of the proposed project may generate additional calls for service due to increased traffic, pedestrian, and tourism activity. While NCPD would need additional patrol officers, the proposed project would not require new or physically altered police protection facilities in order to maintain acceptable response times and service ratios (Tellez pers. comm.). NCPD's police response times are within standards (Tellez pers. comm.). Although NCPD would recommend the addition of three police officers, three police patrol equipped vehicles, and additional equipment including hand-held radios and laptops, no new or physically altered police facilities would be required as a result of project operation in order to maintain acceptable response times, service ratios, or other performance standards for police protection (Tellez pers. comm.).

As with the construction phase, HPD's response capabilities to the project site would not be significantly affected and continued acceptable service levels, based on NFPA's adequate response times, would be provided under project operation conditions (Ashton pers. comm.). Impacts would be less than significant. Therefore, operation of the proposed project would not require new or expanded police protection facilities in order to maintain acceptable response times and service ratios.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 3: Schools—Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools.

Impact Discussion

The need for new or physically altered governmental facilities to maintain acceptable service ratios or other performance objectives for schools would only potentially occur if a project increased enrollment at existing schools. However, such actions would be dependent upon implementation of a residential project component, and implementation of the proposed project would not include a residential component. As discussed in Section 4.11, *Population and Employment*, of this Draft EIR, the project is not expected to necessitate the construction of new housing that could increase enrollment at existing schools. Project site users would consist mainly of hotel guests, Pasha employees, retail visitors, and recreational visitors. These visitors would only be at the site temporarily and would not require school facilities. Therefore, the proposed project would not increase demand on school facilities, and no new or altered facilities would be needed as a result of the proposed project. Consequently, implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 4: Parks—Implementation of the proposed project would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks.

Impact Discussion

Because the Pepper Park expansion component of the proposed project would be on District Tidelands, it would be subject to the provisions listed within the PMP and would not be required to meet any service ratios or performance objectives per the Quimby Act or the City's General Plan. Page 27 of the PMP provides land use objectives and criteria for public recreation, which state that recreation activities should provide active and passive recreation for all age groups that enhances San Diego Bay and public access throughout District lands. Additionally, Pepper Park, located within the project site, would be expanded by approximately 2.54 acres from approximately 5.2 acres to approximately 7.7 acres under the proposed project. The proposed project also includes modifications to existing operational restrictions that could increase the use of the aquatic center. The proposed project is subject to Chapter 3, Articles 2 and 3, of the CCA, which pertain to maintaining access and providing recreational opportunities to coastal areas.

Construction

The proposed project includes the expansion of Pepper Park by over 2.5 acres: approximately 1.52 acres to the north and west, and approximately 1 acre to the north and east. As discussed throughout this EIR, construction of the proposed project, including the proposed expansion of Pepper Park, could result in potential physical impacts associated with construction activities. Mitigation measures have been identified for significant impacts associated with the construction of the park that could be developed under the proposed project. To the extent feasible, the identified mitigation measures would reduce impacts to less-than-significant levels. Construction of the Pepper Park expansion would not result in any additional significant impacts beyond those already identified throughout this EIR.

Operation

The proposed project would increase the designated Park/Plaza area by approximately 2.54 acres, for a total of 7.7 acres. The land use change would occur to the north, west, and east of the existing Pepper Park. Although visitors to the project area would increase as a result of the proposed project, the expansion of Pepper Park would serve additional visitors during operations. Therefore, implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks. Impacts would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction

of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 5: Other Public Facilities—Implementation of the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts.

Impact Discussion

Construction

Construction of the development components of the proposed project would involve the construction of up to four hotels, a recreational vehicle park, modular cabins, dry boat storage, and an expanded marina (GB Capital Component). In addition, the proposed project would involve the construction and operation of Segment 5 of the Bayshore Bikeway Component. The proposed project would also involve the construction of hotel, restaurant, retail, and/or a combination of tourist-/visitor-serving commercial development north of Bay Marina Drive (City Program – Development Component). The proposed project would also include the construction of a connector track and a storage track west of the realigned Marina Way/Road D3 roadway identified in the Balanced Plan (Pasha Rail Improvement Component). The proposed project would also include closure of roadways, associated with the Pasha Road Closures Component, and use for marine terminal-related operations. Construction activities would increase the number of construction employees utilizing the project site. However, it is not expected that they would use existing public facilities such as libraries for such a duration of time that would result in the need for new or physically altered governmental facilities. Therefore, impacts associated with project construction would be less than significant.

Operation

Operation of the proposed project would not result in adverse impacts on other public facilities. Physical impacts on public services are usually associated with in-migration and population growth, which increase the demand for public services and facilities. The proposed project does not include a residential component and would therefore not increase the local population. Although additional employees are anticipated during operation, they are not expected to increase the use of existing public facilities. Therefore, the proposed project would not result in increased demand that would require the need for new or physically altered public facilities. Consequently, because new or physically altered governmental facilities would not be required as a result of the proposed project's operation, the proposed project's impact on other public facilities would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not require new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 6: Recreation—Implementation of the proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Impact Discussion

The analysis below discusses the potential for hotel guests, Pasha employees, retail visitors, and recreational visitors to use existing recreational facilities to such an extent as to accelerate their physical deterioration. Pepper Park would be expanded by approximately 2.54 acres from approximately 5.2 acres to approximately 7.7 acres under the proposed project.

Construction

Construction activities would bring an average daily workforce of up to 395 construction workers to the project site daily. Although it is reasonable to assume construction workers may take their lunch breaks in Pepper Park because it is within the project site, it is not expected that they would use existing neighborhood or regional parks or other recreational facilities to such a degree and for such a duration of time that there would be a substantial physical deterioration of the existing facilities. Also, construction is short term. As a result, project construction would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of these facilities would occur or be accelerated. Impacts would be less than significant.

Operation

The proposed project includes modifications to the National City Aquatic Center's existing operational restrictions in the CDP for the facility that limit existing operations and utilization of the facility. The project proposes to amend the CDP to eliminate the following restrictions:

- Class sizes are limited to a 1:6 instructor-to-student ratio.
- Water equipment rentals (e.g., kayaks, rowboats) must be docent supervised.
- Participation in aquatic center programming shall not be denied based the financial ability/ inability to pay.

- Existing buoys in Sweetwater Channel, south of Pier 32 Marina, are in place to prevent encroachment into the adjacent refuge.
- Most aquatic center participants will arrive in groups by bus.

In addition, the project proposes to relocate the buoys south of Pier 32 Marina in order to allow non-motorized watercraft to access the area farther to the east in Sweetwater Channel. Operational restrictions reduced as a result of implementation of the proposed project would increase use of the aquatic center.

The proposed project would result in increased visitors to the project site and surrounding areas. Project site users would consist mainly of hotel guests, Pasha employees, retail visitors, and recreational visitors. The proposed project would expand park areas for the public, which includes areas that would be used temporarily by visitors.

Hotel guests, employees, retail visitors, and waterfront visitors would be present on the project site during operation. The expansion of Pepper Park and expanded recreational opportunities, including the expanded aquatic center uses and the addition of the Bayshore Bikeway, would accommodate the additional visitors that would result from the proposed project because recreational opportunities would be expanded beyond existing recreational facilities. Therefore, use of existing recreational facilities would not lead to the substantial deterioration of existing parks due to expanded recreational uses within the project site. As a result, although operation of the proposed project could increase the use of the existing park or other recreational facilities, the proposed project would not increase their use in such a way that substantial physical deterioration of these facilities would occur or be accelerated. Therefore, impacts would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 7: Recreation—Implementation of the proposed project would include recreational facilities or require the construction or expansion of recreational facilities, which would have an adverse physical effect on the environment.

Impact Discussion

As described under Threshold 6, as a result of the proposed project, the total area of public park would be increased from approximately 5.2 acres to approximately 7.7 acres. The Balanced Plan would increase Pepper Park by over 2.5 acres: approximately 1.52 acres to the north and west, and approximately 1 acre to the north and east. The Pepper Park expansion has not yet been designed,

but may include the following features: reconfiguration of the existing Pepper Park layout, which may include a mixture of hardscape (e.g., paved plazas, shade structures) and new landscaping (e.g., landscaped berms, open lawn); an amphitheater; and an interactive fountain/splashground. The proposed use modifications to National City Aquatic Center would allow for increased public use, as described in Chapter 3, *Project Description*.

Construction

As discussed throughout this EIR, construction of the proposed project, including the proposed expansion of Pepper Park, could result in potential physical impacts associated with construction activities. Mitigation measures have been identified for significant impacts associated with the construction of the park that could be developed under the proposed project. To the extent feasible, the identified mitigation measures would reduce impacts to less-than-significant levels. Construction of the Pepper Park expansion (part of the Balanced Plan) would not result in any additional significant impacts beyond those already identified throughout this EIR. As such, impacts would be less than significant.

Operation

As discussed under Threshold 4, operational impacts related to the proposed project would include the expansion of Pepper Park, increased recreational opportunities with the expanded aquatic center uses, and the addition of the Bayshore Bikeway. These would be able to accommodate the additional visitors that would result from the proposed project.

Level of Significance Prior to Mitigation

Implementation of the proposed project would include recreational facilities or require the construction or expansion of recreational facilities; however, no impacts beyond those identified throughout this EIR were identified. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Section 4.13
Transportation, Circulation, and Parking

4.13.1 Overview

This section describes existing conditions and applicable laws and regulations related to transportation, circulation, and parking, followed by an analysis of the proposed project's potential to (1) conflict with an applicable program, plan, ordinance, or policy addressing the circulation system, including transit facilities, roadways, and bicycle and pedestrian facilities; (2) conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b); (3) substantially increase hazards due to a geometric design feature or incompatible uses; (4) result in insufficient emergency access; or (5) result in an insufficient parking supply that would lead to a decrease in public coastal access.

The information provided in this section is summarized from the *National City Bayfront Projects Transportation Impact Analysis (TIA),* dated September 2021 and the *National City Bayfront Projects Transportation Impact Study (TIS), Vehicle Miles Traveled – SB 743 Analysis,* dated September 2021, both of which were prepared by Chen Ryan Associates (Appendices K and L, respectively). Table 4.13-1 summarizes the significant impacts and mitigation measures discussed in Section 4.13.4.3, *Project Impacts and Mitigation Measures*. Note that the conditions and analyses provided in this section are limited to existing conditions with and without the project. Near-term (2030) and long-term (2050) conditions, including reasonably foreseeable cumulative projects, and the related analysis are provided in Chapter 5, *Cumulative Impacts*.

Table 4.13-1. Summary of Significant Transportation, Circulation, and Parking Impacts and Mitigation Measures

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-TRA-1: Generate Vehicles Miles Traveled in Exceedance of Employment-Based Thresholds During Project Operations (Phase 1 and Phase 2 of GB Capital Component, City Program – Development Component)	**MM-TRA-1**: Implement TDM and VMT Reduction Measures (GB Capital Component, City Program – Development Component)	Significant and Unavoidable	This mitigation measure would require implementation of transportation-demand-management (TDM) and vehicle-miles-traveled (VMT) reduction measures from the San Diego Association of Governments (SANDAG) Mobility Management Toolbox, using the VMT Reduction Calculator Tool, which would reduce employment-based VMT generated during project operations. However, despite implementation of the

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
			measures, employment-based VMT generated by the proposed project would not be below the applicable threshold. Therefore, this impact would remain significant and unavoidable.
Impact-TRA-2: Induced Travel and Increased Vehicle Miles Traveled from the Closure of Bay Marina Drive to Through Traffic at Marina Way (City Program – Development Component)	**MM-TRA-2**: Implement TDM Plan (City Program – Development Component)	Significant and Unavoidable	This mitigation measure would require implementation of a TDM plan, which could reduce employment-based VMT during project operations. However, it is not guaranteed that employment trip-reduction measures would be effectively executed and total VMT for the study area would be reduced to a level below no-project conditions. This impact would remain significant and unavoidable.
Impact-TRA-3: Inadequate Emergency Access from Temporary Road Closures During Project Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component)	**MM-TRA-3**: Implement Traffic Control Measures During Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component)	Less than Significant	The mitigation measure would ensure that emergency vehicle access to the project site and surrounding area would be maintained by requiring implementation of traffic control measures during project construction. This impact would be reduced to less than significant.
Impact-TRA-4: Removal of Tsunami Evacuation Routes from the Closure of Bay Marina Drive (City Program – Development Component).	**MM-TRA-4:** Identify Alternate Tsunami Evacuation Routes (City Program – Development Component).	Less than Significant	The mitigation measure would ensure identification of an alternate tsunami evacuation route prior to closure of Bay Marina Drive to through traffic. This impact would be reduced to less than significant.
Impact-TRA-5: Inadequate Emergency Access from the Closure of Tidelands Avenue During Operation (Pasha Road Closures Component)	**MM-HAZ-9:** Coordinate with the City Fire Marshal (Pasha Road Closures Component)	Less than Significant	The mitigation measure would ensure that emergency vehicle access to the project site and surrounding area would be maintained during project

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
			operation. Therefore, this impact would be reduced to less than significant.
Impact-TRA-6: Inadequate Emergency Access from the Closure of Bay Marina Drive (City Program – Development Component)	**MM-HAZ-10:** Coordinate with the City Fire Marshal (City Program – Development Component)	Less than Significant	The mitigation measure would ensure that emergency vehicle access to the project site and surrounding area would be maintained during project operation. Therefore, this impact would be reduced to less than significant.
Impact-TRA-7: Inadequate Emergency Access from Marina Way Realignment (Balanced Plan)	**MM-HAZ-11:** Manage Marina Way Realignment Conditions (Balanced Plan or GB Capital Component)	Less than Significant	The mitigation measure would ensure that emergency vehicle access to the project site and surrounding area would be maintained during project operation. Therefore, this impact would be reduced to less than significant.
Impact-TRA-8: Insufficient Parking During Project Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component)	**MM-TRA-5:** Require Offsite Parking, Shuttle Transportation, and Incentives for Transit Use for Construction Workers and Wayfinding Signage for Visitors (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component)	Less than Significant	The mitigation measure would require construction workers to park at an offsite location and use a shuttle system or public transit, thereby maintaining adequate parking for continued coastal access for the public. Therefore, this impact would be reduced to less than significant.
Impact-TRA-9: Insufficient Parking for Terminal Employees During Operations (Pasha Road Closures Component)	**MM-TRA-6:** Reconfigure Lot Q to Accommodate 590 Striped Parking Spaces (Pasha Road Closures Component)	Less than Significant	The mitigation measure would adequately accommodate the 574 existing NCMT employees. Therefore, this impact would be reduced to less than significant.
Impact-TRA-10: Insufficient Parking for Pepper Park Expansion and Reconfiguration (Balanced Plan).	**MM-TRA-7:** Accommodate 23 Additional Parking Spaces at the Pepper	Less than Significant	The mitigation measure would require adequate parking to be added at Pepper Park. Therefore, this

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
	Park Parking Lot (Balanced Plan)		impact would be reduced to less than significant.

4.13.2 Existing Conditions

4.13.2.1 VMT Study Area

The proposed project includes components in both the District's and City's jurisdictions. Section 15064.3 of the State CEQA Guidelines describes specific considerations for evaluating a project's impacts on transportation and identifies VMT as the most appropriate metric for determining the significance of impacts. Section 15064.3 stipulates that a project's effect on traffic delay shall not constitute a significant environmental impact under CEQA. In accordance with Senate Bill (SB) 743 and Section 15064.3 of the State CEQA Guidelines, the District transitioned from level of service (LOS) to VMT for determining the significance of transportation impacts.

VMT per employee for the proposed project was determined by using the SANDAG Series 13 Transportation Forecast Base Year Model (SANDAG Model). The SANDAG Model evaluates total VMT associated with employment trips within smaller geographic areas, called Transportation Analysis Zones (TAZs), throughout the SANDAG region. Total VMT associated with employment-based trips generated within each TAZ is divided by the total number of employees within the TAZ to arrive at VMT per employee. The determination of VMT per employee for the proposed project was based on the results of analysis for the TAZs in which the proposed project is located. It should be noted that the evaluation provided by the SANDAG Model is limited to the San Diego region; therefore, VMT associated with trips that start or end outside the San Diego region reflects only the distance traveled within the region; travel outside the San Diego region is not accounted for in the VMT calculations.

The City General Plan contains policies related to maintaining an acceptable LOS—specifically, Policy C-2.3, which focuses on maintaining LOS D or better for traffic operations. As such, degradation of traffic operations to LOS E or LOS F would be inconsistent with Policy C-2.3. However, with adoption of SB 743, a project's effect on traffic delay no longer constitutes a significant environmental impact under CEQA (State CEQA Guidelines Section 15064.3). Therefore, inconsistency with the City General Plan as it relates to delay-based traffic-operations metrics is provided for informational purposes only (Appendix K)[1] and does not constitute a significant impact on the environment. To address issues related to the change from LOS to VMT, as required by SB 743, the City issued a memo in August 2020 that provided recommendations and clarification as to the approach project applicants within the City's jurisdiction should use in evaluating transportation-related impacts. The memo recommended that project applicants use the new *Guidelines for Transportation Impact Studies in the San Diego Region*, May 2019, which provides

[1] Methods used to determine the project's effect on LOS were performed in accordance with the requirements of the SANTEC/ITE Guidelines. For more details related to the methods used, please see Appendix K, Chapter 2, *Analysis Methodology*.

methodologies for transportation engineers and planners to use when conducting CEQA transportation analyses for land development and transportation projects, in compliance with SB 743. The City memorandum is provided in Appendix M.

Roadway Corridors

VMT analysis does not examine locally significant transportation facilities within a project study area. However, for informational purposes, the locally significant roadways and freeway corridors are provided below.

North–South Facilities

Interstate 5

Interstate (I) 5 is a north–south freeway immediately east of the study area. This freeway provides regional access to the project site. Access to the study area from I-5 is provided via the Bay Marina Drive/Mile of Cars Way interchange as well as the Civic Center Drive/Harbor Drive interchange to the north.

Cleveland Avenue

Cleveland Avenue is a two-lane roadway that connects Civic Center Drive, to the north, to Bay Marina Drive, to the south. The roadway, which has a center left-turn lane, provides access to multiple industrial uses and small businesses. Parallel parking and sidewalks are provided on both sides. The posted speed limit is 35 miles per hour (mph). There are currently no bicycle or transit facilities along Cleveland Avenue.

Tidelands Avenue

Tidelands Avenue is a four-lane, undivided roadway with a posted speed limit of 35 mph. The roadway has a paved width of 62 feet. Parking is allowed on both sides. Tidelands Avenue between Civic Center Drive and West 32nd Street provides Class II bicycle lanes[2] on both sides; toward the northern end of Tidelands Avenue, near Civic Center Drive, a two-way Class IV cycle track[3] exists on the west side of the road. Within the project study area, pedestrian facilities (i.e., sidewalks) are provided on both sides of the roadway. There are currently no transit facilities along Tidelands Avenue within the project study area.

Marina Way

Marina Way is a two-lane roadway that connects Bay Marina Drive, to the north, to West 32nd Street, to the south. The roadway is generally undivided, except for the southern segment adjacent to Pasha Lot J (see Figure 3-18 for the location of Lot J) where it widens to a two-lane roadway with a center turn lane; parallel parking is provided on both sides of the roadway. A sidewalk is found on the east side of Marina Way but not on the west side. There are currently no bicycle or transit facilities along Marina Way.

[2] Class II bike lanes include pavement markings and signage within a dedicated portion of a roadway for exclusive or preferential bicycle travel. Class II bike lanes are not physically separated from vehicle lanes by barriers (SANDAG 2010).

[3] Class IV cycle tracks are located in roadway rights-of-way but separated from vehicle lanes by physical barriers or buffers (SANDAG 2010).

McKinley Avenue

McKinley Avenue is a two-lane roadway that connects 14th Street, to the north, to West 23rd Street, to the south. The undivided roadway provides parking on both sides. McKinley Avenue has a posted speed limit of 25 mph and currently does not include any bicycle or transit facilities.

East–West Facilities

Bay Marina Drive

Bay Marina Drive, which was formerly known as 24th Street, is a four-lane roadway that runs from Terminal Avenue, to the west, to Marina Way, to the east. At that point, it widens to five lanes that extend to the I-5 southbound ramps. This roadway is generally undivided, although short pockets have painted or raised medians. Bay Marina Drive has a posted speed limit of 30 mph and a paved width of 62 feet. Parking is not allowed on either side of the roadway between Haffley Avenue and I-5; however, parking is allowed on both sides of the roadway west of Haffley Avenue. Within the project study area, pedestrian facilities (i.e., sidewalks) are provided on both sides of the roadway, but no bicycle facilities are present. There are currently no transit facilities along Bay Marina Drive within the project study area.

Civic Center Drive

Civic Center Drive is an undivided, two-lane roadway that connects Tidelands Avenue, on the west, to National City Boulevard, to the east. The roadway has a posted speed limit of 30 mph; on-street parallel parking is provided on both sides. Within the study area, sections of Civic Center Drive between Tidelands Avenue and East Harbor Drive have sidewalks.

28th Street

Within the study area, 28th Street is an undivided, two-lane roadway with a posted speed limit of 35 mph. The roadway has a paved width of 45 feet. Parking is permitted on both sides of the roadway. West of Quay Avenue, 28th Street has sidewalks on both sides; however, between Quay Avenue and Tidelands Avenue, no sidewalk facilities are present. There are currently no bicycle or transit facilities along 28th Street within the project study area.

Public Transportation Services

Regional public transportation services in the project area include the San Diego Trolley and local bus lines. Planned public transportation services are discussed in SANDAG's adopted *San Diego Forward: The Regional Plan* (Regional Plan), which identifies transit improvements that facilitate access in the San Diego region through 2050.

San Diego Trolley

The San Diego Trolley is a light rail passenger service. The service is operated by San Diego Trolley, Inc., which is owned by the Metropolitan Transit System (MTS). The San Diego Trolley system consists of four lines, the UC San Diego Blue Line (Blue Line), Orange Line, Sycuan Green Line, and SDG&E Silver Line; 53 stations; and 54.3 miles of track (MTS 2016). The Blue Line was the first light rail line constructed in San Diego and the start to the MTS trolley system. Operating since 1981, the Blue Line began with service between downtown San Diego and the San Ysidro Port-of-Entry. Blue Line service has been expanded four times since its inception and now provides service between the

San Ysidro Port-of-Entry, to the south, and the Old Town Transit Center, to the north. In all, the Blue Line currently extends 15.4 miles and includes 18 stations. However, construction is currently under way to extend the Blue Line north to the University City community. This line, which is referred to as the Mid-Coast Corridor, will serve major activity centers such as the University of California, San Diego and the Westfield UTC shopping center. Service is anticipated to begin in 2021 (SANDAG 2019a).

The Blue Line currently runs with 7- to 8-minute headways during peak periods and 15-minute headways during off-peak periods. There are currently no trolley stations within the traffic study area. The closest Blue Line stop to the project area is the 24th Street station on the east side of I-5 at the corner of West 22nd Street and Wilson Avenue. The 24th Street station is approximately 0.2 mile (walking distance) from the closest project component (i.e., the City Program – Development Component) and approximately 1.2 miles (walking distance) from the farthest project component (i.e., the Pepper Park expansion, which is part of the Balanced Plan).

Local/Express Bus Services

There are currently no MTS bus routes within the project's traffic study area. The closest bus stop is at the 24th Street station, which is approximately 0.2 mile (walking distance) from the closest project component (i.e., the City Program – Development Component). That station is served by MTS Route 961.

Pedestrian and Bicycle Facilities

Pedestrian facilities (i.e., sidewalks) are currently provided on both sides of Tidelands Avenue, Bay Marina Drive, and Cleveland Avenue within the traffic study area. In addition, there is a sidewalk on the east side of Marina Way.

The Bayshore Bikeway is a 24-mile facility that runs along San Diego Bay. Bicycle facilities are currently provided on Tidelands Avenue, which has bicycle lanes on both sides of the roadway, and West 32nd Street, which has "sharrows," or shared lanes, on both sides of the roadway. The bicycle facilities on Tidelands Avenue and West 32nd Street were installed in February 2018 as interim facilities along the Bayshore Bikeway; the facilities would be replaced by the proposed Bayshore Bikeway Component.

Parking Conditions

The project area encompasses multiple locations that currently provide on- and off-street parking. For example, parking is provided at Pier 32 Marina (218 spaces), Pepper Park (93 spaces), and on Tidelands Avenue (216 spaces), a total of 527 parking spaces.

4.13.3 Applicable Laws and Regulations

4.13.3.1 State

Senate Bill 743

Governor Jerry Brown signed SB 743 on September 27, 2013, which mandated a change in the way that public agencies evaluate transportation impacts of projects under CEQA by focusing on VMT rather than LOS and other delay-based metrics. SB 743 states that new methodologies under CEQA are needed for evaluating transportation impacts that are better able to promote the state's goals of reducing greenhouse gas emissions and traffic-related air pollution, promoting the development of a multimodal transportation system, and providing clean, efficient access to destinations. SB 743 indicates that measurements of transportation impacts may include VMT, VMT per capita, automobile trip generation rates, or automobile trips generated. Accordingly, SB 743 required the Governor's Office of Planning and Research (OPR) to amend the State CEQA Guidelines to reflect these changes.

State CEQA Guidelines Section 15064.3

Section 15064.3 of the State CEQA Guidelines was added as part of a comprehensive update to the guidelines adopted by the California Natural Resources Agency in December 2018. Section 15064.3 describes specific considerations for evaluating a project's transportation impacts and identifies VMT as the most appropriate metric for determining the significance of transportation impacts. Except for roadway capacity projects (e.g., a project that adds a new travel lane to serve automobiles), Section 15064.3 stipulates that a project's effect on automobile delay shall not constitute a significant environmental impact under CEQA. The specific criteria for analyzing transportation impacts for land use and transportation projects are provided in Section 15064.3, subdivision (b), of the State CEQA Guidelines. For land use projects, VMT exceeding an applicable threshold of significance may indicate a significant impact. Transportation projects that reduce, or have no impact on, VMT should be presumed to cause a less-than-significant transportation impact. Section 15064.3, subdivision (b), also provides guidance for qualitative analysis if existing models or methods are not available to estimate the VMT for the particular project being considered. As noted in Section 15064.3, subdivision (b), a lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT.

Technical Advisory on Evaluating Transportation Impacts in CEQA

In response to SB 743 and the addition of Section 15064.3 to the State CEQA Guidelines, OPR adopted the Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) in December 2018 to provide technical recommendations on methods for assessing VMT, thresholds of significance, and mitigation measures. The recommendations in the Technical Advisory are intended to provide guidance to agencies and the public for assessing VMT-related transportation impacts under CEQA. Details of the recommended thresholds of significance from the Technical Advisory are provided in Section 4.13.4.2, below.

California Department of Transportation Standards

The California Department of Transportation (Caltrans), which has jurisdiction over the state highway system, is divided into 12 districts. It establishes acceptable freeway and on- and off-ramp operations, which are based on the Transportation Research Board's *Highway Capacity Manual 2010* (Transportation Research Board 2010).

Signalized intersections at freeway ramps are required to be analyzed with use of intersection lane volume (ILV) procedures, as described in Topic 406 of *Highway Design Manual 2010* (Caltrans 2015). This methodology is based on an assessment of each intersection as an isolated unit, without consideration of the effects from adjacent intersections. For this reason, the ILV analysis is used to provide additional validation of signalized ramp intersection operations derived from the *Highway Capacity Manual 2010* methodology.

4.13.3.2 Regional

San Diego Association of Governments' San Diego Forward: The Regional Plan

As the Metropolitan Planning Organization (MPO) for the San Diego Region, SANDAG is required to prepare a regional transportation plan every 4 years in order to obtain federal funding for transportation improvements. The San Diego Forward: The Regional Plan (Regional Plan) was adopted by the SANDAG Board of Directors on October 9, 2015, to establish a long-range blueprint for the San Diego region's growth and development through 2050. The Regional Plan, which was developed in partnership with the region's 18 cities and the County of San Diego, aims to provide innovative mobility choices and planning to support a sustainable and healthy region, a vibrant economy, and an outstanding quality of life for all. The Regional Plan integrates both the 2004 Regional Comprehensive Plan and the 2050 Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS) into one unified plan. By incorporating the SCS, the Regional Plan is in compliance with SB 375, which identifies how the region will address greenhouse gas emissions to meet state-mandated levels and focuses on land use planning and transportation issues in an attempt to develop sustainable growth patterns on a regional level.

California State Proposition 111, passed by voters in 1990, established a requirement that calls for urbanized areas to prepare and regularly update a Congestion Management Program (CMP). The requirements within the state CMP were developed to monitor the performance of the transportation system, develop programs to address near-term and long-term congestion, and better integrate transportation and land use planning. SANDAG provided regular updates for the state CMP from 1991 through 2008. In October 2009, the San Diego region elected to be exempt from the state CMP. Since that decision, SANDAG has been abiding by 23 Code of Federal Regulations (CFR) 450.320 to ensure the region's continued compliance with the federal congestion management process. The Regional Plan is the region's long-range transportation plan and SCS. It meets the requirements of 23 CFR 450.320 by incorporating the following federal congestion management process: performance monitoring and measurement of the regional transportation system, multimodal alternatives and non-single occupant vehicle analysis, land use impact analysis, the provision of congestion management tools, and integration with the regional transportation improvement program process.

It should be noted that the SANDAG Board of Directors approved an action plan in February 2019 that extended the timeframe for completing the current update of the Regional Plan to 2021. In the

interim, SANDAG prepared a 2019 federal RTP that complies with federal requirements for the development of RTPs, retains air quality conformity approval from the U.S. Department of Transportation, and preserves funding for the region's transportation investments. The 2019 federal RTP builds on the Regional Plan, with updated project costs and revenues and a new regional growth forecast.

Riding to 2050, the San Diego Regional Bike Plan

The San Diego Regional Bike Plan (Regional Bike Plan) was developed to support the 2004 Regional Comprehensive Plan and the 2050 RTP in implementing the regional strategy for using bicycles as a valid form of everyday travel. The Regional Bike Plan, as a part of the SCS mandated by SB 375, provides for a detailed Regional Bike Network as well as the programs necessary to support it. Implementation of the Regional Bike Plan would help the region meet goals for reducing greenhouse gas emissions and improving mobility. The Bayshore Bikeway is one of the regional bikeway projects identified in the Regional Bike Plan.

4.13.3.3 Local

The project site, depending on which location, is within the land use jurisdiction of either the District or the City. As such, the local laws, regulations, and plans listed below were taken into account in the analysis of the proposed project's impacts on transportation and circulation. For the parking analysis, the District's Tideland Parking Guidelines (2001), the City's Municipal Code (Sections 18.24.080 and 18.45.050), and the ITE *Parking Generation Manual* (2010) were considered.

SANTEC/ITE Guidelines for Traffic Operations Studies in the San Diego Region

As noted above, the City uses the SANTEC/ITE Guidelines to determine acceptable roadway operations. The primary documents used to help prepare these guidelines were SANDAG's CMP and *Traffic Generators Manual*, the City of San Diego's *Traffic Impact Study Manual* (City of San Diego 1998) and *Trip Generation Manual* (City of San Diego 2003), and Caltrans' *Guide for the Preparation of Traffic Impact Studies* (Caltrans 2002). The SANTEC/ITE guidelines were prepared to assist local agencies throughout the San Diego region in promoting consistency and uniformity in the study of traffic operations.

City General Plan

The Circulation Element of the City's General Plan (City of National City, 2012) identifies the following policy for LOS requirements:

> Policy C-2.3: Strive to attain an automobile level of service (LOS) of D or better (or an equivalent standard under another analytical methodology). An automobile LOS of E or F may be acceptable under the following circumstances: 1) improvements necessary to attain an automobile LOS of D or better would decrease the effectiveness of the non-automotive components of the multi-modal circulation system (i.e., pedestrians, bicyclists, mass/public transit, etc.), or 2) improvements necessary to increase the effectiveness of the non-automotive components of the multimodal transportation system result in a decrease in automobile LOS.

The City's General Plan contains policies related to maintaining an acceptable LOS, specifically Policy C-2.3, which is focused on maintaining an LOS of D or better for traffic operations. As such, the

degradation of traffic operations to LOS E or LOS F would be inconsistent with Policy C-2.3 of the City's General Plan. However, with the adoption of SB 743, a project's effect on automobile delay no longer constitutes a significant environmental impact under CEQA (State CEQA Guidelines Section 15064.3). Therefore, the inconsistency with the City's General Plan, as it relates to delay-based traffic-operation metrics, is provided for informational purposes only (Appendix K) and does not constitute a significant impact on the environment. To address issues related to the change from LOS to VMT, as required by SB 743, the City issued a memo in August 2020 that provided recommendations and clarification as to the approach project applicants within the City's jurisdiction should use in evaluating transportation-related impacts. The memo recommended that project applicants use the new *Guidelines for Transportation Impact Studies in the San Diego Region*, May 2019, which provides methodologies for transportation engineers and planners to use when conducting CEQA transportation analyses for land development and transportation projects, in compliance with SB 743. The City memorandum is provided in Appendix M.

City Municipal Code, Title 18

Sections 18.24.080 and 18.45.050 of the City's Municipal Code establish parking standards that apply to mixed-use zones. Section 18.45.050 provides off-street parking requirements for different land uses. Therefore, the requirements vary, depending on the use and structure type (e.g., single detached dwelling unit, mobile home park). The City's parking standards would apply to the City Program – Development Component of the proposed project.

City Bicycle Master Plan

The City's Bicycle Master Plan (City n.d.) presents a new vision for bicycle transportation, recreation, sustainability, and the quality of life in National City. The Bicycle Master Plan recommends various improvements, based on public input, best practices, and analysis of existing conditions and future opportunities. The recommended improvements include bikeway network facilities, treatments at intersections and other spot locations, and bicycle support facilities. The improved facilities outlined in the plan will help make bicycling an effective transportation option throughout National City. In addition, the Bicycle Master Plan includes design guidelines and bicycle program recommendations and identifies funding sources for specific bicycle projects and programs. The Bayshore Bikeway is one of the projects identified in the Bicycle Master Plan to further the regional bikeway network plans outlined in SANDAG's Regional Bike Plan.

San Diego Unified Port District Tidelands Parking Guidelines

Adopted in January 2001, the parking guidelines are intended to assist in the determination of how much parking should be provided to serve uses in each of the planning districts. The guidelines focus on the parking demands for proposed development projects as well as the site-specific needs; they also distinguish between the demand a potential development generates and the parking requirement that development of a project on a specific site might create. Factors influencing parking demand include the land use type of the proposed development, transit accessibility, airport accessibility, and pedestrian orientation, whereas factors influencing parking requirements include demand plus any additional parking requirements created by the displacement of existing parking or other changes in the characteristics of parking in the area of the development (i.e., existing parking shortages and public access to the Bay). The guidelines establish parking demand rates as well as adjustment factors for determining the parking requirements of a development.

4.13.4 Project Impact Analysis

4.13.4.1 Methodology

The proposed project includes components in both the District's and City's jurisdictions. Section 15064.3 of the State CEQA Guidelines describes specific considerations for evaluating a project's transportation impacts on transportation and identifies VMT as the most appropriate metric for determining the significance of impacts. Except for roadway capacity projects (e.g., a project that adds a new travel lane to serve automobiles), Section 15064.3 stipulates that a project's effect on automobile delay shall not constitute a significant environmental impact under CEQA. In accordance with SB 743 and Section 15064.3 of the State CEQA Guidelines, the District and City transitioned from LOS to VMT for determining the significance of transportation impacts.

Vehicle Miles Traveled

VMT is the product of the number of vehicles times the number of miles traveled (i.e., vehicles × miles traveled). It is a measurement used to reflect the amount of automobile use. The methodology for determining the significance of VMT impacts is based on the OPR Technical Advisory dated December 2018. For land use development projects, OPR recommends three VMT-based metrics to determine if a project has a significant transportation related impact, as follows:

- **VMT per Capita.** All vehicle-based person trips are grouped and summed to the home location of the drivers or passengers on each trip. It includes both home-based and non-home-based trips. Home-based trips occur when drivers travel to or from a residential unit to a destination. Non-home-based trips include travel between destinations other than a residential unit. The VMT for each home is then summed for all homes in a particular census tract and divided by the population of that census tract to arrive at resident VMT per capita.
- **VMT per Employee.** All vehicle-based person trips are grouped and summed to the work location of individuals on each trip. This includes VMT associated with detours made during the work commute (e.g., stops at coffee shops, dry cleaners, grocery stores). The VMT for each work location is then summed for all work locations in a particular census tract and then divided by the total number of employees in that census tract to arrive at the VMT per employee.
- **Total VMT.** The sum of all vehicle trips generated in an area multiplied by their associated trip lengths. This total includes all the generated vehicle miles for Internal-to-Internal (I-I), Internal-to-External (I-E), and External-to-Internal (E-I) trips in the area.

The VMT analysis was completed using the SANDAG Series 13 Activity-Based Model (ABM), which was calibrated and customized for the project study area. The ABM is a travel demand forecasting model that incorporates census data and travel surveys to inform the algorithms of the model's projections. The ABM uses a simulated population, based on existing and projected demographics, to match residents to employment and forecasts daily travel on the regional transportation network. In addition, the model is able to track the daily travel of individuals in the simulated population, including origins, destinations, travel distances, and mode choices. Because the proposed project does not include any residential components, the transportation analysis did not evaluate VMT per capita. The SANDAG Series 13 ABM has four forecast scenarios: 2012, 2020, 2035, and 2050. The different components of the proposed project are projected to be implemented over several years; therefore, 2050 is the most appropriate (and conservative) year for conducting the VMT-per-

employee analysis. VMT for freight was not analyzed because there would be no increase in Pasha's operations or truck VMT with the project. However, total VMT associated with the Bay Marina Drive closure (part of the City Program – Development Component) could result in an increase in VMT because trucks would be rerouted through a more circuitous path; therefore, an induced travel analysis was conducted for the Bay Marina Drive closure.

For the purposes of this analysis, 2012 was selected as the base year (the year the Series 13 forecast model was established). However, the base-year analysis is provided for informational purposes only and is not used to determine the significance of VMT impacts associated with the proposed project. A Select Zone assignment was conducted for the TAZ for the proposed project, which tracked and calculated the project's VMT by user type. Model output results are presented in Appendix A of EIR Appendix L. For additional details related to the methods used, please see Appendix L, Chapter 2, *Analysis Methodology*.

Trip Generation

Construction

Several components of the proposed project include construction and demolition activities that would generate vehicle trips. These components include construction of a recreational vehicle (RV) park, modular cabins, dry boat storage, up to four hotels, and an expanded marina (GB Capital Component); a rail connector track and storage track (Pasha Rail Improvement Component); Segment 5 of the Bayshore Bikeway (Bayshore Bikeway Component); hotel, restaurant, and retail uses and/or a combination of tourist-/visitor-serving commercial development north of Bay Marina Drive (City Program – Development Component); reconfiguration and closure of existing roadways (Pasha Road Closures Component); and expansion of Pepper Park (Balanced Plan). In addition, the proposed project would include an optional feature under the Pepper Park expansion that would allow relocation of the historic Granger Hall for organized events.

Construction of the proposed project is anticipated to occur over two phases. The first phase would include the Balanced Plan improvements, the Phase 1 activities of the GB Capital Component, the Pasha Rail Improvement Component, the Pasha Road Closures Component, and the Bayshore Bikeway Component. This first phase is anticipated to be completed by around 2022. The second phase would include Phase 2 of the GB Capital Component and the City Program – Development Component. Phase 2 is anticipated to be completed by 2025; however, actual buildout of Phase 2 of the GB Capital Component would be entirely dependent upon future market conditions. Moreover, specific construction details are not available at this time. As such, the exact details and timing of project construction and the design of the various project components are unknown. Therefore, construction-related trip generation cannot be calculated until future construction details are known. Furthermore, VMT attributed to construction workers is not newly generated VMT; instead, their VMT is redistributed throughout the network, based on their travel to different work sites each day. Therefore, they are not generating new VMT each day, only redistributing it. It is important to note that construction traffic is temporary and not expected to significantly increase VMT or permanently degrade operations of a roadway facility. This redistribution is considered to be nominal and momentary. Consequently, it is assumed that the transportation impacts would be less than significant during the construction of the proposed project. Furthermore, per State CEQA Guidelines Section 15064.3 (b)(3), substantial evidence for VMT is based on state 2050 climate

goals. Therefore, temporary impacts with construction are not inconsistent with climate goals, and a qualitative analysis is sufficient.

Operation

The three operational trip-generating components of the proposed project are the City Program – Development Component, GB Capital Component, and the Pepper Park expansion and reconfiguration element of the Balanced Plan. Although several project components would not generate vehicle trips or affect roadway operations, two—the Bayshore Bikeway Component and Pasha Road Closures Component—would result in changes in traffic patterns and circulation within the project's traffic study area (the Pasha Road Closures Component would not generate vehicle trips or affect roadway operations beyond what was analyzed in the NCMT Tank Farm Paving and Street Closures Project and Port Master Plan Amendment EIR [District 2016]). For the purposes of the traffic analysis, these project components have been categorized into two groups: Development Projects and District Public Improvements Projects. These categories are based on the characteristics of associated components and their effects on traffic patterns. The Development Projects category includes the Bayshore Bikeway Component, City Program – Development Component, GB Capital Component, and Pasha Road Closures Component, while the District Public Improvements Projects category includes Pepper Park expansion and reconfiguration, realignment of Marina Way, and closure of West 32nd Street. In addition, the traffic analysis considers the combined effects of these two categories, which are collectively referred to as the Total Bayfront Projects in the impact analysis below. Furthermore, the proposed project includes an option to relocate Granger Hall to Pepper Park for use as a special event center. To be conservative, the traffic analysis assumed that this option would be implemented and that the relocated Granger Hall would be used as a restaurant, which has a higher trip generation rate than a special event center and, hence, reflects a worst-case scenario.

Trip generation estimates were developed using primarily the trip generation rates outlined in SANDAG's *Not So Brief Guide to Vehicular Traffic Generation Rates* (April 2002). However, based on anticipated operations at the boat storage facility, with its infrequent and inconsistent use, under the GB Capital Component, a modified "Marina" trip rate from the ITE *Trip Generation Manual* (10th edition) was used for this project element. Trip generation associated with the additional boat slips that would be added under the GB Capital Component was calculated using the typical Marina trip rate from the ITE *Trip Generation Manual*. Table 4.13-2 displays estimated daily, as well as AM and PM peak-hour, trip generation for the three project components that would generate vehicle trips. As shown in the table, the proposed project would generate a total of 11,802 daily trips, including 649 AM peak-hour trips (314 inbound/335 outbound) and 860 PM peak-hour trips (554 inbound/306 outbound).

Trip distribution for the majority of the project components relied on the SANDAG Series 13 Travel Demand Model, which includes land uses from the North Harbor Drive Mobility and Access Study and the Port Master Plan Update transportation studies. In addition, trip distribution for the proposed Granger Hall relocation was developed, based on the geographical location of the project, the characteristic of the proposed land use, the nearest freeway facilities, and the locations of residential neighborhoods. Figures 4.13-1 and 4.13-2 display the assumed trip distribution patterns associated with the proposed project. Based on the assumed project trip distribution as well as the anticipated project trip generation (Table 4.13-2), daily and AM/PM peak-hour project trips were

assigned to the surrounding roadway network. Figures depicting the trip assignments for the various project components are provided in Appendix K.

Travel Pattern Changes

The proposed project also includes components that would result in changes to existing travel patterns. The first of these is the closure of Tidelands Avenue between Bay Marina Drive and West 32nd Street (Pasha Road Closures Component) and the potential closure (or partial closure/narrowing) of Bay Marina Drive west of Marina Way. It should be noted that the proposed project also includes the closure of West 28th Street between Tidelands Avenue and Quay Avenue; however, this roadway would dead-end with the proposed closure of Tidelands Avenue and, therefore, would no longer be necessary for access to any existing or proposed uses.

To estimate the change in existing travel patterns with the closure of both Tidelands Avenue and Bay Marina Drive, a Select Link analysis was conducted using the SANDAG Series 13 Travel Demand Model. The analysis identified the trip assignments of vehicles traveling on the two roadways, then reassigned the trips to adjacent roadways.

The proposed project also includes construction of Segment 5 of the Bayshore Bikeway, which would convert McKinley Avenue to a one-way southbound roadway.

The roadway closures and conversion would cause a shift in existing travel patterns on the project site and a potential increase in VMT. Figures 4.13-3 through 4.13-5 display the redistribution of traffic resulting from the closure and conversion of the roadways. A description of the changes is provided below for each roadway.

Tidelands Avenue

The closure of Tidelands Avenue between Bay Marina Drive and West 32nd Street would redistribute the existing through traffic that currently uses this roadway segment to parallel roadways, such as Marina Way.

Bay Marina Drive

The closure, or partial closure, of Bay Marina Drive west of Marina Way would redistribute traffic to nearby roadways, such as Cleveland Avenue or Marina Way. This would reduce traffic on Bay Marina Drive/Mile of Cars Way and at the I-5 interchange; traffic would be redistributed to the Civic Center Drive interchange.

McKinley Avenue

The conversion of McKinley Avenue to southbound travel only would redistribute the northbound traffic to parallel facilities, such as Cleveland Avenue.

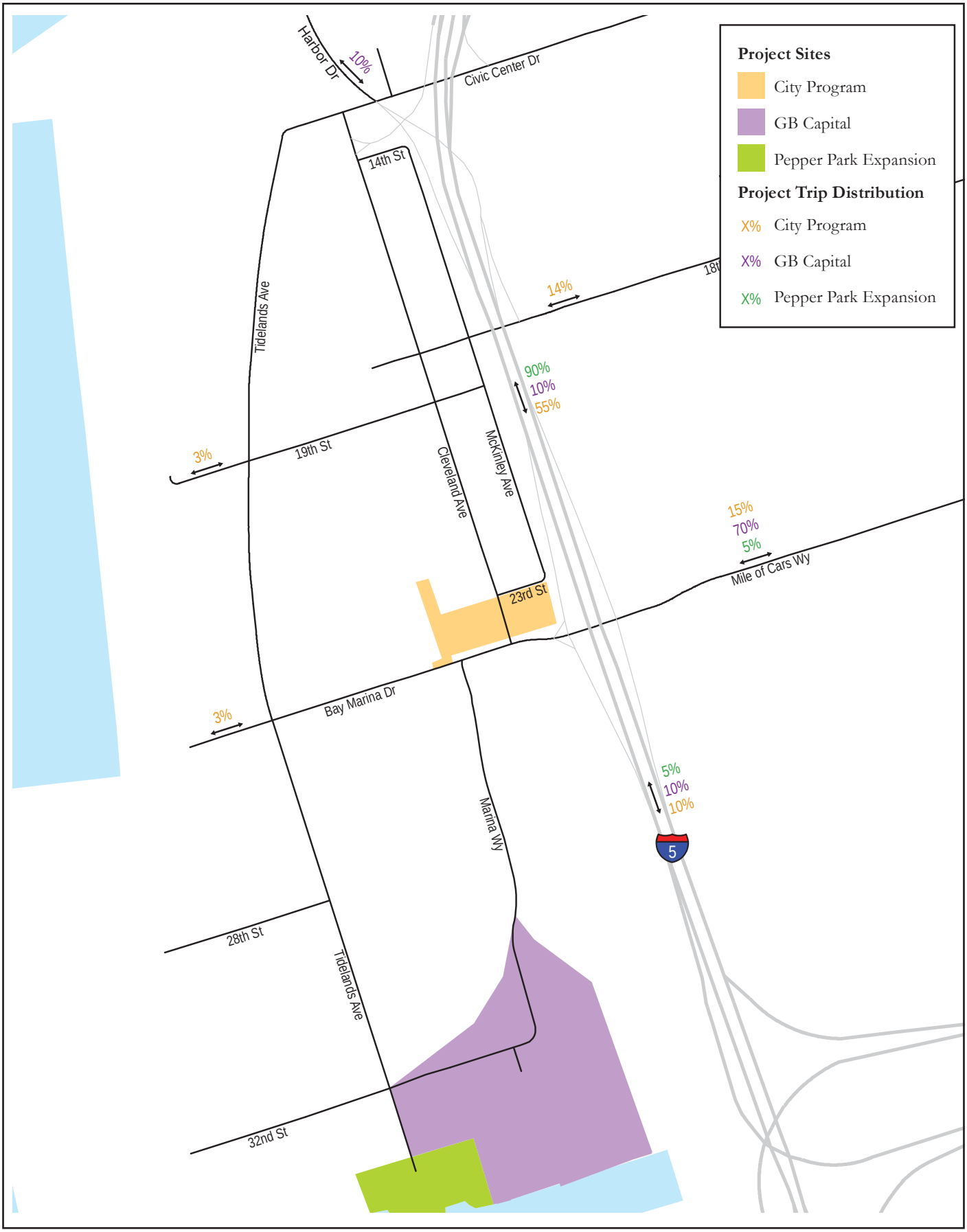

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Figure 4.13-1
Development Projects and District Public Improvements Trip Distribution National City Bayfront Projects & Plan Amendments EIR



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Figure 4.13-2
Granger Hall Trip Distribution
National City Bayfront Projects & Plan Amendments EIR

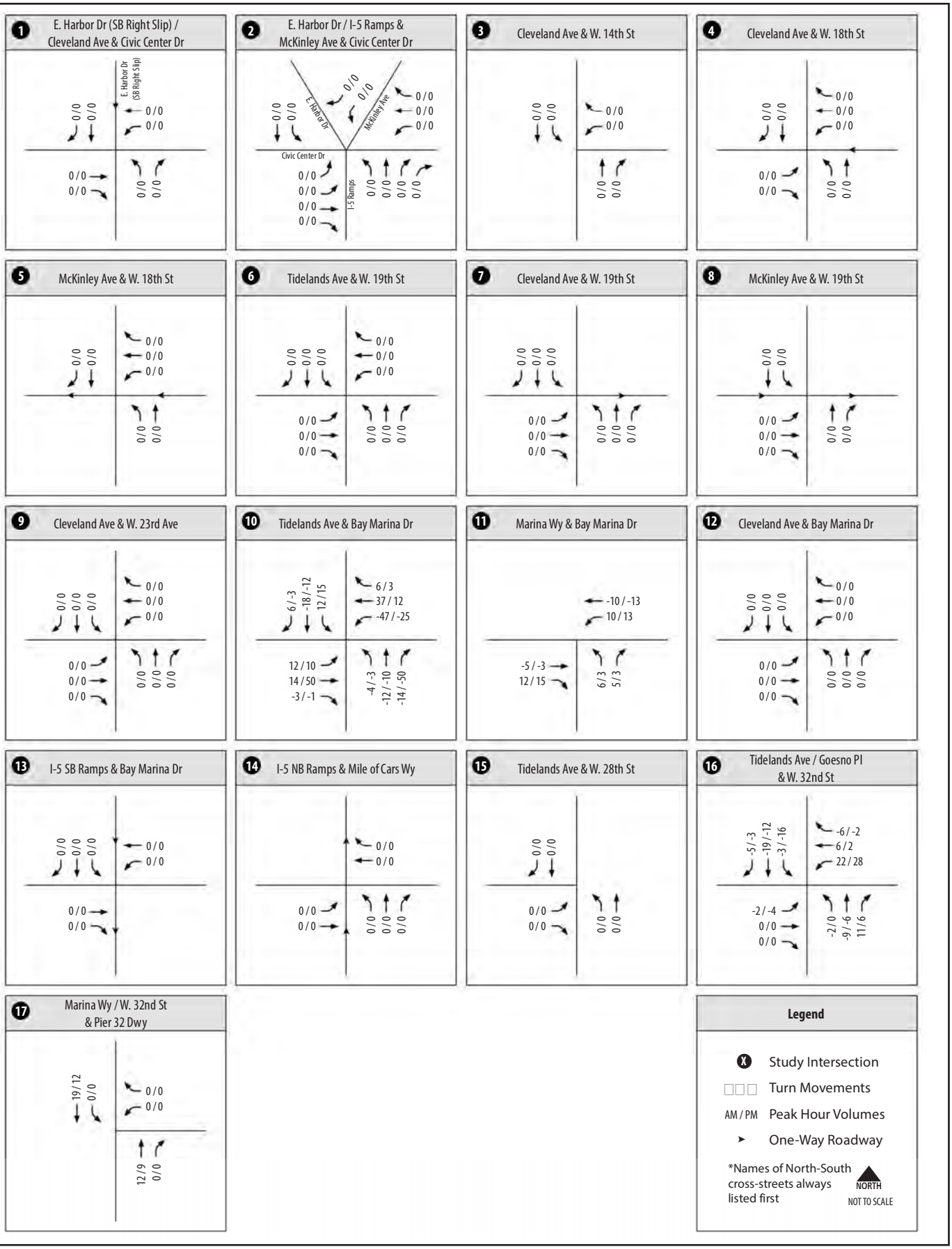

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Figure 4.13-3
Changes in Travel Patterns: Tidelands Avenue Closure
National City Bayfront Projects & Plan Amendments EIR

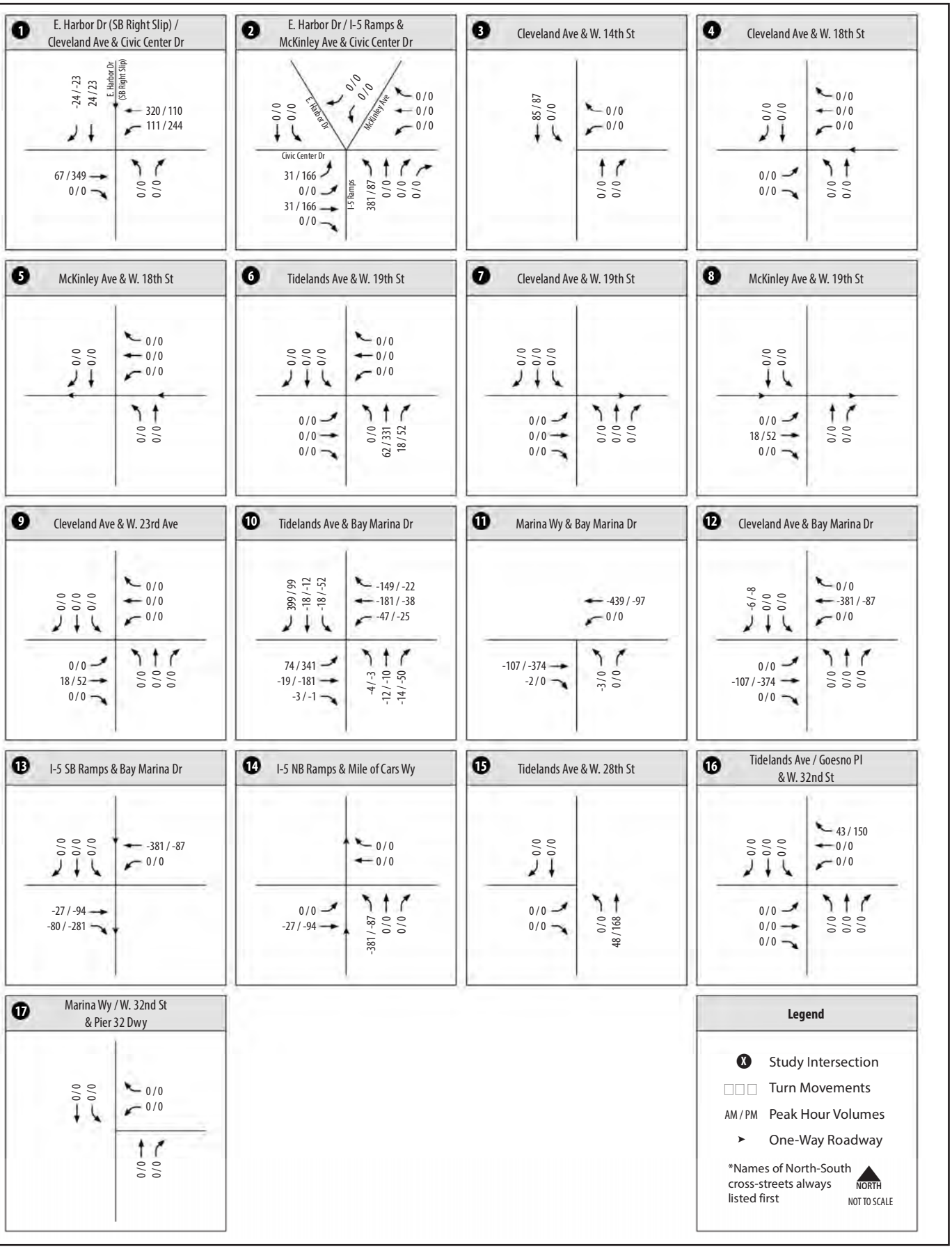

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Figure 4.13-4
Changes in Travel Patterns: Bay Marina Drive Closure
National City Bayfront Projects & Plan Amendments EIR

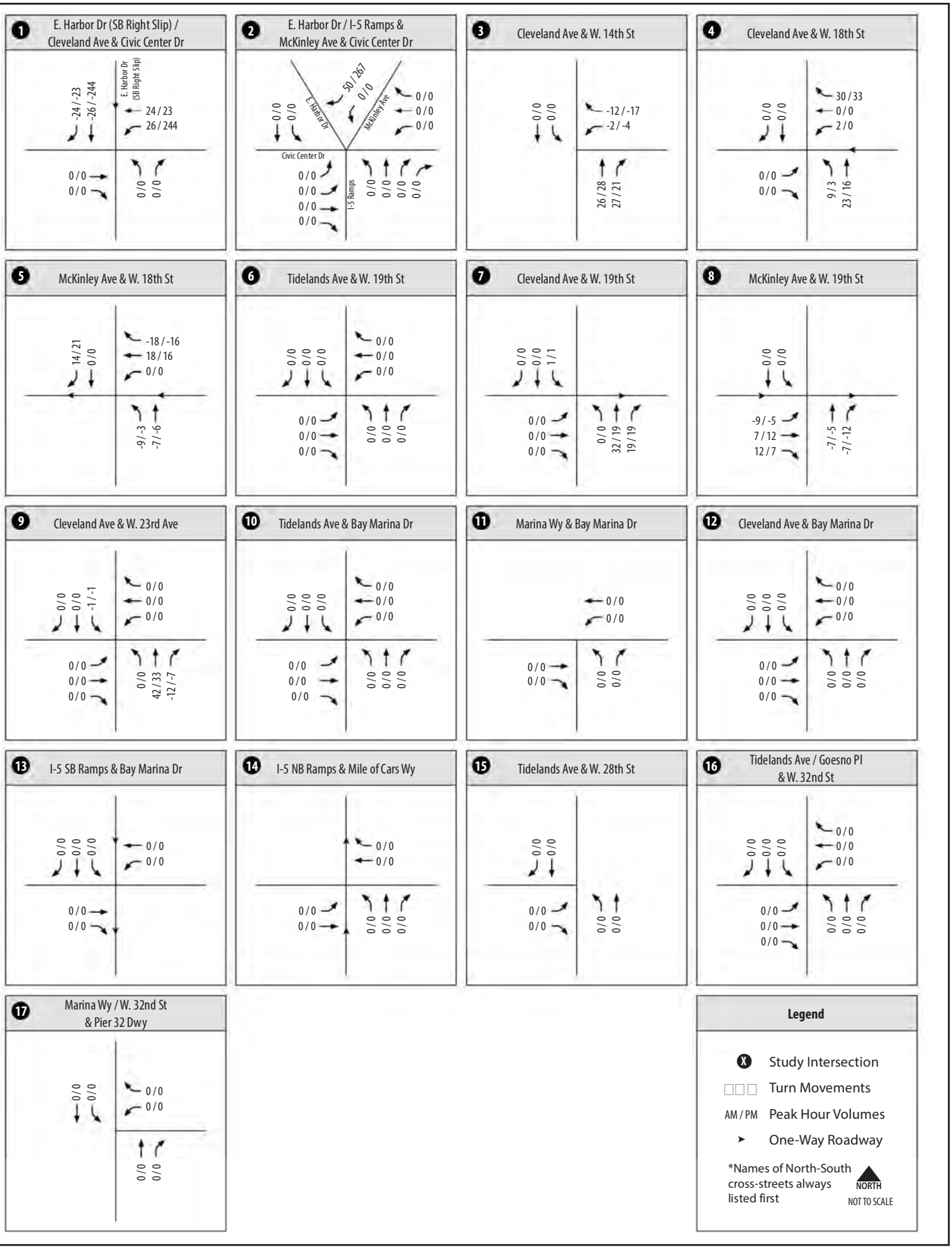

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Figure 4.13-5
Changes in Travel Patterns: McKinley Avenue Conversion
National City Bayfront Projects & Plan Amendments EIR

Table 4.13-2. Project Trip Generation

					AM				PM			
Component	Land Use	Units	Trip Rate	ADT	%	Trips	In	Out	%	Trips	In	Out
City Program – Development Component	High-Turnover Restaurant	15,500 sf	160/1,000 sf	2,480	8%	199	100	99	8%	199	119	80
	Resort Hotel[1]	150 rooms	8/room	1,200	5%	60	36	24	7%	84	34	50
	Specialty Retail	12,000 sf	40/1,000 sf	480	3%	15	9	6	9%	44	22	22
	City Program Total			4,160		274	145	129		327	175	152
GB Capital Component	Resort Hotel[1]	463 rooms	8/room	3,704	5%	186	74	112	7%	261	208	53
	Recreational Vehicle (RV)[2]	70 sites	4/site	280	4%	12	4	8	7%	23	16	7
	Specialty Retail	16,500 sf	40/1,000 sf	660	3%	20	8	12	9%	60	48	12
	Modules	60 sites	4/site	240	4%	10	6	4	8%	20	16	4
	Dry Boat Storage[3]	210 berths	1.48/berth	311	3%	10	3	7	7%	22	13	9
	Office	10,000 sf	14/1,000 sf	140	15%	21	19	2	15%	21	4	17
	Marina	95 berths	4/berth	380	3%	12	4	8	7%	27	16	11
	GB Capital Total			5,715		271	118	153		434	321	113
Balanced Plan[4]	City Parks	2.54 acres	50/acre	127	13%	17	9	8	9%	12	6	6
	Restaurant	6,760 sf	160/1,000 sf	1,082	8%	87	44	43	8%	87	52	35
Total				11,084		649	314	335		860	554	306

Source: Appendix K.

[1] The "Resort Hotel" use caters to tourists and the vacation industry, often providing a wide variety of recreational facilities rather than the conventional business meeting spaces. Resort hotels are normally located in suburban or outlying locations.

[2] Campground trip rate used for "Recreational Vehicle."

[3] Dry boat storage trip rate is based on 50% of ITE's *Trip Generation Manual* trip rate for the "Marina" land use. A reduced rate was applied because the boat storage would not generate regular trips, unlike a marina.

[3] The proposed changes to the National City Aquatic Center (Balanced Plan) would remove the restrictions on personal vehicle travel to the site. The traffic volumes associated with this use were analyzed and environmentally cleared in the adopted mitigated negative declaration prepared for the National City Aquatic Center and Port Master Plan Amendment Project (State Clearinghouse #2005121091). As such, these volumes are included in the base traffic volumes and not included in the new trip generation associated with the proposed project.

sf = square feet.

4.13.4.2 Thresholds of Significance

The following significance criteria, which are based on Appendix G of the State CEQA Guidelines, provide the basis for determining the significance of impacts on existing transportation, circulation, and parking conditions associated with the proposed project. The determination of whether a transportation, circulation, and parking impact would be significant is based on the professional judgment of the District as lead agency supported by the recommendations of qualified personnel at Chen Ryan Associates and ICF, all of which is based on evidence in the administrative record.

Impacts are considered significant if the proposed project would result in any of the following:

1. Conflict with an applicable program, plan, ordinance, or policy addressing the circulation system, including transit facilities, roadways, and bicycle and pedestrian facilities.
2. Conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b) (a definition of Section 15064.3 is in the threshold approach section, below).
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
4. Result in inadequate emergency access.
5. Result in an insufficient parking supply that would lead to a decrease in public coastal access.

Threshold Approach

Transportation

Section 15064.3 of the State CEQA Guidelines describes specific considerations for evaluating a project's transportation impacts and identifies VMT as the most appropriate metric for determining the significance of transportation impacts.

Section 15064.3(4) of the State CEQA Guidelines states:

> A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

To assist with identifying potential transportation impacts under Section 15064.3, OPR prepared a Technical Advisory that provides recommended thresholds for specific types of land use projects. Specifically, Section E.2 of the Technical Advisory (pages 16 and 17) provides recommended thresholds for the following applicable District land uses:[4]

[4] It should be noted that the Technical Advisory also provides threshold recommendations for residential land uses; however, because the District is prohibited from allowing residential land uses, the recommendations were excluded from this framework.

- **Retail.** A net increase in total VMT may indicate a significant transportation impact. Because new retail development typically redistributes shopping trips, estimating the total change in VMT (i.e., the difference in total VMT in the area affected with and without the project) is the best way to analyze a retail project's transportation impacts. The OPR Technical Advisory notes that local-serving retail development tends to shorten trips and reduce VMT and that lead agencies may generally presume that such development results in less-than-significant transportation impacts. Generally, however, retail development, including stores larger than 50,000 square feet, might be considered regional serving, which can lead to the substitution of longer trips for shorter ones and increase VMT. As such, the OPR Technical Advisory notes that such projects could result in a significant VMT impact.
- **Other Land Uses:** Of all land use projects, residential, office, and retail projects tend to have the greatest influence on VMT. For that reason, OPR recommends the quantified thresholds described above for purposes of analysis and mitigation. Lead agencies, using more location-specific information, may develop their own specific thresholds, which may include other land use types. In developing thresholds for other project types, or thresholds different from those recommended in the Technical Advisory, lead agencies should consider the purposes described in Section 21099 of the Public Resources Code and regulations in the State CEQA Guidelines on the development of thresholds of significance (e.g., State CEQA Guidelines, Section 15064.7).

There are several lands uses within the District's jurisdiction that are not covered in the thresholds outlined above. Using the guidance provided under the Other Land Uses category, the District is implementing thresholds for the following user groups:

- **Non-Commercial Employees:** This group includes employees under the District's jurisdiction who do not work in commercial offices or retail establishments, both of which are addressed in the Technical Advisory. Most of the employment groups within the District have very similar travel patterns and trip generation rates, regardless of use. Therefore, the average VMT-per-employee rates for these uses were compared to the average non-commercial VMT-per-employee rate at the regional level. If the District's average VMT-per-employee rate is less than 15% below the existing regional VMT-per-employee rate (i.e., if the project's average VMT per employee is greater than 85% of average VMT per employee within the region), that would indicate a significant transportation-related impact. See Table 4.13-3 for clarification regarding which land use would be applicable for this category.
- **Freight:** Neither the SB 743 legislation nor the OPR Technical Advisory mentions freight. Consequently, no guidance is provided regarding what is an appropriate approach and threshold to use for determining significance.

  Because freight VMT is based on the supply of and demand for various goods throughout the state and nation, freight VMT typically cannot be lowered through standard TDM measures, local land use patterns, or VMT reduction strategies that can be applied to land use projects. However, the project would not change freight operations in the study area; therefore, freight VMT impacts would be less than significant, and no additional VMT analysis is required.

Table 4.13-3 provides a summary of the land uses associated with the proposed project, the recommended metric that would be used to evaluate their potential transportation-related impact, and the recommended impact threshold.

Table 4.13-3. Evaluation Criteria and Impact Thresholds by Land Use

Land Use	Evaluation Criteria	Recommended Impact Threshold
Hotel	VMT per employee	15% below regional average
Office	VMT per employee	15% below regional average
Retail	VMT with vs. without proposed retail change	No increase in regional VMT
Restaurant	VMT with vs. without proposed retail change	No increase in regional VMT
Marine Terminal	VMT per employee	15% below regional average
Recreation	VMT with vs. without proposed recreation change	No increase in regional VMT

Source: Appendix L.

Table 4.13-4 categorizes the three operational trip-generating components of the proposed project (as described above in Section 4.13.4.1) and identifies the appropriate evaluation criteria and impact thresholds.

Table 4.13-4. Evaluation Criteria and Impact Thresholds by Project Component

Project Component	Land Use	Evaluation Criteria and Impact Threshold		
		Land Use	Evaluation Criteria	Impact Threshold
Development Projects				
City Program–Development Component	High-Turnover Restaurant	Restaurant	VMT with vs. without proposed retail change	No increase in regional VMT
	Resort Hotel	Hotel	VMT per employee	15% below regional average
	Specialty Retail	Retail	VMT with vs. without proposed retail change	No increase in regional VMT
GB Capital Component	Resort Hotel	Hotel	VMT per employee	15% below regional average
	Recreational Vehicle (RV)	Recreation	VMT with vs. without proposed recreation change	No increase in regional VMT
	Specialty Retail	Retail	VMT with vs. without proposed retail change	No increase in regional VMT
	Modules	Recreation	VMT with vs. without proposed recreation change	No increase in regional VMT
	Dry Boat Storage	Recreation	VMT with vs. without proposed recreation change	No increase in regional VMT
	Office	Office	VMT per employee	15% below regional average
	Marina	Marine Terminal[1]	VMT per employee	15% below regional average

Project Component	Land Use	Evaluation Criteria and Impact Threshold		
		Land Use	Evaluation Criteria	Impact Threshold
District Public Improvements				
Pepper Park Expansion	City Parks	Recreation	VMT with vs. without proposed recreation change	No increase in regional VMT

Source: Appendix L.
[1] The "Marine Terminal" land use was assigned to the marina expansion proposed as part of the GB Capital Component to capture the VMT generated by new marina employees.

Pedestrian, Bicycle, and Transit

Potential impacts on pedestrian, bicycle, and transit circulation and facilities would be considered significant if the proposed project would substantially increase hazards due to a geometric design feature or the introduction of incompatible uses or conflict with the adopted programs, plans, ordinances, or policies that support alternative transportation, as outlined in Appendix G of the State CEQA Guidelines.

Parking and Public Access

A significant parking and public access impact would occur if the proposed project would result in an insufficient parking supply that, when considered with other modes of travel (e.g., bicycling, walking, transit use), would reduce the general public's access to the waterfront as well as coastal commercial and recreational resources. The determination of whether the proposed project would result in an insufficient parking supply, and thereby reduce public coastal access, relies on the standards in the District's Tidelands Parking Guidelines, the City's Municipal Code (Sections 18.24.080 and 18.45.050), and the ITE *Parking Generation Manual*.

4.13.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project <u>would not</u> conflict with an applicable program, plan, ordinance, or policy addressing the circulation system, including transit facilities, roadways, and bicycle and pedestrian facilities.

Impact Discussion

The City's General Plan contains policies related to maintaining an acceptable LOS—specifically, Policy C-2.3, which is focused on maintaining an LOS of D or better for traffic operations. As such, the degradation of traffic operations to an unacceptable LOS (i.e., LOS E or LOS F) would be inconsistent with Policy C-2.3 of the City's General Plan. However, with the adoption of SB 743, a project's effect on automobile delay no longer constitutes a significant environmental impact under CEQA (State CEQA Guidelines Section 15064.3). Therefore, the inconsistency with the City's General Plan, as it relates to delay-based traffic-operation metrics, is provided for informational purposes only (Appendix K) and does not constitute a significant impact on the environment. To address issues related to the change from LOS to VMT, as required by SB 743, the City issued a memo in August 2020 that provided recommendations and clarification as to the approach project applicants within the City's jurisdiction should use in evaluating transportation-related impacts. The memo recommended that project applicants use the new *Guidelines for Transportation Impact Studies in the*

San Diego Region, May 2019, which provides methodologies for transportation engineers and planners to use when conducting CEQA transportation analyses for land development and transportation projects, in compliance with SB 743. The City memorandum is provided in Appendix M. Therefore, analysis for consistency with Policy C-2.3 of the City's General Plan is no longer applicable.

Consistency with Applicable Programs, Plans, Ordinances, or Policies Related to Pedestrian, Bicycle, and Transit Facilities

An impact on pedestrian, bicycle, and transit facilities would occur if the proposed project would conflict with an applicable program, plan, ordinance, or policy concerning these facilities. There are no transit facilities within the traffic study area. The closest transit station is the 24th Street station immediately east of I-5 on the corner of West 22nd Street and Wilson Avenue. The 24th Street station is approximately 0.2 mile (walking distance) from the closest project component (i.e., the City Program – Development Component) and approximately 1.2 miles (walking distance) from farthest project component (i.e., Pepper Park expansion and reconfiguration, which is part of the Balanced Plan). There are currently no MTS bus routes within the project's traffic study area; the closest bus stop is at the 24th Street station. The proposed project would not result in any changes to the aforementioned transit facilities.

Pedestrian facilities (i.e., sidewalks) are currently provided on Tidelands Avenue, Bay Marina Drive, and Cleveland Avenue, which have sidewalks on both sides of the roadway within the traffic study area. In addition, there is a sidewalk on the east side of Marina Way. Bicycle facilities are also currently provided on Tidelands Avenue, which has bicycle lanes on both sides of the roadway, and West 32nd Street, which has "sharrows," or shared lanes, on both sides of the roadway. These facilities are part of an interim alignment of the Bayshore Bikeway, a 24-mile facility that runs along San Diego Bay. The proposed project includes several components that would physically alter the existing roadway network at the project site, as follows:

- Closure of Tidelands Avenue between Bay Marina Drive, on the north, and West 32nd Street, on the south, as well as West 28th Street between Tidelands Avenue and Quay Avenue (Pasha Road Closures Component).
- Realignment of Marina Way (part of the Balanced Plan).
- Closure of West 32nd Street east of Tidelands Avenue (part of the Balanced Plan).
- Potential narrowing or closure (to through traffic) of Bay Marina Drive at Marina Way (part of the City Program – Development Component).
- Closure of the southern half of Goesno Place (part of the Balanced Plan).
- Shift the southern terminus of Tidelands Avenue (part of the Balanced Plan).

The closure of Tidelands Avenue between Bay Marina Drive and West 32nd Street would remove both existing sidewalks and bike lanes. The facilities would no longer be available for public use because the area would be used for marine terminal–related operations. In addition, the closure of West 32nd Street east of Tidelands Avenue would remove the shared bicycle lanes that are currently provided on that roadway. No other existing pedestrian or bicycle facilities would be removed as part of the proposed project. In addition, the proposed project would implement Segment 5 of the Bayshore Bikeway, which would provide a separated bicycle facility on McKinley Avenue and (generally) Marina Way that would provide a connection to the regional bikeway network. As noted

in Section 4.13.3.3, *Local,* the Bayshore Bikeway is one of the regional bikeway projects identified in SANDAG's Regional Bike Plan and the City's Bicycle Master Plan. As such, the proposed project would help implement these plans. It should be noted that all three proposed routes for the Bayshore Bikeway Component differ from the alignment currently identified in the City's Bicycle Master Plan. However, the proposed project includes an amendment to the Bicycle Master Plan to reflect realignment of the Bayshore Bikeway. Therefore, the proposed project would not conflict with an applicable program, plan, ordinance, or policy concerning pedestrian, bicycle, and transit facilities. Impacts would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not conflict with an applicable program, plan, ordinance, or policy concerning the circulation system, including transit facilities, roadways, and bicycle and pedestrian facilities. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Impacts would be less than significant.

Threshold 2: Implementation of the proposed project would conflict with or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b).

Impact Discussion

Construction

Construction activities associated with the proposed project would include primarily grading, paving, and building construction, along with some in-water work. It is anticipated that construction workers would be drawn primarily from existing residents of National City and the surrounding area. As such, construction-worker VMT associated with the proposed project would not be newly generated VMT but, rather, redistributed VMT (i.e., VMT would be redistributed throughout the transportation network as workers travel to different work sites each day). As such, construction-worker VMT is merely a redistribution of VMT that would otherwise be generated at other construction sites throughout the region.

Notably, the goals of SB 743, as stated in the legislative text, include reducing greenhouse gas emissions and traffic-related air pollution, promoting the development of multimodal transportation systems, and providing clean, efficient access to destinations. The legislative text of SB 743 further states that it is the intent of the legislature to balance the need for LOS standards for traffic with the need to build infill housing and mixed-use commercial developments within walking distance of mass-transit facilities, downtown areas, and town centers. Therefore, based on the legislative intent of SB 743, which focuses on long-term VMT reductions through smart growth and planning, the temporary generation of VMT from construction traffic is not expected to increase VMT substantially in the region such that it would contribute to long-term adverse environmental effects from increases in greenhouse gas and criteria pollutant emissions or hinder the promotion of

multimodal transportation systems or implementation of clean, efficient access to destinations. Therefore, it is anticipated that construction-related VMT impacts would be less than significant.

Operation

Operation of the various components of the proposed project, including new hotel, restaurant, retail, office, and marina uses, as well as an expanded park, would generate VMT from the addition of new long-term employment opportunities and visitors. Table 4.13-5 provides a comparison between the proposed project's VMT and both the base-year regional average and 2050 regional average. It should be noted that the base-year regional average comparison is provided for informational purposes only and is not used to determine the significance of VMT impacts associated with the proposed project. As such, the impact analysis is based on the 2050 regional average, which is more conservative because of its lower VMT per employee associated with planned transit and telecommuting features. Consistent with the OPR Technical Advisory, the significance threshold for employment-based VMT is 15% below the 2050 regional average, as provided in Table 4.13-5.

Table 4.13-5. VMT Impact Analysis Results

Metric	VMT per Employee (miles/person)
Base-Year Regional Average	25.9
Adjusted Base-Year Regional Average[1]	22.0
Proposed Project	22.6
Proposed Project vs. Adjusted Base-Year Regional Average[2]	0.6
2050 Regional Average	22.2
Significance Threshold[1]	18.9
Proposed Project	22.6
Proposed Project vs. Significance Threshold	3.7 miles over threshold (1.8% above 2050 regional average)
Significant Impact?	Yes

Source: Appendix L.
[1] This is 15% below the San Diego regional average.
[2] Comparison provided for informational purposes only.

As shown in Table 4.13-5, the employment uses associated with the proposed project (GB Capital Component, City Program – Development Component) do not achieve a VMT reduction that would be 15% below the 2050 regional average. Therefore, employment uses associated with the proposed project would result in a significant VMT impact (**Impact-TRA-1**). However, the City Program – Development Component is considered a transit-oriented development (TOD). A TOD is a project in a compact, walkable area that has easy access to public transit—ideally, in a location with a mix of uses. In addition, with respect to pedestrians, TODs are within 10 minutes of a high-frequency rail transit station. The City Program – Development Component is adjacent to the 24th Street trolley station, approximately 0.25 mile away (walking distance). The proximity to the trolley station would result in a 4.7% reduction in employee VMT under the City Program – Development Component.

For the proposed project's retail component, it is anticipated that the retail uses would be local-serving uses. According to the OPR Technical Advisory, local-serving retail development could shorten vehicle trips and reduce VMT by diverting existing trips from existing retail to the new local retail without increasing the number of trips outside the local area. As a result, local-serving retail is generally presumed to result in less-than-significant VMT impacts. However, regional-serving retail

development, generally defined as 50,000 square feet or more of retail space, can lead to the substitution of longer trips for shorter ones and increase VMT. As such, the Technical Advisory notes that such projects could result in a significant VMT impact.

The City Program – Development Component and GB Capital Component both include retail uses and/or recreational uses. For the City Program – Development Component, approximately 12,000 square feet of retail is proposed, while the GB Capital Component proposes approximately 16,500 square feet of retail space. Even when the square footage for these separate retail components are combined (i.e., 28,500 square feet), they would be substantially below OPR's definition of regional-serving retail (i.e., 50,000 square feet). As such, it is anticipated that the proposed retail uses for both components would be local-serving uses. Therefore, it is anticipated that VMT impacts associated with the retail uses would be less than significant.

The Bay Marina Drive closure (closed to through traffic at Marina Way) would result in changes to the transportation network and the redistribution of traffic in the study area. The State CEQA Guidelines indicate that a VMT analysis should be conducted for transportation projects, including roadway capacity projects. For roadway capacity projects, agencies have the discretion to determine the appropriate measure of transportation impact, consistent with CEQA and other applicable requirements. The Technical Advisory also refers to the potential for induced travel and its associated effects. Induced travel occurs when improvements to a roadway facility enhance traffic operations and/or relieve congestion to the extent that travelers have a greater incentive to make a vehicular trip in lieu of utilizing a different mode of travel or not taking the trip at all. The closure of Bay Marina Drive (to through traffic at Marina Way) would require trips to and from the terminal to exit the I-5/Civic Center Drive interchange instead of the I-5/Bay Marina Drive interchange. This would increase the study area's total VMT by 1.7 miles. As such, the VMT impacts associated with induced travel from the closure of Bay Marina Drive would result in a significant VMT impact (**Impact-TRA-2**).

Level of Significance Prior to Mitigation

Implementation of the proposed project would have the potential to be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b). Potentially significant impact(s) are listed below.

Impact-TRA-1: Generate Vehicle Miles Traveled in Exceedance of Employment-Based Thresholds During Project Operations (Phase 1 and Phase 2 of GB Capital Component, City Program – Development Component). Employment associated with operation of the proposed project would not reduce VMT to 15% below the 2050 regional average. Therefore, employment uses associated with the proposed project (GB Capital Component, City Program – Development Component) would have a significant VMT impact.

Impact-TRA-2: Induced Travel and Increased Vehicle Miles Traveled from the Closure of Bay Marina Drive to Through Traffic at Marina Way (City Program – Development Component). The proposed closure of Bay Marina Drive (to through traffic at Marina Way) would result in changes to the transportation network and a redistribution of traffic in the study area. The closure of Bay Marina Drive (to through traffic at Marina Way) would require trips to and from the terminal to exit the I-5/Civic Center Drive interchange instead of the I-5/Bay Marina Drive interchange. This would increase the study area's total VMT by 1.7 miles. As such, the VMT impacts associated with induced travel from the closure of Bay Marina Drive would result in a significant VMT impact.

Mitigation Measures

For **Impact-TRA-1**:

MM-TRA-1: Implement TDM and VMT Reduction Measures (GB Capital Component, City Program – Development Component). To reduce VMT generated by employee trips, the project proponent (GB Capital and City) shall implement the following TDM and VMT reduction measure from the SANDAG Mobility Management Toolbox, using the VMT Reduction Calculator Tool (SANDAG 2019b), starting the first day of project operations for the GB Capital Component and City Program – Development Component.

- Mandatory Employer Commute Program – The employer for the GB Capital Component and City Program – Development Component shall offer and pay for an employer commute-trip reduction program, which may include a carpool program, transit subsidy passes, or a vanpool program. Implementing these measures could result in a 2.6% reduction in the project's employee VMT.

For **Impact-TRA-2**:

MM-TRA-2: Implement TDM Plan (City Program – Development Component [Closure of Bay Marina Drive]). Prior to the closure of Bay Marina Drive, the City shall create a TDM plan and submit it to the City's Community Development Department for review and approval and then implement the TDM plan, which shall provide incentives for surrounding developments to use alternative modes of transportation instead of individual vehicles.

Level of Significance After Mitigation

Impact-TRA-1

Employee trips associated with operation of the proposed project (GB Capital Component, City Program – Development Component) would generate additional VMT and exceed identified thresholds (**Impact-TRA-1**). As shown in Table 4.13-5, the proposed project would need to reduce employment-based VMT by 3.7 miles to get below the 2050 regional-average significance threshold of 18.9 miles. Implementation of the TDM and VMT reduction measures from the SANDAG Mobility Management Toolbox, as required by implementation of **MM-TRA-1**, would reduce employment-based VMT generated during project operations. However, despite implementation of these measures, employment-based VMT generated by the proposed project (GB Capital Component, City Program – Development Component) would be reduced by only approximately 1.7 miles (22.6 miles × 7.3%), which is less than the 3.7-mile reduction needed to get below the 2050 regional-average significance threshold. As such, the proposed project's VMT would not be reduced below the applicable threshold, despite implementation of **MM-TRA-1**. Therefore, **Impact-TRA-1** would be significant and unavoidable after mitigation.

Impact-TRA-2

The proposed closure of Bay Marina Drive (to through traffic at Marina Way) would result in changes to the transportation network that would induce travel and increase the study area's total VMT by 1.7 miles (**Impact-TRA-2**). Implementation of **MM-TRA-2** could be enough to reduce the study area's induced-travel VMT by 1.7 miles or more; however, it is not guaranteed that the employment trip-reduction measures would be effectively executed and total VMT for the study

area would be reduced to a level below no-project conditions. Therefore, **Impact-TRA-2** would be significant and unavoidable after mitigation.

Threshold 3: Implementation of the proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact Discussion

Pedestrian facilities (i.e., sidewalks) are currently provided on Tidelands Avenue, Bay Marina Drive, and Cleveland Avenue, which have sidewalks on both sides of the roadway. In addition, there is a sidewalk on the east side of Marina Way. Bicycle facilities are provided on Tidelands Avenue, which has bicycle lanes on both sides of the roadway, and West 32nd Street, which has "sharrows," or shared lanes, on both sides of the roadway. These facilities are part of an interim alignment of the Bayshore Bikeway.

The project proposes several transportation improvements, including partial and/or full road closures and roadway realignments. The following components of the proposed project would physically alter the existing roadway network at the project site:

- Closure of Tidelands Avenue between Bay Marina Drive, on the north, and West 32nd Street, on the south, and West 28th Street between Tidelands Avenue and Quay Avenue (Pasha Road Closures Component).
- Closure of West 32nd Street east of Tidelands Avenue (part of the Balanced Plan).
- Potential narrowing or closure (to through traffic) of Bay Marina Drive at Marina Way (part of the City Program – Development Component).
- Shifting the southern terminus of Tidelands Avenue to the east, identified as "proposed/new Road D1" in Figure 3-4 (part of the Balanced Plan).
- Closure of the southern half of Goesno Place south of West 32nd Street to vehicular traffic and relocation of the northern portion of the road to the east, identified as "proposed/new Road D2" in Figure 3-4 (part of the Balanced Plan).
- Realignment of Marina Way to form a curve that rounds out to the west when traveling toward the Balanced Plan area and connects to the proposed new park entrance (proposed/new Road D1). The realigned Marina Way right-of-way, which would be approximately 70 feet wide, is identified as "proposed/new Road D3" in Figure 3-4 (part of the Balanced Plan).

Based on the October 2017 review of the project site plan and conditions in the field by Chen Ryan Associates, Inc. (a professional transportation planning and engineering firm), the proposed project would not conflict with any existing or proposed pedestrian, bicycle, or transit facilities. It is not anticipated that the driveways for the development projects (i.e., GB Capital Component and City Program – Development Component) would conflict with existing sidewalks or bike facilities, and the project components that would alter the roadway network (identified in the list above) would still provide access for pedestrians and bicyclists. In addition, the project proposes to improve bicycle facilities by constructing the Bayshore Bikeway Component; as part of this project, three potential routes are being evaluated. Route 1 would travel along the former railroad right-of-way to the southern end of the Best Western Marina Gateway Hotel where it would turn west to travel

along the west side of Marina Way. This route would turn east on West 23rd Street and then north onto McKinley Avenue. Route 2 would travel along the existing rail alignment from West 32nd Street to the southern end of the West Western Marina Gateway Hotel where it would turn east in the hotel parking lot, turn north between the two buildings on the hotel property, cross Bay Marina Drive, and travel north along Cleveland Avenue to West 19th Street. Route 2 would turn west on West 19th Street, then north on Tidelands Avenue. Route 3, the preferred route of the City, would travel between the former railroad right-of-way and existing Marina Way on the southern end and along McKinley Avenue on the northern end. In addition, Route 3 would travel along Bay Marina Drive between Marina Way and McKinley Avenue and then turn north on McKinley Avenue. Route 3 would convert McKinley Avenue to a one-way southbound roadway to accommodate the proposed bicycle facility and modify the East Harbor Drive/Civic Center Drive intersection to remove the southbound free right-turn movement. The Bayshore Bikeway Component would create a safer environment for bicyclists and provide a connection to the regional bikeway system. Furthermore, any proposed new driveways, new roadways (Roads D1 and D2), and realigned roadways (Road D3) would require a review by the City's traffic engineer, as well as review and approval by the District Engineer or his or her designee, to ensure that the proposed project would not result in hazardous design features (e.g., inadequate site distances). Therefore, impacts would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Impacts would be less than significant.

Threshold 4: Implementation of the proposed project would not result in inadequate emergency access.

Impact Discussion

Construction

The proposed project includes various components that would be constructed over two phases, spanning several years. During certain construction activities, roadways within and surrounding the project site may be partially or completely closed to traffic because of large equipment, material deliveries, or work within the right-of-way. Road blockages could prevent emergency response vehicles from accessing parts of the project site or surrounding vicinity, thereby resulting in inadequate emergency access. Because the exact timing, potential for overlap, and specific construction details associated with these components were unknown at the time of this analysis, construction activities associated with proposed project could overlap and result in inadequate emergency access, which would be a significant impact (**Impact-TRA-3**).

Operation

Once full project buildout is complete, operation of the proposed project could result in in inadequate emergency access. The proposed project includes several transportation improvements that would physically alter the existing roadway network at the project site. Roadways that could be affected include Tidelands Avenue, West 28th Street, West 32nd Street, Marina Way, Bay Marina Drive, and Goesno Place. These roadways would be subject to partial and/or full closures as well as realignment.

The National City Tsunami Evacuation Route (City n.d.) includes the northern portion of Tidelands Avenue between 19th Street and Civic Center Drive, Bay Marina Drive/24th Street heading east from Tidelands Avenue, 19th Street heading east from Tidelands Avenue, Civic Center Drive heading east, and 8th Street heading east. The only tsunami evacuation route that would be affected by the proposed project is the evacuation route on Bay Marina Drive/24th Street, heading east from Tidelands Avenue. This tsunami evacuation route could be unavailable if the City closes Bay Marina Drive (to through traffic at Marina Way), which is one of the roadway options that is part of the City Program – Development Component; this is a potentially significant impact, and mitigation is required (**Impact-TRA-4**). Implementation of **MM-TRA-4** would ensure the identification of an alternate tsunami evacuation route prior to closure of Bay Marina Drive (to through traffic at Marina Way).

Although Tidelands Avenue would be closed to the public between Bay Marina Drive, on the north, and the existing alignment of West 32nd Street, on the south, marine terminal operations would still be accessible via Bay Marina Drive. Currently, emergency vehicles are able to access Pepper Park using Tidelands Avenue. The closure of Tidelands Avenue between Bay Marina Drive, on the north, and West 32nd Street, on the south, and West 28th Street between Tidelands Avenue and Quay Avenue would have the potential to result in inadequate emergency access during operation (**Impact-TRA-5**). However, **MM-HAZ-9**, as described in Section 4.7, *Hazards and Hazardous Materials*, would require coordination with the City Fire Marshal to ensure that necessary features would be included as part of the Pasha Road Closures Component, such as an emergency access road, entrance/exit gates, and fire hydrants.

The City Program – Development Component would also include the potential closure, or narrowing, of Bay Marina Drive (west of Marina Way) to through vehicular traffic. Changes to Bay Marina Drive may include keeping the road in its present condition with four lanes (two each way), reducing the four lanes to two lanes (one each way), or closing the road to through traffic. The potential narrowing or closure of Bay Marina Drive could reduce public access to and from the project site and result in inadequate access for emergency vehicles (**Impact-TRA-6**). However, public and emergency access would still be available along Marina Way, and emergency access would be available along Tidelands Avenue, allowing emergency vehicles to access the site. Furthermore, implementation of **MM-HAZ-10**, as described in Section 4.7, *Hazards and Hazardous Materials*, would require coordination with City Fire Marshal if the Marina Bay Drive closure option is selected. Implementation of **MM-HAZ-10** would ensure that an emergency access road would be provided for emergency vehicles.

The realignment of Marina Way (Balanced Plan) has the potential to result in inadequate emergency access during operation through the installation of traffic-calming devices (**Impact-TRA-7**). However, implementation of **MM-HAZ-11**, as described in Section 4.7, *Hazards and Hazardous*

Materials, would ensure that any traffic-calming devices incorporated into the realignment Marina Way would be approved by the City Fire Marshal.

Closure of the southern half of Goesno Place would remove one vehicular access point into Pepper Park. The main entrance to Pepper Park ("Proposed Road D1," as shown in Figure 3-4), which is currently south of the Tidelands Avenue/West 32nd Street intersection, would be moved to the east; therefore, access to Pepper Park would be maintained. In addition, there would still be access within the northeast portion of Pepper Park (south of "Proposed Road D2," as shown in Figure 3-4), but it would be limited to pedestrians, bicycles, and emergency vehicles. Marina Way would be realigned to connect to the new park entrance ("Proposed Road D1," as shown in Figure 3-4), and "Proposed Road D2" would provide vehicular access to the GB Capital/Pier 32 Marina site from the realigned Marina Way ("Proposed Road D3," as shown in Figure 3-4). Emergency response vehicles would be able to use new roads D1 and D2 to access the project site. Similarly, the proposed realignment of Marina Way would alter the design of the roadway but would not prevent emergency vehicle access to the project site or surrounding vicinity. In addition, the Balanced Plan of the proposed project includes a north–south public access corridor, allowing visual, pedestrian, bicycle, and emergency vehicle access within the existing alignment of Marina Way. The primary users of the north–south public access corridor would be pedestrians and bicyclists; no vehicular parking, permanent structures, or other impediments to access would be allowed. Furthermore, the project proposes an east–west public access corridor, allowing visual, pedestrian, bicycle, and emergency vehicle access within the existing alignment of West 32nd Street. Similar to the proposed north–south public access corridor, no vehicular parking, permanent structures, or other impediments to access would be allowed within this proposed corridor. Under the GB Capital Component, the existing alignment of Marina Way would provide a public access corridor for pedestrians and bicyclists; however, it would also serve as a driveway for the occasional car or RV. The existing alignment of West 32nd Street would provide a 24-foot-wide view corridor within a parking area, a drive aisle, and an approximately 6-foot-wide sidewalk.

The proposed road closures and realignments would change circulation patterns within and surrounding the project site, which would result in inadequate emergency access. Impacts would be significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would result in inadequate emergency access. Potentially significant impact(s) include the following:

Impact-TRA-3: Inadequate Emergency Access from Temporary Road Closures During Project Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component). Lanes and/or entire roadways may be closed during construction for each of the project components because of equipment, material deliveries, or construction activities within the right-of-way. Blocked roadways could prevent access to the project site or surrounding vicinity by emergency vehicles. Impacts would be significant.

Impact-TRA-4: Removal of Tsunami Evacuation Routes from the Closure of Bay Marina Drive to Through Traffic at Marina Way (City Program – Development Component). The existing tsunami evacuation route on Bay Marina Drive/24th Street, heading east from Tidelands Avenue, could be unavailable if the City closes Bay Marina Drive to through traffic at Marina Way, which is

one of the roadway options that is part of the City Program – Development Component. Impacts would be significant.

Impact-TRA-5: **Inadequate Emergency Access from the Closure of Tidelands Avenue During Operation (Pasha Road Closures Component).** Closure of Tidelands Avenue between Bay Marina Drive, on the north, and West 32nd Street, on the south, and West 28th Street between Tidelands Avenue and Quay Avenue may result in inadequate emergency access during operation. Impacts would be significant.

Impact-TRA-6: Inadequate Emergency Access from the Closure of Bay Marina Drive (City Program – Development Component). Closure of Bay Marina (to through traffic at Marina Way) may result in inadequate emergency access during operation. Impacts would be significant.

Impact-TRA-7: Inadequate Emergency Access from Marina Way Realignment (Balanced Plan). The implementation of traffic calming devices along the realigned Marina Way may result in inadequate emergency access during operation. Impacts would be significant.

Mitigation Measures

For **Impact-TRA-3**:

MM-TRA-3: Implement Traffic Control Measures During Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component). For any project components that temporarily require partial and/or full roadway closures during construction, the project proponent [requiring the partial or full roadway closure(s)] shall require its contractor to plan, use, place, and maintain traffic control devices while in use at the construction site to ensure that adequate emergency access is provided throughout the duration of the road closure. If construction activities require blocking of a traffic lane(s), the project proponent shall require its contractor to use a flashing arrow board during daytime hours; however, a solar flashing arrow board shall be required for any nighttime construction that requires the closure of any traffic lanes. In certain lane closures, the use of high-level warning flags, along with other devices, is acceptable if installed in accordance with the provisions set forth in the Caltrans *California Manual on Uniform Traffic Control Devices* (Caltrans 2018). The City shall verify the proper use of traffic control devices for the Bayshore Bikeway Component, City Program – Development Component, and potentially the GB Capital Component if the proposed roadway is a City street, while the District shall verify the proper use of traffic control devices for the Balanced Plan, Pasha Rail Improvement Component, Pasha Road Closures Component, and potentially the GB Capital Component if the proposed roadway is a District street.

In addition to traffic control measures, the project proponent shall require its contractor to maintain the following traffic lane requirements throughout the duration of the partial or full road closure:

1. For two-way streets (e.g., a four-lane roadway), a minimum of one lane shall be provided in each direction.
2. The minimum width of a traffic lane shall be 10 feet. The lane shall be clear of obstructions, including traffic cones or delineators. Emergency vehicle access may require a traffic lane of up to 14 feet wide.

3. A separate left- or right-turn lane shall be proved if there is an existing left- or right-turn lane.
4. Complete closure of a roadway shall not be permitted without a valid Special Traffic Permit (STP) or a City-approved traffic routing plan. This includes a plan that allows one lane to be used for two directions of traffic (i.e., two-way flag control). An STP is required to use two-way flag control.
5. If work occurs at or within 100 feet of an intersection on a two-way street, an STP is required to prohibit left turns at the intersection. This requirement applies where two lanes are reduced to one and through vehicles cannot physically pass a left-turning vehicle.
6. If needed, room for a traffic lane(s) may be made available by temporarily prohibiting parking. Traffic lanes must be at least 10 feet wide and provide a sufficient transition before the lane begins and after the lane ends.

To ensure that the traffic lanes provided are adequate and continuous, only one contractor at a time shall be allowed to work on any one block. If a second contractor is planning to work on a block that has a contractor, or on an adjacent block, then the second contractor shall obtain an STP before starting any work. Moreover, a contractor shall not be allowed to work within a block of a project that is under City contract without receiving approval from the Resident Engineer for the subject contract, obtaining an STP, and notifying the City Fire Department and City Police Department.

Flagging personnel shall be required when workers or equipment will temporarily block a traffic lane that is used for access into and out of a construction site. Flagging personnel shall ensure that traffic congestion and permanently blocked roads do not occur. The following shall apply to the flagging personnel required during project construction:

1. Flaggers must be properly equipped with a Type II vest (daytime) or Type III vest (nighttime) and a sign paddle.
2. Flaggers must be certified and have their certification card at all times.
3. A minimum of two flaggers shall be required when one lane is to be used for two directions of traffic (i.e., two-way flag control).
4. Police officers may be hired to provide flag control.

A construction TDM plan shall be prepared by the respective project proponent for each project component and implemented during construction activities. The TDM plan shall be submitted by the respective project proponent to the City or District, depending on the jurisdiction where the project component is located, for review and approval prior to construction. The TDM plan shall incorporate various TDM strategies to reduce congestion during construction and may include, but is not limited to, the following:

- Implementation of a ride-sharing program to encourage carpooling among workers.
- Adjusting work schedules so workers do not access the site during peak hours.
- Providing offsite parking locations for workers outside the area, with shuttle services to bring them onsite.
- Providing subsidized transit passes for construction workers.

For **Impact-TRA-4**:

> **MM-TRA-4: Identify Alternate Tsunami Evacuation Routes (City Program – Development Component).** Prior to the closure of Bay Marina Drive to through traffic at Marina Way, the City shall identify an alternate tsunami evacuation route to replace the existing tsunami evacuation route on Bay Marina Drive/24th Street, heading east from Tidelands Avenue. The City shall delineate the new tsunami evacuation route on publicly accessible maps that shall be made available on the City's website. In addition, the City shall install signage at the location of the new tsunami evacuation route that (1) identifies the tsunami danger area and/or hazard zone (e.g., when entering or leaving the hazard area), evacuation routes, and assembly areas and (2) provides tsunami-response education (e.g., instruction to go to higher ground). Signage shall be implemented in accordance with state and local policies and as determined appropriate by local authorities, including the City Police Department (City of National City 2019) and City Fire Department as well as the responsible TsunamiReady® Board. The City shall implement these requirements prior to the closure of Bay Marina Drive.

For **Impact-TRA-5**:

> Implement **MM-HAZ-9: Coordinate with the City Fire Marshal (Pasha Road Closures Component)**, as described in Section 4.7, *Hazards and Hazardous Materials*.

For **Impact-TRA-6**:

> Implement **MM-HAZ-10: Coordinate with the City Fire Marshal (City Program – Development Component)**, as described in Section 4.7, *Hazards and Hazardous Materials*.

For **Impact-TRA-7**:

> Implement **MM-HAZ-11: Manage Marina Way Realignment Conditions (Balanced Plan or GB Capital Component)**, as described in Section 4.7, *Hazards and Hazardous Materials*.

Level of Significance After Mitigation

Construction

Implementation of **MM-TRA-3** would ensure that emergency vehicle access would be maintained at the project site and in the surrounding area by requiring implementation of traffic control measures during project construction. This would reduce **Impact-TRA-3** to less than significant.

Operation

Implementation of **MM-TRA-4** would ensure that the City would identify an alternate tsunami evacuation route to replace the existing tsunami evacuation route on Bay Marina Drive/24th Street, heading east from Tidelands Avenue, prior to the closure of Bay Marina Drive to through traffic, which would reduce **Impact-TRA-4** to less than significant.

Implementation of mitigation measures **MM-HAZ-9, MM-HAZ-10,** and **MM-HAZ-11** would ensure that emergency vehicle access to the project site and surrounding area would be maintained during project operation by requiring project proponents to prepare and submit plans to the City Fire Marshal for review and approval that demonstrate compliance with applicable state and local fire code regulations related to emergency access and prohibiting the use of traffic calming devices along the Marina Way realignment, unless prior written approval is obtained from the City Fire Marshal.

Implementation of these mitigation measures would reduce **Impact-TRA-5, Impact-TRA-6,** and **Impact-TRA-7** to less than significant.

Threshold 5: Implementation of the proposed project would result in an insufficient parking supply that would lead to a decrease in coastal access for the public.

Impact Discussion

Construction

Construction of the proposed project is anticipated to occur over two phases, spanning several years. The first would include all of the Balanced Plan improvements; Phase 1 activities of the GB Capital Component; the Pasha Rail Improvement Component; Pasha Road Closures Component; and Bayshore Bikeway Component. This first phase is anticipated to be completed around 2022. The second phase would include Phase 2 of the GB Capital Component and the City Program – Development Component. Phase 2 is anticipated to be completed by 2025; however, actual buildout of Phase 2 would be entirely dependent upon future market conditions. Because the exact timing, potential for overlap, number of daily construction workers and trucks, and specific construction details associated with the components were unknown at the time of this analysis, there is the potential for construction of the proposed project to result in an insufficient parking supply that would lead to a temporary decrease in public coastal access. This impact would be potentially significant (**Impact-TRA-8**).

Operation

The California Coastal Act, specifically Section 30252, requires new development within the Coastal Zone to maintain and enhance public access to the coast by providing adequate parking facilities or providing substitute means of serving the development with public transportation. In accordance with the California Coastal Act, a significant parking and public access impact would occur if the proposed project would result in an insufficient parking supply that, when considered with other modes of travel (e.g., bicycling, walking, using transit), would reduce the general public's access to the waterfront as well as coastal commercial and recreational resources. To determine whether the proposed project would result in an insufficient parking supply, thereby inhibiting public coastal access, the analysis relies on standards in the District's Tidelands Parking Guidelines, the City's Municipal Code (Sections 18.24.080 and 18.45.050), and the ITE *Parking Generation Manual*. In addition, the loss of parking associated with the proposed closure of Tidelands Avenue was determined, based on field surveys conducted by a qualified traffic engineer from Chen Ryan. The required parking supply for each project component, based on the aforementioned standards as well as the total parking requirement for proposed project, is provided below.

City Program – Development Component

The City Program – Development Component proposes a development with a floor area ratio of 2.0, which equates to approximately 254,782 square feet of floor area. Table 4.13-6 displays the parking supply requirement for this project component, based on Sections 18.24.080 and 18.45.050 of the City's Municipal Code, which is included in Appendix N of EIR Appendix K. As shown, the City Program – Development Component would be required to provide a minimum of zero parking

spaces and a maximum of 764 parking spaces, based on the parking requirements of the City's Municipal Code.

Table 4.13-6. City Program – Development Component Parking Requirement

Project Component	Size (ksf)	City Municipal Code Rate Minimum Parking Rate	Minimum Parking Requirement
City Program–Development Component *15.5 ksf of restaurant* *12 ksf specialty retail* *150 hotel rooms*	254.8	*Restaurant* 10 spaces/ksf *Specialty Retail* 4 spaces/1 ksf *Hotel* 1 space/room + 1 space for manager	354

Source: Appendix K.
ksf = thousand square feet

GB Capital Component

Table 4.13-7 shows the minimum parking supply requirement for the GB Capital Component, based on the parking rates for the South Bay District in the District's Tidelands Parking Guidelines. These rates are the unadjusted rates for the proposed project. As shown, per the unadjusted parking rates, the GB Capital Component would be required to provide a minimum of 974 parking spaces.

Table 4.13-7. GB Capital Parking Requirement

Land Use	Units	Parking Supply Rate	Minimum Parking Requirement
Recreational Vehicle Campground	70 RV sites	1/site	70
Resort Hotel	463 rooms	1.1/room	511
Specialty Retail (Hotel)	16.5 ksf	0/ksf	0
Campground[1]	60 campsites	1/site	60
Marinas[2]	305 slips	1/slip	305
Single-Tenant Office	10 ksf	2.8/ksf	28
		Total	974

Source: Appendix K.
[1] The "campground" rate is used for the proposed modular cabins.
[2] Includes the proposed dry boat storage (210 storage units) plus the proposed new boat slips (up to 95 slips).
ksf = thousand square feet

Further adjustment factors were applied to the parking demand rate for the GB Capital Component, based on Tables 1 and 2 of the District's Tidelands Parking Guidelines. Table 4.13-8 displays the total unadjusted demand rate for the GB Capital Component as well as the assumed adjustment factors used to develop the final adjusted parking demand rate for this project component. The adjustment factors are based on the features and location of the GB Capital Component.

Table 4.13-8. Adjusted GB Capital Component Parking Requirement

Adjustment	Adjustment Reason	Percent	Change (spaces)
Parking Rate (Unadjusted)	Per Table 1 of the Tidelands Parking Guidelines.	100%	974
Proximity to Transit	The proposed project is not within 0.25 mile of a transit station.	0%	0
Access to Airport	The GB Capital Component does not have close access to an airport.	0%	0.0
Shared Parking Potential	The GB Capital Component does not intend to rely on outside parking options.	0%	0.0
Proximity to Public Waterfront Amenities for Public Access	The GB Capital Component is located along the waterfront and has direct access to the Pier 32 marina.	3%	26.0
Displacement of Existing Parking	The GB Capital Component would not displace any existing parking.	0%	0.0
Existing Parking Shortfall/Surplus	This existing parking shortfall/surplus is being determined by this parking analysis.	0%	0.0
Employee Trip-Reduction Programs	The GB Capital Component proposes to park all employees offsite.	0%	0.0
Dedicated Airport Shuttle Service	An airport shuttle is not proposed as part of the GB Capital Component.	0%	0.0
Dedicated Water Transportation Service	The GB Capital Component proposes to expand the existing adjacent marina, which allows for water taxi transport and transient boat docking.	-10%	-97.0
		Total Adjusted Rate	903

Source: Appendix K

As shown, based on the location and proposed features of the GB Capital Component, the unadjusted parking demand would be reduced by 71 spaces, to 903. Table 4.13-9 summarizes the number of parking spaces proposed to be provided by the GB Capital Component as well as the required spaces after application of the adjustment factors from the District's Tidelands Parking Guidelines.

Table 4.13-9. Proposed Number of Parking Spaces and Parking Requirement for the GB Capital Component

Project Component	Proposed Parking Spaces[1]	Required Parking Spaces[2]	Net Parking Spaces
GB Capital Component	880	903	-23

Source: Appendix K.

[1] Includes 820 spaces from Phase 2 and 60 spaces of the San Diego Gas and Electric parcel.

[2] Total adjusted parking requirements.

As shown, GB Capital is proposing to provide up to 880 parking spaces, including 820 spaces as part of Phase 2 of this project component and 60 spaces on the San Diego Gas and Electric (SDG&E) parcel east of the site. However, per the adjusted rates in the District's Tidelands Parking Guidelines, the GB Capital Component would be required to provide 903 parking spaces, resulting in a deficit of 23 spaces. As such, the potential exists for the parking needs of this project component to spill over onto nearby roadways or adjacent uses during peak times when parking demand exceeds available

capacity. In addition to the parking requirements of the GB Capital Component, the existing parking demand and supply at Pier 32 Marina is also important to note because of its proximity; the site could be used to accommodate overflow parking. Table 4.13-10 displays the current parking supply and demand at Pier 32 Marina during peak times (i.e., mid-day) for both typical weekdays and weekends. Parking occupancy worksheets are provided in Appendix L of Appendix K.

Table 4.13-10. Existing Parking Demand at Pier 32 Marina

		Weekday		Weekend	
Use	Existing Parking Supply (spaces)	Existing Demand[1]	Excess Capacity	Existing Demand[a]	Excess Capacity
Pier 32 Marina	218	140	78	137	81

Source: Appendix K.
[1] Number of occupied parking spaces observed during field visits conducted by Chen Ryan.

As shown, Pier 32 Marina currently has ample parking and does not need to rely on on-street parking to serve its existing patrons. Therefore, if parking demand for the GB Capital Component were to exceed the supply, Pier 32 Marina could absorb the excess and provide parking for the GB Capital Component patrons.

Pasha Road Closures Component

With the closure of Tidelands Avenue and 28th Street, the 249 existing on-street parking spaces would no longer be available for public use. Table 4.13-11 displays the current parking supply and demand on Tidelands Avenue and 28th Street during peak times (AM peak hour) of a typical workday. As shown, the parking on Tidelands Avenue and 28th Street is approximately 35% occupied during the AM peak hour. Parking occupancy worksheets are provided in Appendix O of EIR Appendix K.

Table 4.13-11. Pasha Road Closures Component Existing On-Street Parking Supply and Demand

Project Component	Existing Parking Supply	Existing Demand[1] (Occupied Spaces)	Excess Capacity
Tidelands Avenue	98	42	56
	118	38	80
28th Street	33	7	26
Total	249	87	162

Source: Appendix K.
[1] National City Marine Terminal Tank Farm Paving and Street Closures Project & Port Master Plan Amendment Transportation Impact Study (Chen Ryan, September 2015).

Implementation of this project component would result in a net decrease in the number of on-street parking spaces (i.e., 249 fewer spaces). Based on observations by Chen Ryan, it is appears that the majority of these parking spaces are used by NCMT employees. As a result, the loss of parking would displace existing NCMT employees, who would have to park on adjacent roadways, potentially resulting in a loss of available parking for public uses and coastal access within the project area (**Impact-TRA-9**).

Pepper Park Expansion and Reconfiguration

Pepper Park currently encompasses 5.22 acres and provides 93 parking spaces, including 22 extra-long spaces for vehicles with attached trailers. However, with the proposed park expansion, involving approximately 2.54 additional acres, the parking supply would also need to increase to accommodate the anticipated increase in use at Pepper Park. The City and District currently do not provide parking rates for park uses. Consequently, calculation of the parking requirement for expansion and reconfiguration of Pepper Park was based on rates from ITE's *Parking Generation Manual* (fourth edition, 2010). Table 4.13-12 displays the existing parking supply and the net parking requirement for Pepper Park expansion and reconfiguration.

Table 4.13-12. Pepper Park Expansion and Reconfiguration Parking Requirement

Land Use	Scenario	Units	Existing Parking Supply	Parking Supply Rate	Parking Supply Requirement
City Park	Existing	5.22 acres	93 spaces	15 spaces/acre	78
	Proposed	2.54 acres	—		38
	Total	*7.76 acres*	—		*116*
				Net Parking Spaces	-23

Source: Appendix K.

As shown, the additional parking supply required for the additional 2.54 acres of park space totals 38, which increases the total parking requirement for Pepper Park to 116 spaces. Given that there are 93 existing spaces, an additional 23 parking spaces would be required for Pepper Park expansion and reconfiguration. As a result, Pepper Park expansion and reconfiguration (part of the Balanced Plan) would result in an insufficient amount of parking for public uses and coastal access within the project area (**Impact-TRA-10**).

Total Project Parking Requirements

The total parking supply requirement includes parking demand from Pepper Park expansion and reconfiguration (Balanced Plan), the GB Capital Component, and the City Program – Development Component. Table 4.13-13 summarizes the total number of new parking spaces required for buildout of the proposed project.

4.13-13. Total Project Parking Requirements

Project Component	Existing Parking Spaces	Proposed Parking Spaces	Parking Requirement
City Program – Development Component[1]	0	—	354
GB Capital Component	0	880	903
Pepper Park Expansion	93	—	116
		Total Net Parking Requirement	1,373

Source: Appendix K.
[1] Proposed parking supply is currently unknown. The City Municipal Code provides a minimum and maximum parking rate for mixed-use commercial uses. Both requirements are provided in the table.

As shown, full project buildout would require 1,373 parking spaces within the project area, based on the parking standards in the District's Tidelands Parking Guidelines, the City's Municipal Code (Sections 18.24.080 and 18.45.050), and the ITE *Parking Generation Manual*. Each of the project components would be required to comply with applicable parking standards and provide sufficient parking to meet their respective demand. However, the proposed closure of Tidelands Avenue would decrease the number of available on-street parking spaces, which are currently used by the public and NCMT employees, by 216. As such, the loss of parking on Tidelands Avenue would displace existing NCMT employees, who would have to park on adjacent roadways, potentially resulting in a loss of available parking within the project area that could inhibit public coastal access (**Impact-TRA-9**). As described above, Pepper Park expansion and reconfiguration (part of the Balanced Plan) would result in an insufficient amount of parking for public uses and coastal access within the project area (**Impact-TRA-10**). Therefore, the proposed project (Balanced Plan, GB Capital Component, and Pasha Road Closures Component) would result in an insufficient parking supply that would lead to a decrease in coastal access for the public. Impacts would be significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would result in an insufficient parking supply that would lead to a decrease in coastal access for the public. Potentially significant impact(s) include the following:

Impact-TRA-8: Insufficient Parking During Project Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component). Because of the potential overlap of construction for several of the project components and number of daily construction workers and trucks, the potential exists for construction of the proposed project to result in a temporarily insufficient parking supply that would lead to a temporary decrease in public coastal access. This impact would be potentially significant.

Impact-TRA-9: Insufficient Parking for Terminal Employees During Operations (Pasha Road Closures Component). The proposed closure of roadways would result in a net decrease in the number of spaces available for on-street parking, which is currently used by NCMT employees (i.e., 249 fewer spaces). As a result, the loss of parking would displace existing NCMT employees, who would have to park on adjacent roadways, potentially resulting in a loss of available parking within the project area that could inhibit public coastal access. This impact would be potentially significant.

Impact-TRA-10: Insufficient Parking for Pepper Park Expansion and Reconfiguration (Balanced Plan). The additional 23 parking spaces required for Pepper Park expansion and reconfiguration could result in an insufficient number of parking spaces within the project area and inhibit public coastal access. This impact would be potentially significant.

Mitigation Measures

For **Impact-TRA-8**:

> **MM-TRA-5: Require Offsite Parking, Shuttle Transportation, and Incentives for Transit Use for Construction Workers and Wayfinding Signage for Visitors (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development**

Component). Prior to the commencement of construction activity, the project proponent for each component shall provide an offsite parking location for construction workers and a shuttle service from the offsite parking location to the project site and back. For project components within the District's jurisdiction, the designated offsite parking location shall be approved by the District's Development Services Department (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, and Pasha Road Closures Component). For project components within the City's jurisdiction, the designated offsite parking location shall be approved by the City. In addition, the project proponent shall provide incentives for construction workers to use public transit. Workers who cannot commute by transit and must use personal vehicles shall be required to park at the offsite parking facility. The parking requirements for the workers shall be detailed in their contract with the project proponent. Moreover, during the construction phase, some public parking shall remain open, to the extent feasible, through the phasing of construction. If onsite public parking is displaced, the project proponent shall provide conspicuous signage to direct visitors to available parking facilities throughout the duration of the construction that displaced the public parking to maintain public coastal access.

For **Impact-TRA-9:**

MM-TRA-6: Reconfigure Lot Q to Accommodate 590 Striped Parking Spaces (Pasha Road Closures Component). Prior to implementation of the Pasha Road Closures Component, the project proponent shall restripe Lot Q (located on the southwest corner of Bay Marina Drive and Quay Avenue) to provide additional parking for employees and offset the loss of 249 parking spaces. Upon completion of this restriping, there would be 590 parking spaces in Lot Q; this would accommodate the 574 existing NCMT employees. Once completed, evidence indicating completion of the restriping shall be provided by the project proponent for the Pasha Road Closures Component to the District's Development Services Department. Pasha shall require its employees to use Lot Q and allow other employees at NCMT to use the parking lot.

For **Impact-TRA-10:**

MM-TRA-7: Accommodate 23 Additional Parking Spaces at the Pepper Park Parking Lot (Balanced Plan). Prior to issuance of the Coastal Development Permit for Pepper Park (Balanced Plan), the District shall accommodate an additional 23 parking spaces, for a total of 116 parking spaces at Pepper Park. The additional 23 spaces shall be designed to be flex spaces that can be used as either parking or an active area of the park, depending on need. Following the completion of the Pepper Park expansion (including the 23 spaces), the District shall prepare a study that determines the actual (i.e., on-the-ground) demand for parking at the newly expanded park. If the results of the study demonstrate that the amount of parking can be reduced, the District will reduce the number of parking spaces to the actual on-the-ground demand identified in the study (but no more than a reduction of 23 spaces).

Level of Significance After Mitigation

Construction

With implementation of **MM-TRA-5**, impacts related to the loss of parking during construction and its effects on public coastal access (**Impact-TRA-8**) would be reduced to less than significant because public parking would continue to be accessible, and construction workers would be required to park at an offsite location and use a shuttle system or use public transit, thereby maintaining sufficient parking and continued coastal access for the public.

Operation

The proposed closure of Tidelands Avenue would result in a net decrease in available on-street parking, which is currently used by NCMT employees (i.e., 216 fewer spaces). This loss of parking could displace existing NCMT employees, who would have to park on adjacent roadways, potentially resulting in a loss of available parking within the project area that could inhibit public coastal access (**Impact-TRA-9**). However, Pasha would be required to increase the amount of employee parking at Lot Q to 590, per **MM-TRA-6**, which would accommodate the 574 existing NCMT employees (the total number of NCMT employees contemplated in the NCMT Tank Farm Paving and Street Closures Project and Port Master Plan Amendment EIR [District 2016]) and ensure sufficient parking. As such, the parking spaces on Tidelands Avenue would no longer be needed because Pasha would be required to provide the appropriate number of spaces to accommodate NCMT employees within their leasehold. Therefore, **Impact-TRA-9** would be reduced to less than significant.

With implementation of **MM-TRA-7**, impacts related to the loss of parking at Pepper Park and its impacts on public coastal access (**Impact-TRA-10**) would be reduced to less than significant because adequate parking would be added at Pepper Park, thereby maintaining sufficient parking for continued coastal access for the public.

Section 4.14
Utilities and Service Systems

4.14.1 Overview

This section describes the existing utility and service systems that serve the project site, as well as the applicable regulations that govern their use, supply and distribution, and performance. This section also discusses the proposed project's potential to exceed the existing or planned infrastructure and treatment capacities for utilities and service systems.

Impacts on utilities and service systems would be significant if the project were to (1) require or result in the relocation or construction of new or expanded water, or wastewater treatment or stormwater drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects; (2) not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years; (3) result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments; (4) generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or (5) fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Table 4.14-1 summarizes the significant impacts and mitigation measures discussed in this section.

Table 4.14-1. Summary of Significant Utilities and Service System Impacts and Mitigation Measures

Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance after Mitigation	Rationale for Finding after Mitigation
Impact-UTIL-1: Insufficient Water Facilities Available to Serve the Proposed Project (Balanced Plan, GB Capital Component, and City Program – Development Component)	**MM-UTIL-1:** Prepare Utility Infrastructure Study (Balanced Plan, GB Capital Component, and City Program - Development Component) **MM-UTIL-2:** Implement Water Conservation Measures (Balanced Plan, GB Capital Component, and City Program – Development Component)	Less than Significant	With implementation of **MM-UTIL-1** and **MM-UTIL-2**, sufficient water facilities would be required to be available to serve the proposed project to be developed.
Impact-UTIL-2: Insufficient Pipeline Capacity to Meet the Fire Flow Demands Plus Maximum Day Demands (GB Capital	**MM-UTIL-3:** Upsize the Existing Bay Marina Drive Pipeline and Install New Pipeline Along the Proposed Road Realignment to Meet Project Fire Flow Demands (GB	Less than Significant	With implementation of **MM-UTIL-3**, sufficient fire flow would be available to serve the proposed project. Potential impacts would be reduced to less-than-significant levels.

Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance after Mitigation	Rationale for Finding after Mitigation
Component and City Program – Development Component)	Capital Component and City Program – Development Component)		
Impact-UTIL-3: Insufficient Sewer Facilities to Convey Wastewater Generated by Future Development (Balanced Plan, GB Capital Component, and City Program – Development Component)	**MM-UTIL-1**, as described above (Balanced Plan, GB Capital Component, and City Program – Development Component) **MM-UTIL-4**: Issue Payment for City's Sewer Capacity Fee (Balanced Plan, GB Capital Component, and City Program – Development Component)	Less than Significant	With implementation of **MM-UTIL-1**, sufficient sewer facilities would be required to be available to serve the proposed project. With implementation of the mitigation measures, sufficient sewer capacity and treatment would be available to serve the proposed project. Potential impacts would be reduced to less-than-significant levels.
Impact-UTIL-4: Insufficient Stormwater Facilities to Convey Stormwater Generated by Future Development (Balanced Plan, GB Capital Component, and City Program – Development Component)	**MM-UTIL-1**, as described above (Balanced Plan, GB Capital Component, and City Program – Development Component)	Less than Significant	With implementation of **MM-UTIL-1**, sufficient stormwater facilities would be required to be available to serve the proposed project.
Impact-UTIL-5: Insufficient Electricity, Natural Gas, and Telecommunications Facilities to Serve the Project Components (Balanced Plan, GB Capital Component, City Program – Development Component).	**MM-UTIL-1**, as described above (Balanced Plan, GB Capital Component, and City Program – Development Component)	Less than Significant	With implementation of **MM-UTIL-1**, sufficient electricity, natural gas, and telecommunications facilities would be required to be available to serve the proposed project.

Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance after Mitigation	Rationale for Finding after Mitigation
Impact-UTIL-6: Insufficient Water Supplies Available to Serve the Proposed Project (Balanced Plan, GB Capital Component, and City Program – Development Component)	**MM-UTIL-1** and **MM-UTIL-2**, as described above (Balanced Plan, GB Capital Component, and City Program – Development Component) **MM-UTIL-5:** Confirm Water Supply Availability for Recreational or Ornamental Water Feature (Balanced Plan, City Program – Development Component, and GB Capital Component) **MM-UTIL-6:** Confirm Water Supply Availability Prior to Issuance of Building Permits (Balanced Plan, City Program – Development Component, and GB Capital Component)	Less than Significant	With implementation of **MM-UTIL-1, MM-UTIL-2**, **MM-UTIL-5**, and **MM-UTIL-6**, impacts would be reduced to a less-than-significant level by requiring project design to match water availability.

4.14.2 Existing Conditions

The utility providers that service the project site are listed in Table 4.14-2. Services and utilities are described in further detail below. Further details regarding electricity and natural gas providers is provided in Section 4.5, *Energy*.

Table 4.14-2. Utility Service Providers

Utility Service	Provider
Wastewater	National City Wastewater Division
Water	Sweetwater Authority
Stormwater	Unified Port District of San Diego; National City Storm Water Division
Solid Waste	National City franchised waste hauler (EDCO Waste and Recycling Services)/Otay Landfill
Electricity and Natural Gas	San Diego Gas and Electric Company

4.14.2.1 Wastewater

Wastewater treatment service is provided to the project site by the City wastewater division. Wastewater collected within the city, including the project site, is treated by the City of San Diego at the Point Loma Wastewater Treatment Plant (PLWTP). The PLWTP treats approximately 175 million gallons per day (mgd) of wastewater generated in a 450-square-mile area by more than 2.2 million residents. Located on a 40-acre site on the bluffs of Point Loma, the plant has a treatment capacity of 240 mgd. Treated effluent is discharged to the ocean through a 4.5-mile-long ocean outfall off Point Loma (City of San Diego 2018).

The City provides sewer service to the area and receives inflows from the City of San Diego and the United States Navy in route to the regional South Metro Interceptor. The City has approximately 97 miles of sewer collection pipes that drain westerly to the South Metro Interceptor and ultimately to the PLWTP. The PLWTP currently treats the wastewater generated by the project site and the quality of wastewater discharge is regulated by National Pollutant Discharge Elimination System (NPDES) Permit No. CA0107409. In 2015, the volume of wastewater collected from the Sweetwater Authority (SWA) service area was 10,522 acre-feet per year (AFY). Wastewater at the PLWTP is treated to an advanced primary level before being discharged into the ocean (SWA 2015).

There are nine significant sewer basins within the city that contribute wastewater flow to the City wastewater collection system: NC2, NC3A, NC3B, NC5, NC7M, NC8M, NC13, NC15, and NC16. While the majority of the sewer collection system drains to the South Metro Interceptor by gravity, there is a low-lying area within the project site on Tidelands Avenue west of Interstate 5, which is pumped to the interceptor (City of National City 2011). An existing sewage pump station is in the southeast corner of Pepper Park, which is used to pump wastewater from one location to another (District 2018).

Sewer infrastructure currently serving the project site and the immediate vicinity includes a network of underground collector pipes, gravity mains, and force mains that convey wastewater to pump stations throughout the City's service area. The project site is served by 6-, 8-, and 10-inch-diameter polyvinyl chloride (PVC) wastewater pipes that collect sewage from the project site and surrounding facilities. An 8-inch main transports wastewater to a 10-inch PVC sewer main in Tidelands Avenue that is then discharged into a Pump Station at the intersection of Tidelands Avenue and Bay Marina Drive. Wastewater infrastructure serving the existing Best Western Marina Gateway hotel south of the City Program – Development Component includes a 10-inch wastewater pipe that runs parallel to Tidelands Avenue. The force main along Tidelands Avenue has a 10-inch diameter and is approximately 25 feet long, carrying flow from the northern lift station. Ultimately, wastewater from the existing land uses is discharged to the PLWTP.

4.14.2.2 Water

Water service is provided to the project site by SWA, which is a member agency of the San Diego County Water Authority. SWA's water system provides water service to a population of approximately 191,000 people within the western and central portions of Chula Vista, all of National City, and the unincorporated community of Bonita within San Diego County. SWA's service area covers 32 square miles and contains approximately 33,000 service connections (SWA 2015). SWA obtains its water supply from four sources: treated and untreated water from the County Water Authority; surface runoff from the Sweetwater River watershed, which is fully appropriated to SWA; the National City Wells; and the Richard A. Reynolds Desalination Facility, a brackish groundwater desalination facility. SWA owns and operates two surface water reservoirs: Sweetwater Reservoir, which has an approximate capacity of 28,079 acre-feet, and Loveland Reservoir, which has an approximate capacity of 25,387 acre-feet. SWA operates the National City Wells, northeast of the project site, that produce potable groundwater, and the Richard A. Reynolds Desalination Facility, which produces drinking water from brackish groundwater. The two well fields pump from the San Diego Formation. SWA produces approximately 2,100 AFY of groundwater from the National City Wells in a normal water year.

Future water demand and supply projections are required to be updated every 5 years with the adoption of an Urban Water Management Plan (UWMP). In the SWA 2015 UWMP, the normal water

year is based on available supplies in 2005, the single dry year is the year with the lowest runoff (2015), and the multiple-dry-year period is the lowest average runoff for a consecutive 3-year period (2013–2015). Due to ongoing drought conditions, the availability of local water supply from Sweetwater Reservoir declined from 12,927 acre-feet in 2013 to zero in 2015. According to the 2015 UWMP, if the Metropolitan Water District of Southern California and member agency supplies are developed as planned, along with achievement of Senate Bill X7-7 water conservation targets, adequate water supply is anticipated within SWA's service area for normal/average and single dry years through 2040 (SWA 2015).

SWA's 2015 UWMP projects the estimated demand of potable water resources until the year 2040 based on coordination with various agencies, including the San Diego County Water Authority, which provided imported water availability and regional water demands and conservation, and the San Diego Association of Governments (SANDAG), which provided the most recent demographic projections (2050 Regional Growth Forecast Update Series 13). Table 4.14-3 shows SWA's existing and projected water demand and estimated supply between 2015 and 2040 under normal weather conditions. As shown, future demand would be met by the supply in each 5-year increment through 2040. SWA's UWMP is updated every 5 years, at which time the projected supply and demand of potable water resources is reevaluated for the reasonably foreseeable future (i.e., 20-year planning period).

Table 4.14-3. Normal, Single-, and Multiple-Dry-Year Water Supply and Demand (2020–2040) (AFY)

	2020	2025	2030	2035	2040
Normal Year					
Supply	22,488	22,856	23,551	25,153	26,218
Demand	22,488	22,856	23,551	25,153	26,218
Difference	0	0	0	0	0
Single-Year Dry					
Supply	24,062	24,450	25,200	26,914	28,053
Demand	24,062	24,450	25,200	26,914	28,053
Difference	0	0	0	0	0
Multiple-Year Dry (First Year)					
Supply	24,962	24,450	25,200	26,914	28,053
Demand	24,962	24,450	25,200	26,914	28,053
Difference	0	0	0	0	0
Multiple-Year Dry (Second Year)					
Supply	24,962	25,364	26,142	27,920	29,102
Demand	24,962	25,364	26,142	27,920	29,102
Difference	0	0	0	0	0
Multiple-Year Dry (Third Year)					
Supply	22,219	22,585	23,293	24,911	25,987
Additional Conservation	1,843	1,865	1,907	2,0003	2,067
Demand	24,062	24,450	25,200	26,914	28,053
Difference	0	0	0	0	0

Source: Tables 6-3, 6-4, and 6-5 in SWA 2015.

Current water use at the project site is accounted for in SWA's 2015 UWMP. The project site currently consists of a marina, railroads (the BNSF Railway and San Diego & Arizona Eastern Railroad tracks), paved areas (primarily utilized for temporary storage of imported vehicles), a parking lot, an aquatic center, and a park. A Water Supply Assessment (WSA) was prepared by SWA (August 2019) for the proposed project and is included as Appendix N. Existing daily water use at the project site is approximately 19,233 AFY (Appendix N). This total includes water use for both existing landside and waterside operations at the project site.

4.14.2.3 Storm Drainage

The project site is within the Pueblo Watershed, San Diego County's smallest and most densely populated hydrologic unit. This hydrologic unit encompasses San Diego Bay and approximately 60 square miles of predominantly urbanized land that drains into San Diego Bay (Project Clean Water 2018). In addition to San Diego Bay waters, the main hydrologic feature of the watershed closest to the project site is Sweetwater Channel, in the southern portion of the project site.

A stormwater drainage system, managed by the City Storm Water Division, currently exists on the project site. Existing onsite drainage facilities consist of several underground City and District storm drain systems. The City's municipal separate storm sewer system consists of 19 miles of catch basins, inlets, pipes of varying materials, natural creeks and streams, natural channels, concrete channels, and culverts (City of National City 2019). Portions of the project site are also underlain by District (including tenant-influenced) storm drain lines that discharge directly to San Diego Bay and Sweetwater Channel. As described in Section 4.8, *Hydrology and Water Quality*, the District's Jurisdictional Runoff Management Program (JRMP) (District 2018) has been developed to meet the conditions of the municipal permit and to assist the District in achieving the goals identified in the San Diego Bay Watershed Water Quality Improvement Plan. Port-specific Water Quality Improvement Plan–based strategies have been incorporated into the JRMP. The JRMP's focus is on controlling stormwater discharges to the municipal separate storm sewer system with the overall goal of achieving receiving water quality improvements. Stormwater flow from the project site also drains as overland flow into Sweetwater Channel and San Diego Bay.

4.14.2.4 Solid Waste

Solid waste generated at the project site is collected by the City's franchised waste hauler (EDCO Waste and Recycling Services) and transported to a local landfill. The approved waste hauler is allowed to dispose of municipal solid waste at any of the landfills in San Diego County.

San Diego County has four active landfills that accept solid waste: West Miramar Sanitary, Sycamore Canyon, Otay, and Borrego Landfills. Table 4.14-4 shows the landfills' permitted remaining capacities and estimated remaining site life. Remaining landfill capacities are based on design limits specific to each landfill site. Site capacity and the maximum daily permitted rate of disposal specific to each site determine the estimated closure dates.

Table 4.14-4. Active San Diego County Municipal Solid Waste Landfills

Solid Waste Facility	Permitted Remaining Capacity	Maximum Permitted Capacity	Estimated Remaining Site Life
Miramar Landfill	11,080,871 cubic yards	97,354,735	2031
Sycamore Canyon Landfill	113,972,637 cubic yards	147,908,000	2042
Otay Landfill	21,194,008 cubic yards	61,154,000	2030
Borrego Landfill	111,504 cubic yards	476,098	2046

Source: CalRecycle 2021.

Because the Otay Landfill is closest to the project site and therefore would be the least expensive in terms of transportation costs, it is anticipated that a majority of project-generated solid waste would be disposed of there. However, project-generated solid waste could also be disposed of at Miramar Landfill, Sycamore Canyon Landfill, and/or Borrego Landfill. Solid waste collection would be rerouted to any of these landfills once Otay Landfill is closed.

Diversion rates are used to report solid waste disposal in the city and to address Assembly Bill (AB) 341 recycling goals, which require each city in the state to divert at least 75% of its solid waste from landfill disposal through measures such as source reduction, recycling, and composting (see Section 4.14.3, *Applicable Laws and Regulations*). According to the California Department of Resources Recycling and Recovery's (CalRecycle's) 2019 Jurisdiction Diversion/Disposal Rate Summary for National City, the City meets its target employment disposal rate of 20.7 pounds per person per day with an annual rate of 12.2 pounds per person per day (CalRecycle 2019). The City's diversion rate is 53%, which is consistent with the statewide average.

4.14.3 Applicable Laws and Regulations

4.14.3.1 State

Water

California Water Code Section 10910 (Senate Bill 610)

California Water Code Section 10910 requires city and county lead agencies to request that water purveyors prepare WSAs for certain projects (as defined in Water Code Section 10912) subject to CEQA, including business establishments of more than 500,000 square feet and hotels having more than 500 rooms. The primary issue for the WSA to determine is whether the projected supply for the next 20 years—based on normal, single dry, and multiple dry water years—would meet the demand projected for a proposed project plus the existing and planned future uses, including agricultural and manufacturing uses. California Water Code Section 10910 would apply to the proposed project and a WSA is required.

The WSA for the proposed project is included as Appendix N.

Water Conservation Act

The Water Conservation Act of 2009 (Senate Bill X7-7) was enacted in California in November 2009 and requires that all water suppliers increase their water use efficiency. The act mandates water

conservation, measurement, and reporting activities for urban and agricultural water suppliers. The Water Conservation Act requires the state to reduce urban water consumption by 20% by the year 2020. In addition, urban and agricultural water providers are encouraged to report the data to the Department of Water Resources.

Solid Waste

California Integrated Waste Management Act

In response to reduced landfill capacity, the State of California passed the California Integrated Waste Management Act in 1989. This legislation (generally known by the name of its enacting bill, AB 939) requires cities and counties to reduce the amount of solid waste entering existing landfills through recycling, reuse, and waste prevention efforts. The purpose of AB 939 is to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible." AB 939 requires jurisdictions to utilize "integrated waste management"—a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment.

When first enacted, AB 939 required every city and county in the state to prepare a Source Reduction and Recycling Element in its Solid Waste Management Plan to identify how each jurisdiction planned to meet mandatory state waste diversion goals of 25% by the year 1995 and 50% by the year 2000. AB 939 also established the California Integrated Waste Management Board, the state agency designated to oversee, manage, and track California's solid waste generation each year. In order to further the goals of AB 939, statewide strategies to achieve a 75% reduction goal by 2020 were established with the adoption of AB 341 in May 2012. As stated in the legislative text of AB 341, it is the policy goal of the state that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020, and annually thereafter (Public Resources Code Section 41780.01(a)). The 75% diversion goal does not apply to individual jurisdictions or development projects (CalRecycle 2020). AB 341 also establishes the statewide mandatory commercial recycling program, which requires businesses that generate 4 cubic yards or more of commercial solid waste per week, or multi-family residential dwellings of five units or more, to implement recycling practices during operation to help the state achieve the statewide diversion goal of 75%.

Electrical Power

California Code of Regulations, Title 20 and Title 24 (2019)

Updated every 3 years through a rigorous stakeholder process, Title 24 of the California Code of Regulations (CCR) requires California homes and businesses to meet strong energy efficiency measures, thereby lowering their energy use. Title 24 contains numerous subparts, including Part 1 (Administrative Code), Part 2 (Building Code), Part 3 (Electrical Code), Part 4 (Mechanical Code), Part 5 (Plumbing Code), Part 6 (Energy Code), Part 8 (Historical Building Code), Part 9 (Fire Code), Part 10 (Existing Building Code), Part 11 (Green Building Standards Code), Part 12 (Referenced Standards Code).

New buildings constructed in California must comply with the standards contained in CCR Title 20, Energy Building Regulations, and Title 24, Energy Conservation Standards. Title 20 contains standards ranging from power plant procedures and siting to energy efficiency standards for

appliances to ensuring reliable energy sources are provided and diversified through energy efficiency and renewable energy resources.

Energy Conservation Standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission in June 1977. The most recent update was the 2019 Building Energy Efficiency Standards, which were adopted in May 2018 and took effect on January 1, 2020 (Part 6, Title 24). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The 2016 standards improve upon the previous 2013 standards for new construction of, and additions and alterations to, residential and nonresidential buildings. Under the 2016 standards, residential buildings are generally 28% more efficient than under the 2013 standards, and nonresidential buildings are generally 5% more energy efficient than under the 2013 standards as a result of better windows, insulation, lighting, ventilation systems, and other features (CEC 2015). Under the 2019 standards, nonresidential buildings will be 30% more energy efficient compared to under the 2016 standards. Part 6 also provides for the installation of cool roofs in Sections 140.3(a)(1), 141.0(b)(2)(B), and 141.0(b)(3).

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24) (CalGreen) was adopted as part of the California Building Standards Code (24 CCR) and applies to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated in the code, throughout the state. The current version of CalGreen (2019) became effective on January 1, 2020.

Part 11 establishes voluntary standards that became mandatory in the 2010 edition of the code, including planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. In addition, Section 5.408 of CalGreen requires that a minimum of 65% all non-hazardous construction and demolition waste be recycled and/or salvaged for reuse. This specific requirement applies to non-residential construction projects.

4.14.3.2 Local

All Utilities

Green Port Program and Green Port Policy

The District's Board of Port Commissioners originally adopted the Green Port Policy in 2007. This policy establishes guiding principles to achieve long-term environmental, societal, and economic benefits through resource conservation, waste reduction, and pollution prevention. The policy provides the overall framework for the Green Port Program. The Green Port Program is an umbrella program designed to achieve the District's environmental sustainability goals in six key areas: water, energy, air, waste management, sustainable development, and sustainable business practices. The mission of the Green Port Program is to provide leadership by minimizing environmental impacts from operations on San Diego Bay and District tidelands, and ensure a thriving community where people and the environment prosper. It was established in early 2008 to achieve the objectives outlined in the District's Green Port Policy. Policy objectives include the following.

- Minimize, to the extent practicable, environmental impacts directly attributable to operations on San Diego Bay and the tidelands.
- Strengthen the District's financial position by maximizing the long-term benefits of energy and resource conservation.
- Prevent pollution and improve personal, community, and environmental health.
- When possible, exceed applicable environmental laws, regulations, and other industry standards.
- Ensure a balance of environmental, social, and economic concerns are considered during planning, development, and operational decisions.
- Define and establish performance-driven environmental sustainability objectives, targets, and programs.
- Monitor key environmental indicators and consistently improve performance.
- Foster socially and environmentally responsible behavior through communications with employees, tenants, stakeholders, and the community.
- Collaborate with tenants to develop an integrated, measurable, Bay-wide environmental sustainability effort.

District employees, tenants, local environmental groups, and others around San Diego Bay support the Green Port Program through implementation of the District's environmental programs including the Climate Action Plan, Pollution Prevention initiatives, Natural Resources Management, and various other programs. These programs ensure that a balance of environmental, social and economic concerns are considered during planning, development, and operational decisions. For waste management, the District's goal is to reduce waste from District operations through material reuse, recycling, and composting.

Water

Sweetwater Authority's 2015 Urban Water Management Plan

The California Urban Water Management Planning Act requires that each urban water supplier providing water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 AFY of water, must prepare, update, and adopt a UWMP at least once every 5 years. This law applies to SWA. The intent of an UWMP is to present information on water supply, water usage, recycled water, and water use efficiency programs in a respective water district's service area. A UWMP also serves as a resource for planners and policy makers over a 25-year timeframe. SWA updates its demand forecasts and supply needs based on the most recent SANDAG forecast approximately every 5 years. The most current supply and demand projections are contained in the 2015 UWMP, which was adopted in June 2016. The 2015 UWMP states that all future water demands will have available water supplies for the predicted service areas during a normal water year scenario; however, water shortages are identified during single-dry-year and multiple-dry-water year scenarios.

Solid Waste

National City Municipal Code (Chapter 15.80, Construction and Demolition Debris)

Although the project site is within the District's jurisdiction, solid waste is collected and processed by the City's franchised waste haulers. Consequently, City policies and codes would apply to the collection and processing of solid waste generated by the proposed project.

The City's municipal code requires that, at a minimum, the following specified percentages of the waste tonnage of demolition and construction debris generated from the following categories of covered projects be diverted from landfills by using recycling, reuse, and diversion programs:

- 75% of inert debris
- 50% of remaining construction and demolition debris generated by a covered project

San Diego County Integrated Waste Management Plan

The San Diego County Integrated Waste Management Plan was adopted in January 2005 to meet the requirements of the California Integrated Waste Management Act. The plan includes goals and policies as well as a summary of integrated waste management issues in San Diego County. It summarizes waste management programs that local jurisdictions are using to meet the 50% waste reduction mandate. It also suggests steps needed to cooperatively implement and administer specific programs regionally or countywide. The plan consists of a Countywide Siting Element, a Countywide Summary Plan, and three elements from each jurisdiction.

- Source Reduction and Recycling Element, which analyzes the local waste stream and presents diversion programs and funding
- Household Hazardous Waste Element, which includes programs to encourage safe management of household toxic waste and provide framework for recycling, treatment, and proper disposal
- Non-Disposal Facility Element, which lists existing and planned facilities

4.14.4 Project Impact Analysis

4.14.4.1 Methodology

Impacts on utilities (wastewater, water, stormwater, solid waste, and energy) that are possible with project implementation were assessed utilizing varying methods depending on the utility service, and generally include a comparison of the project-related demand against existing supply and storage capacities. Further discussion related to energy is provided in Section 4.5, *Energy*. Any need for physical improvements to the existing infrastructure would be considered part of the proposed project, and any potential impacts from these improvements are evaluated within this section and other applicable resource sections. Sources of demand for utilities at the project site include temporary employees for construction of the proposed project, long-term employees during project operations, and project operations in general. Construction of the proposed project is anticipated to require a maximum of approximately 395 daily construction workers on the site. Long-term employment under the proposed project is anticipated to increase, including full time employees to operate the proposed hotels, recreational vehicle (RV) park, modular cabins, restaurant, retail,

combination of tourist/visitor-serving commercial development, and expanded marina. Specific methods for analyzing each utility service are provided below.

Wastewater

Impact assessments for wastewater systems or sewers generally include the comparison of the project-related wastewater flow generation to the existing and projected wastewater treatment capacity of the treatment plant serving the site, in this case the PLWTP, as well as the capacity of onsite or offsite wastewater infrastructure. The analysis then considers whether the construction of new or expanded wastewater facilities could cause significant environmental effects. Table 4.14-5 provides the projected wastewater demand for the proposed project utilizing duty factors identified in the City's *Sewer System Master Plan* (City of National City 2011).

Table 4.14-5. Projected Wastewater Demand for the Proposed Project

Land Use	Acres	Wastewater Generation (gallons/acre/day)	Projected Wastewater Demand (gallons/day)
Commercial (Hotels, Restaurants, and Retail)	6.2	2,150	13,330
Industrial (Marine-Related Industrial)	6.8	1,400	9,520
Commercial (Hotels, RV Park, Boat Storage, etc.)	21.2 (land) 25.7 (water)	2,150	100,835
Landscape (Park/Plaza)	7.76	1,100	8,536
Industrial (Marine Terminal)	6.76	1,400	9,464
Industrial (Marine-Related Industrial)	6.07	1,400	8,498
Total			**150,183**

Sources: Appendix N; City of National City 2011..

Water

Impact assessments for existing water systems generally include a comparison of the project-related water demand as it relates to available supply and the sufficiency of the existing water infrastructure to support that demand. As mentioned, California Water Code Section 10910 requires city and county lead agencies to request that water purveyors prepare WSAs for certain projects subject to CEQA.

A WSA was prepared for the project by SWA in August 2019 and is included as Appendix N. Projected demands for years 2020 through 2040 were calculated using the SANDAG 2050 Regional Growth Forecast for population and multiplying the population by 105 gallons per capita per day (GPCD). The GPCD rate represents the average demand in SWA's service area over fiscal years 2005–2015. This 10-year period included both wet and dry years, and also incorporates water savings that took place in recent years as a result of the drought. Therefore, the 105 GPCD rate is considered to be a realistic anticipation of future water demands under a variety of hydrologic conditions and taking into consideration long-term water savings.

The demands shown in Table 4.14-2 for year 2025 were developed by SWA based on project areas and number of hotel rooms provided by the District; water usage per equivalent dwelling unit established in SWA's 2016 Water Capacity Fee Report; actual audited water use data for

commercial, industrial, and public (landscape) land use types within SWA's service area for Fiscal Year 2018; and total acreage within SWA's service area for the aforementioned land use types. Because the proposed project is expected to be built out by 2025, calculated demands for 2025 were carried over to years 2030, 2035, and 2040, as no new demands are anticipated after the year 2025.

The existing annual water use for the project site is approximately 19,233 AFY. The future water demand for the proposed project, including the proposed RV park, modular cabins, hotels, expanded marina, retail and restaurant uses, and expansion of Pepper Park, was identified through preparation of the WSA. Table 4.14-6 provides the projected daily and annual water demand for the proposed project.

Table 4.14-6. Projected Water Demand for the Proposed Project

Land Use	Project Component	Acres[1]	Water Use (gallons/acres/day)	Projected Water Demand (AFY) 2020	2025	2030	2035	2040
Commercial (Hotels, Restaurants, and Retail)	City Program – Development Component; GB Capital Component	6.2	3,052	0	20.4	20.4	20.4	20.4
Industrial (Marine-Related Industrial)	Pasha Rail Improvement Component	6.8	54	0	0.4	0.4	0.4	0.4
Commercial (Hotels, RV Park, Boat Storage, etc.)	GB Capital Component	21.2 (land) 25.7 (water)	3,052	0	75	75	75	75
Landscape (Park/Plaza)	Balanced Plan	7.76	483	0	4.2	4.2	4.2	4.2
Industrial (Marine Terminal)	Balanced Plan	6.76	54	0	0.4	0.4	0.4	0.4
Industrial (Marine-Related Industrial)	Pasha Road Closures Component	6.07	54	0	0.4	0.4	0.4	0.4
			Total	0	100.8	100.8	100.8	100.8

Source: Appendix N.
[1] Based on the District's transmittal to SWA dated April 26, 2019.

Solid Waste

Impacts associated with solid waste generally involve an estimation of construction- and operations-related solid waste generation compared to the capacity of the landfills serving the project area. The existing solid waste generation for the proposed project was calculated based on waste generation rates from the California Integrated Waste Management Board. Solid waste projections for components of the proposed project were calculated based on waste generation rates for various types of uses identified by the California Integrated Waste Management Board. Summaries of the projected daily solid waste generation for the project components are provided in Table 4.14-7 below.

Table 4.14-7. Projected Daily Solid Waste for the Proposed Project

Project Component	Use	Square Footage/ Rooms	Generation Rate	Amount of Waste (pounds/day)
Hotel (City Program – Development Component)	Hotel	150 rooms	2 pounds/room/day	300
Restaurant (City Program – Development Component)	Restaurant	15,500 square feet	0.005 pound/square feet/day	77.5
Retail (City Program – Development Component)	Retail	12,000 square feet	0.006 pound/square feet/day	72
RV park (GB Capital Component)	Hotel	135 rooms	2 pounds/room/day	270
Modular Cabins (GB Capital Component)	Hotel	60 rooms	2 pounds/room/day	120
Hotel 1 (GB Capital Component)	Hotel	40 rooms	2 pounds/room/day	80
Hotel 2 (GB Capital Component)	Hotel	60 rooms	2 pounds/room/day	120
Retail space (GB Capital Component)	Retail	16,500 square feet	0.006 pound/square feet/day	99
Hotel 3 (GB Capital Component)	Hotel	282 rooms	2 pounds/room/day	564
Hotel 4 (GB Capital Component)	Hotel	81 rooms	2 pounds/room/day	162
Admin/Rec building (GB Capital Component)	Commercial Retail	10,000 square feet	0.006 pound/square feet/day	60
Restroom/Laundry facility (GB Capital Component)	Commercial Retail	4,000 square feet	0.006 pound/square feet/day	24
			Total Projected Pounds per Day	1,948.5

4.14.4.2 Thresholds of Significance

The following significance criteria are based on Appendix G of the State CEQA Guidelines and provide the basis for determining the significance of impacts associated with the demand placed on and expansions associated with utilities and energy use resulting from implementation of the proposed project. The determination of whether a utilities impact would be significant is based on

the professional judgment of the District as lead agency supported by the recommendations of qualified personnel at ICF and is based on the evidence in the administrative record.

Impacts are considered significant if the project would result in any of the following:

1. Require or result in the relocation or construction of new or expanded water, or wastewater treatment or stormwater drainage, electrical power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects.
2. Water: Result in insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
3. Wastewater: Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
4. Solid Waste: Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
5. Solid Waste: Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

The District and the City do not currently have specific criteria for quantifying impacts related to solid waste generation and disposal. Solid waste is collected and processed by the City's franchised waste haulers; therefore, City policies would apply to the collection and processing of solid waste generated by the proposed project.

4.14.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant effects.

Impact Discussion

Water

A WSA was prepared by SWA (Appendix N) to determine the future water demand associated with the proposed project to determine whether there is sufficient supply to meet the future water demand and whether the relocation or construction of new or expanded water facilities (which could cause significant effects) would be necessary.

Construction

Construction of the proposed project would involve construction of an RV park, modular cabins, dry boat storage, up to four hotels, an expanded marina (GB Capital Component); a rail connector track and storage track (Pasha Rail Improvement Component); the Pasha Road Closures Component; Segment 5 of the Bayshore Bikeway; and hotel, restaurant, retail, and/or a combination of

tourist-/visitor-serving commercial development (City Program – Development Component). Construction would occur in two phases and is anticipated to occur over approximately 24 to 60 months. The first phase would include all of the Balanced Plan improvements, all of the Phase 1 activities of the GB Capital Component (see Section 3.4.2, *GB Capital Component*), the Pasha Rail Improvement Component, Pasha Road Closures Component, and all of the Bayshore Bikeway Component. This first phase is anticipated to begin around 2022. The second phase would include Phase 2 of the GB Capital Component and the City Program – Development Component. For purposes of the environmental analysis, Phase 2 is anticipated to begin by 2025 even though actual buildout of Phase 2 would be entirely dependent upon future market conditions.

Water would be required during construction of both phases of the proposed project for activities such as dust suppression—including during demolition, the mixing of concrete, light washing of equipment and tools consistent with water quality regulations, and for drinking water for construction workers. Water usage during construction would be temporary and it is possible that reclaimed water could be used for dust suppression, equipment washing, etc., which would reduce the quantity of potable water required. SWA's UWMP does not include assumptions for construction water use. Construction water usage would result in a less-than-significant impact.

Operation

Implementation of the proposed project would introduce new employees, visitors, and hotel guests to the project site, which would require an additional 100.8 AFY of water, which would increase demand on existing water conveyance facilities that would serve the project. A detailed analysis of impacts of the proposed project on water supply is provided below in Threshold 2.

Water demand would increase as a result of new land uses including hotels, retail, and other commercial and visitor-serving development. To accommodate the additional water demand, new or expanded water conveyance infrastructure (i.e., new, upgraded, relocated, or expanded water lines into specific future project sites) would potentially be needed and installed by the project proponents. However, installation of new or expanded water pipelines to serve the Balanced Plan, GB Capital Component, and City Program – Development Component could result in impacts associated with ground-disturbing activities. The specifications of individual future development, including timing, location, and size, are not known at this time; therefore, the proposed project could potentially result in a substantial increase in water demand that could exceed the water supplies available from existing entitlements and resources. Consequently, the proposed project could require or result in relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant effects without mitigation (**Impact-UTIL-1**).

Fire-flow analyses prepared for the proposed project identify that SWA's water distribution system has limitations in meeting all projected fire-flow demands. According to the WSA, the projected fire-flow demand of 6,250 gallons per minute for the City Program – Development Component and 7,250 gallons per minute for the 81-room hotel (to be operated under Phase 2 of the GB Capital Component), both of which are rated at 20 pounds per square inch for 4 hours, added to maximum-day demands for SWA's distribution system would not be met through the existing, nearby 12-inch PVC pipelines. In order to meet the fire-flow demands plus maximum-day demands, the existing 12-inch pipelines would need to be upgraded to 16-inch PVC pipelines, as shown on Figures 4.14-1 and 4.14-2. Therefore, due to the pipeline upgrades needed to support SWA's water distribution system, potential impacts are considered to be significant (**Impact-UTIL-2**).



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Figure 4.14-1
Bay Marina Drive Pipeline Upgrades
National City Bayfront Projects & Plan Amendments EIR



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Figure 4.14-2
Marina Way Pipeline Upgrades
National City Bayfront Projects & Plan Amendments EIR

Wastewater

The proposed project would be connected to the City's sanitary sewer system, where wastewater would be processed and sanitized at the PLWTP. As discussed under Section 4.14.2.1, *Wastewater,* the PLWTP currently meets the wastewater discharge requirements of its NPDES Permit. Wastewater treatment requirements for the proposed project would be based on all applicable state and federal regulations and policies including the NPDES Permit and would include limitations on effluent discharge and receiving water. In general, effluent discharge requirements include specifications for adequate disinfection treatment and limitations on radioactivity, pollutant concentrations, sediments, pH, temperature, and toxicity.

Construction

Construction of the proposed project would involve the removal of pavement, demolition, excavation and minor grading, filling and compaction, and construction of above-ground facilities and buildings. Additionally, the proposed waterside improvements would involve the construction of new moorings, piles, docks, and gangways. Construction of the proposed project is anticipated to require a daily maximum of approximately 395 construction workers on the site. During construction, it is anticipated that portable temporary restroom facilities would be brought to the site for construction workers. Wastewater generated at the portable restroom facilities would not be disposed of at the project site but would be hauled away and disposed of at an appropriate facility in accordance with Regional Water Quality Control Board regulations. No wastewater treatment facilities, infrastructure improvements, or other expansions would be required as a result of project construction. Therefore, impacts would be less than significant.

Operation

Operation of the proposed project components would generate wastewater that is consistent with that of hotel, retail, and other commercial uses. Wastewater generated by the waterside component would be consistent with the existing marina. During project operations, wastewater generation at the project site would increase from existing conditions. The additional projected wastewater generated as a result of implementation of the proposed project is approximately 150,183 gallons per day. The PLWTP has a daily wastewater treatment capacity of 240 mgd and a peak wet-weather capacity of 432 mgd. In 2015, the measured wastewater collected was 136.2 mgd, which leaves an available capacity of approximately 104 mgd if this trend continues. The additional generation of 150,183 gallons per day of wastewater associated with the proposed project represents 0.0014% of the PLWTP's remaining annual treatment capacity, which is an insignificant amount relative to the remaining treatment capacity. Therefore, the projected wastewater generated with implementation of the proposed project would not exceed the capacity of the PLWTP.

Connection to the City's existing wastewater treatment system would adhere to all City requirements. All of the proposed project's sewage would be routed to the sewer mains under the portions of 32nd Street, Tidelands Avenue, 23rd Street, and Cleveland Avenue. However, per Chapter 4 of the City Municipal Code, adequate sewer capacity must be determined by the City Engineer prior to development. Building permits would not be issued if the City Engineer has determined that adequate sewer capacity does not exist, and all development must comply with Municipal Code Sections 14.06.080 and 14.06.060. However, the project components could potentially result in a substantial increase in wastewater generation that could potentially require upgrades to various onsite and offsite sewer lines and other sewer infrastructure to accommodate

the increased wastewater generated by the proposed project. Installation of new or expanded sewer infrastructure to serve the project components could result in impacts associated with ground-disturbing activities.

Construction of new or expanded wastewater facilities could result in physical impacts on the environment. Therefore, impacts are considered significant prior to incorporation of any mitigation (**Impact-UTIL-3**).

Stormwater Facilities

The project site is largely built out and would therefore not experience a substantial increase in impervious surfaces compared to existing conditions. However, project components including the City Program – Development Component and GB Capital Component would be constructed in areas that are currently undeveloped and could result in some increase in impervious surfaces compared to the existing condition. As such, the proposed project would potentially require new or expanded stormwater facilities. In the event that new or expanded stormwater facilities are required, the construction of these facilities could result in physical impacts on the environment. Therefore, impacts are considered significant without mitigation (**Impact-UTIL-4**).

Electricity, Natural Gas, and Telecommunications Facilities

The proposed project would result in an incremental increase in electricity, natural gas, and telecommunications demand. It is anticipated that construction and operation of the proposed project would require new points of connection for electricity, natural gas, and telecommunications from the existing utility lines and possible upgrades of the facilities. The project site and surrounding areas are highly urbanized and are currently served by existing utility infrastructure, and the proposed project would not be extending any utility or service system into undeveloped areas that are currently unserved by utilities. However, future development under the proposed project could potentially require upgrades to various onsite and offsite electricity, natural gas, and telecommunications facilities in order to accommodate the electricity, natural gas, and telecommunications demand of the project components. Installation of new or expanded electricity, natural gas, or telecommunications facilities to serve the project components could result in impacts associated with ground-disturbing activities. In the event that new or expanded electricity, natural gas, or telecommunications facilities are required, the construction of these facilities could result in physical impacts on the environment. Therefore, impacts are considered significant prior to incorporation of any mitigation (**Impact-UTIL-5**).

Level of Significance Prior to Mitigation

Implementation of the proposed project would potentially require or result in the relocation or construction of new or expanded wastewater treatment or stormwater drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant effects. Furthermore, there is inadequate water infrastructure to serve the project's projected fire-flow demand. Potentially significant impact(s) include:

Impact-UTIL-1: Insufficient Water Facilities Available to Serve the Proposed Project (Balanced Plan, GB Capital Component, and City Program – Development Component). Due to the potentially significant increase in water demand associated with the operation of future development as a result of implementation of the proposed project, the relocation or construction of

new or expanded water facilities may be required to provide water to the project components. Therefore, potential impacts are considered to be significant.

Impact-UTIL-2: Insufficient Pipeline Capacity to Meet the Fire Flow Demands Plus Maximum Day Demands (GB Capital Component, and City Program – Development Component). In order to meet the fire-flow demands of the City Program – Development Component and the 81-room hotel to be operated under the GB Capital Component, plus maximum-day demands, existing SWA 12-inch PVC pipelines would need to be upgraded to 16-inch PVC pipelines. In the event that upsizing of the existing 12-inch pipelines does not occur, there would be insufficient capacity to accommodate fire-flow demands of the project. Therefore, potential impacts are considered to be significant.

Impact-UTIL-3: Insufficient Sewer Facilities to Convey Wastewater Generated by Future Development (Balanced Plan, GB Capital Component, and City Program – Development Component). In the event that wastewater facility improvements are required and do not occur, there would be insufficient capacity to accommodate future project-specific generated wastewater. Therefore, due to the uncertainty of wastewater generation by future development, which would potentially require new sewer lines and wastewater facility improvements, potential impacts are considered to be significant.

Impact-UTIL-4: Insufficient Stormwater Facilities to Convey Stormwater Generated by Future Development (Balanced Plan, GB Capital Component, City Program – Development Component). In the event that stormwater facility improvements are required and do not occur, there would be insufficient capacity to accommodate future project-specific generated stormwater. Therefore, due to the uncertainty of stormwater generation by future development, which would potentially require stormwater facility improvements to convey project-specific generated stormwater, potential impacts are considered to be significant.

Impact-UTIL-5: Insufficient Electricity, Natural Gas, and Telecommunications Facilities to Serve the Project Components (Balanced Plan, GB Capital Component, City Program – Development Component). In the event that new or expanded electricity, natural gas, or telecommunications facilities are required to serve the project components, the construction of these facilities could result in physical impacts on the environment. Therefore, potential impacts are considered to be significant.

Mitigation Measures

For **Impact-UTIL-1**:

MM-UTIL-1: **Prepare Utility Infrastructure Study (Balanced Plan, GB Capital Component, and City Program – Development Component).** Prior to the issuance of the building permits for the Balanced Plan, GB Capital Component, and City Program – Development Component, the respective project proponent shall prepare a utility infrastructure study and submit the study to the District's Development Services Department (Balanced Plan and GB Capital Component only) and the City's Community Development Department (GB Capital Component and City Program – Development Component only) for review and approval. The utility infrastructure study shall identify the capacity of existing utilities, the ability of those utilities to serve the project proponent's project component, any necessary utility improvements that would be needed to serve project proponent's project component, and alternative locations and best management practices (BMPs), if necessary, to meet the standards described as

follows: avoidance of sensitive habitat and species, construction BMPs related to ground disturbance such as daily watering in high-dust areas and use of a stabilized construction entrance to reduce offsite tracking, a soil management plan if disturbed areas may be subject to contamination, a soil disposal plan (if applicable), a traffic management plan if roadways will need temporary closures, consistency with the City's Noise Ordinance, and avoidance of historical, archaeological, tribal cultural, and paleontological resources. The project proponent shall implement any and all new utility improvements or upgrades identified in the utility infrastructure study.

MM-UTIL-2: Implement Water Conservation Measures (Balanced Plan, GB Capital Component, and City Program – Development Component). The project proponent for the respective project component shall incorporate and implement water-efficient design measures into its individual project component. Water-efficient design measures shall at a minimum, include:

- Implement indoor water reduction measures, including high-efficiency toilets, high-efficiency urinals, low-flow faucets, and low-flow showers (as applicable).
- Install only drought-tolerant landscaping and perform any landscaping watering through a drip system or low-flow irrigation devices.
- Install cisterns above or below ground that shall collect and store runoff from rooftops and other impervious surfaces.
- Install water-efficient water coolers and equipment and monitor cooling tower and boiler water chemistry to minimize mineral buildup in the system and maximize the number of times water can be recycled through the system.
- Limit the use of turf and, in Pepper Park, limit the use of turf to activity fields.
- Educate employees on water conservation measures on an annual basis and post water conservation stickers, signs, and posters in bathrooms, kitchens, cafeterias, conference rooms, and other places where employees congregate.

For **Impact-UTIL-2**:

MM-UTIL-3: Upsize the Existing Bay Marina Drive Pipeline and Install New Pipeline Along the Proposed Road Realignment to Meet Project Fire Flow Demands (GB Capital Component and City Program – Development Component). Prior to occupancy and operation of the proposed City Program – Development Component or the four-story 81-room hotel to be operated under Phase 2 of the GB Capital Component, whichever occurs first, the project proponent for that project component (Payee) shall upsize the existing 12-inch PVC pipeline on Bay Marina Drive between the intersection of Harrison Avenue and Cleveland Avenue to a 16-inch PVC pipeline. In addition, the Payee shall install approximately 1,500 linear feet of 16-inch main pipeline along Marina Way and upsize approximately 1,700 linear feet of the existing 12-inch PVC pipeline with 16-inch pipeline. Design, permitting, and construction of the new pipelines shall be coordinated with the City Fire Marshal and SWA.

Prior to occupancy and operation of the project component that is constructed second (i.e., the GB Capital Component if the City Program – Development Component is constructed first, or the City Program – Development Component if the GB Capital Component is constructed first), the project proponent for that project component (Reimbursee) shall reimburse the Payee 50% of

the actual cost of designing, permitting, and constructing the new pipelines. Such reimbursement shall be a condition of the Coastal Development Permits for the City Program – Development Component or the four-story 81-room hotel to be operated under Phase 2 of the GB Capital Component.

For **Impact-UTIL-3**:

MM-UTIL-1: Prepare Utility Infrastructure Study (Balanced Plan, GB Capital Component, and City Program – Development Component), as described above.

MM-UTIL-4: Issue Payment for City's Sewer Capacity Fee (Balanced Plan, GB Capital Component, and City Program – Development Component). Prior to the issuance of the respective building permits for the Balanced Plan, GB Capital Component, and City Program – Development Component, the respective project proponent shall pay the City's established sewer capacity fee.

For **Impact-UTIL-4**:

MM-UTIL-1: Prepare Utility Infrastructure Study (Balanced Plan, GB Capital Component, and City Program – Development Component), as described above.

For **Impact-UTIL-5**:

MM-UTIL-1: Prepare Utility Infrastructure Study (Balanced Plan, GB Capital Component, and City Program – Development Component), as described above.

Level of Significance after Mitigation

Construction

Impacts would be less than significant.

Operation

Implementation of mitigation measure **MM-UTIL-1** would ensure the capacity of utility facilities are assessed prior to construction, and mitigation measure **MM-UTIL-2** would require the implementation of water conservation measures, which would require the application of BMPs to reduce potential impacts on the environment should new or expanded facilities be required (**Impact-UTIL-1**). Implementation of **MM-UTIL-1** and **MM-UTIL-2** would reduce **Impact-UTIL-1** to a level below significance.

Implementation of mitigation measure **MM-UTIL-3** would reduce impacts associated with pipeline capacity to meet the fire-flow demands plus maximum-day demands (**Impact-UTIL-2**) to a less-than-significant level by requiring the upsizing of existing 12-inch PVC pipeline on Bay Marina Drive.

Implementation of **MM-UTIL-4** would reduce impacts associated with sewer capacity (**Impact-UTIL-3**) by requiring project proponents to issue payment for the City's sewer capacity fee. Implementation of mitigation measure **MM-UTIL-1** would require the preparation of a utility infrastructure study that would require sufficient sewer, stormwater, electricity, natural gas, and telecommunications facilities to be available to serve operation of the proposed project (**Impact-UTIL-3**, **Impact-UTIL-4**, and **Impact-UTIL-5**). Implementation of **MM-UTIL-4** and **MM-UTIL-1**

would reduce **Impact-UTIL-3** to a less-than-significant level. Implementation of **MM-UTIL-1** would reduce **Impact-UTIL-4** and **Impact-UTIL-5** to less-than-significant levels.

Implementation of mitigation measure **MM-UTIL-1** would ensure electricity, natural gas, and telecommunications facilities with the ability to serve the project components are assessed prior to construction. Therefore, **Impact-UTIL-5** would be reduced to a level below significance.

Threshold 2: Implementation of the proposed project would not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Impact Discussion

The analysis below focuses on the project's water demand compared with the projected supply. Section 15155 of the State CEQA Guidelines defines a water-demand project as one that would demand an amount of water equivalent to, or greater than, the amount of water required by a hotel having more than 500 rooms. According to the WSA, projected demands for years 2020 through 2040 were calculated using the SANDAG 2050 Regional Growth Forecast for population and multiplying the population by 105 GPCD. The GPCD rate represents the average demand in SWA's service area over fiscal years 2005–2015. This 10-year period included both wet and dry years, and also incorporates water savings that took place in recent years as a result of the drought. Therefore, the 105 GPCD rate is considered to be a realistic anticipation of future water demands under a variety of hydrologic conditions and taking into consideration long-term water savings.

Construction

Water would be required during construction of the proposed project for activities such as dust suppression, the mixing of concrete, light washing of equipment and tools consistent with water quality regulations, and construction worker water usage. During construction this usage would be temporary, and it is possible that reclaimed water could be used for dust suppression, equipment washing, etc., which would reduce the quantity of potable water required. Construction water usage would result in a less-than-significant impact.

Operation

Implementation of the proposed project would introduce new employees, visitors, and hotel guests to the project site, which would require an additional 100.8 AFY of water. The total water demands associated with the proposed project were not included in UWMPs previously prepared for SWA. In addition, the total water demands have not been specifically included in the San Diego County Water Authority's 2015 UWMP. However, according to the WSA prepared for the proposed project, water demands associated with the project components would be met by purchasing additional water from the San Diego County Water Authority and Metropolitan Water District.

As noted, the proposed project would require an additional 100.8 AFY of water. The total estimated water demand resulting from the proposed project would be accommodated by SWA's anticipated demand of 26,319 AFY in 2040. Therefore, the proposed project would not result in a substantial increase in water demand that would exceed the water supplies available from existing entitlements and resources. However, as noted in the WSA, the Imperial Irrigation District (IID), one of the largest water rights holders of Colorado River water, did not approve of the Lower Basin Drought

Contingency Plan (DCP) authorized by Congress in April 2019 in the Colorado River Drought Contingency Plan Authorization Act. IID has filed a lawsuit in state court alleging that state approval of the DCP violated CEQA. Therefore, due to the uncertainty of the pending lawsuit filed by IID and the possibility that Metropolitan Water District would need to cut back Colorado River water deliveries in accordance with the Lower Basin DCP—in addition to uncertainty with legal and regulatory issues involving utilization of the Delta to convey State Water Project water—and the potential for prolonged droughts due to climate change that could last more than the multiple 3-dry-year scenario analyzed in the WSA prepared for the proposed project, SWA cannot guarantee that at some point in the future supply of imported water would not be diminished, and such reduction in supply would affect water availability for the proposed project. In that scenario, the proposed project would not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years, and the impact would be potentially significant (**Impact UTIL-6**). Water use would be reduced through water conservation measures. SWA would continue to implement existing water conservation measures identified in SWA's UWMP, as required by the Water Conservation Act of 2009. The project would incorporate water-efficient design measures into the proposed project design to help reduce overall water demands within the SWA service area.

Level of Significance Prior to Mitigation

Due to the uncertainty of sufficient water supplies available to serve the proposed project during normal, dry, and multiple dry years, impacts would be potentially significant. Potentially significant impact(s) include:

Impact-UTIL-6: Insufficient Water Supplies Available to Serve the Proposed Project (Balanced Plan, City Program – Development Component, and GB Capital Component). Due to the uncertainty with the pending lawsuit filed by IID, potential cutback in Colorado River water deliveries in accordance with the Lower Basin DCP, and potential for prolonged droughts due to climate change that could last more than the multiple 3-dry-year scenario analyzed in the WSA prepared for the proposed project, SWA cannot guarantee that at some point in the future, supply of imported water would not be diminished. Therefore, given this uncertainty regarding available water supply, which is necessary for operation of the proposed project, potential impacts are considered to be significant.

Mitigation Measures

For **Impact-UTIL-6**:

MM-UTIL-1: **Prepare Utility Infrastructure Study** (**Balanced Plan, GB Capital Component, and City Program – Development Component**), as described above.

MM-UTIL-2: Implement Water Conservation Measures (Balanced Plan, **City Program – Development Component, and GB Capital Component)**, as described above.

MM-UTIL-5: Confirm Water Supply Availability for Recreational or Ornamental Water Feature (Balanced Plan, **City Program – Development Component, and GB Capital Component).** Prior to construction of any recreational or ornamental water feature, if it is determined that there is a low water supply, then the feature shall not be constructed until water supply is secured or there is an alternative design that incorporates low water use.

MM-UTIL-6: Confirm Water Supply Availability for Development Project Components Prior to Issuance of Building Permits (Balanced Plan, City Program – Development Component, and GB Capital Component). Water availability shall be confirmed by SWA prior to issuance of building permits. The confirmation of water availability shall be provided in written form by SWA. If SWA indicates there is not sufficient water supply to serve the project, the scale of the project shall be reduced to a level that is serviceable by SWA or use recycled water.

Level of Significance After Mitigation

Construction

Impacts would be less than significant.

Operation

Implementation of mitigation measure **MM-UTIL-1** would ensure the capacity of utility facilities is assessed prior to construction, and mitigation measure **MM-UTIL-2** would require the implementation of water conservation measures. Implementation of **MM-UTIL-5** and **MM-UTIL-6** would ensure sufficient water supplies are available or require project design to match availability, prior to construction and issuance of building permits, respectively. Therefore, **Impact-UTIL-6** would be reduced to a less-than-significant level.

Threshold 3: The proposed project would result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Impact Discussion

Construction

Construction of the proposed project would involve excavation and minor grading, filling and compaction, utility installation, and construction of above-ground facilities and buildings. Additionally, the proposed project includes the construction of an RV park, modular cabins, dry boat storage, up to four hotels, and additional moorings and improvements to the marina. Construction of the proposed project is anticipated to require a daily maximum of approximately 395 construction workers on the site. During construction, it is anticipated that portable temporary restroom facilities would be brought to the site for construction workers. Wastewater generated at the portable restroom facilities would be hauled away to an authorized sanitation cleaning facility that would treat the waste safely and sanitarily. The companies that rent the portable restroom facilities have partnerships with sanitation companies that take care of the waste removal in accordance with Regional Water Quality Control Board regulations. Construction of the proposed project is not anticipated to generate substantial amounts of wastewater. Therefore, wastewater treatment facilities, infrastructure improvements, or other expansions would not be required as a result of project construction. Impacts would be less than significant.

Operation

Operation of the proposed project would increase wastewater generation at the site from existing conditions. Implementation of the proposed project would result in an additional 150,183 gallons per day of wastewater from the introduction of new hotel guests, retail visitors, permanent employees, and recreational waterfront visitors. The PLWTP has a treatment capacity of 240 mgd and a peak wet-weather capacity of 432 mgd, with approximately 104 mgd capacity remaining. The additional generation of 150,183 gallons per day of wastewater associated with the proposed project represents 0.0014% of the PLWTP's remaining annual treatment capacity, which is an insignificant amount relative to the remaining treatment capacity. Therefore, the proposed project's projected wastewater generation would not exceed the capacity of the PLWTP. Because wastewater generated by the proposed project would be treated within the permitted capacity of the PLWTP, the proposed project would not result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Therefore, impacts would be less than significant.

Level of Significance Prior to Mitigation

Construction and operation of the proposed project would not result in a determination by the City Wastewater Division that it does not have adequate wastewater treatment capacity to serve the project's projected demand in addition to the provider's existing commitments. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Impacts would be less than significant.

Threshold 4: Implementation of the proposed project <u>would not</u> generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

Impact Discussion

Construction

During construction of the proposed project, the majority of construction and demolition debris would be diverted from landfills by using recycling, reuse, and diversion programs in accordance with the City's Municipal Code Chapter 15.80.060. Materials that are not recyclable would be taken to Otay Landfill. Otay Landfill has a permitted remaining capacity of 21,194,008 cubic yards.

Construction of the proposed project would occur over a mid- to long-term period and has the potential to generate solid waste, including wood, cardboard, metals, plastics, concrete, and other building materials. The proposed project involves infrastructure development that is customer

dependent. Therefore, specific amounts of construction and demolition debris are unavailable. However, construction of the proposed project would be required to comply with applicable waste diversion requirements, including Section 15.80.0900 of the City's Municipal Code and AB 939, which mandate that projects requiring building and demolition permits pay a refundable waste diversion deposit and divert at least 50% of their debris by recycling, reusing, or donating usable materials. Compliance with these applicable regulations would ensure that solid waste generated by construction activities occurring under the proposed project would have less-than-significant impacts.

Therefore, because a substantial majority of the construction and demolition materials would be recycled or reused, instead of being disposed of in a local landfill, and the local landfill has available capacity for the remaining solid waste, the proposed project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impacts from construction of the proposed project would be less than significant.

Operation

Diversion rates are used to report solid waste disposal in the city and to address AB 939 recycling goals, which require each city in the state to divert at least 50% of its solid waste from landfill disposal through measures such as source reduction, recycling, and composting (see Section 4.14.3, *Applicable Laws and Regulations*). CalRecycle replaced the California Integrated Waste Management Board as the department in charge of reviewing a jurisdiction's progress in meeting the Integrated Waste Management Act requirements. According to CalRecycle's 2019 Jurisdiction Diversion/ Disposal Rate Summary for National City, the City meets its target employment disposal rate of 20.7 pounds per person per day with an annual rate of 12.2 pounds per person per day (CalRecycle 2019). The City's diversion rate is 53%, which is consistent with the statewide average.

The proposed project's solid waste disposal needs would be served by EDCO Waste and Recycling Services. EDCO would transport solid waste to the Otay Landfill. The Otay Landfill is projected to reach full capacity in 2030. When the Otay Landfill closes, EDCO would be responsible for disposing the solid waste generated by the proposed project at a landfill in the region with sufficient permitted capacity.

AB 939 requires that local county agencies must prepare and implement Integrated Waste Management Plans, which must include a Siting Element. The Siting Element must include a projection of the amount of disposal capacity that would be needed to accommodate the solid waste generated within the local jurisdiction for a 15-year period. The San Diego County Integrated Waste Management Plan Countywide Summary Plan contains the Countywide Siting Element, which outlines a combination of strategies including existing, proposed, and tentative landfills or expansions; increased diversion efforts; and out-of-county transport of solid waste to serve all jurisdictions in the county for at least 15 years of disposal capacity (County of San Diego 2005). The August 2017 Five-Year Review Report, approved by CalRecycle in 2018, updated the planning for 15 years of county-wide landfill disposal capacity (CalRecycle 2018). The Five-Year Review Report provides estimates for available landfill capacity within San Diego County for the state-mandated 15-year period, with the last permitted landfill in the county projected to close in 2059. The Five-Year Review Report indicates, given several different possible scenarios, that San Diego County has sufficient landfill capacity to accommodate disposal for the next 15 years. Given this conclusion,

there would be sufficient capacity for disposal of solid waste generated by the proposed project in the 15-year timeframe at a permitted landfill in the region.

Solid waste generation estimates for the proposed project assume that the project site would operate at its maximum practical capacity during the near-term planning horizon (year 2025). Once operational, the proposed project would result in a generation of approximately 711,202 pounds, or 1,315 cubic yards, of solid waste per year. Otay Landfill is closest to the project site and, as shown in Table 4.14-4, has a permitted remaining capacity of 21,194,008 cubic yards. The proposed project's annual operational contribution of solid waste would be 0.00006% of the landfill's remaining capacity. This represents a conservative estimate because all project components would be required to comply with applicable waste diversion requirements. However, Otay Landfill is currently projected to close in 2030. In the event that Otay Landfill's capacity is reached, solid waste generated at the project site would be routed to Sycamore Canyon Landfill, which has a remaining capacity of 113,972,637 cubic yards, or Borrego Landfill, which has a remaining capacity of 111,504 cubic yards. Both of these landfills could sufficiently accommodate solid waste generated under the proposed project. Therefore, implementation of the proposed project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impacts from operation of the proposed project would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Impacts would be less than significant.

Threshold 5: Implementation of the proposed project <u>would</u> comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Impact Discussion

Construction

During construction of the proposed project, the vast majority of construction and demolition debris would be recycled either on site or at local recycling facilities in accordance with the City's Municipal Code (Chapter 15.80, *Construction and Demolition Debris*). Materials that are not recyclable would be taken to Otay Landfill, which has a permitted remaining capacity of 21,194,008 cubic yards. Assuming that at least 50% of the remaining construction waste would be recycled off site per the City's Municipal Code, approximately 209 cubic yards of construction waste would be taken to the Otay Landfill. This would represent approximately 0.000009% of the landfill's remaining capacity.

Therefore, because a substantial majority of the construction and demolition materials would be recycled or reused both on site and off site instead of being disposed of in a local landfill, and the local landfill has available capacity for the remaining solid waste, construction activities associated with the proposed project would be required to comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Impacts would be less than significant.

Operations

As noted above under Threshold 4, diversion rates are used to report solid waste disposal in the city and to address AB 939 recycling goals. According to CalRecycle's 2019 Jurisdiction Diversion/ Disposal Rate Summary for National City, the City meets its target employment disposal rate of 20.7 pounds per person per day with an annual rate of 12.2 pounds per person per day (CalRecycle 2019). The City's diversion rate is 53%, which is consistent with the statewide average. Operation of the proposed project would be required to continue to comply with AB 939. Therefore, operation of the proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, and impacts would be less than significant.

Level of Significance Prior to Mitigation

Construction and operation of the proposed project would not conflict with federal, state, and local management and reduction statutes and regulations related to solid waste. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Impacts would be less than significant.

Chapter 5
Cumulative Impacts

5.1 Overview

This chapter considers the cumulative impacts of past, present, and reasonably foreseeable future projects and the proposed project's contribution to these impacts. *Past projects* are defined as those that were recently completed and are now operational. *Present projects* are defined as those that are under construction but not yet operational. *Reasonably foreseeable future projects* are defined as those for which a development application has been submitted or credible information is available to suggest that project development is a probable outcome at the time the Notice of Preparation (NOP) was issued (December 20, 2018).

With the incorporation of mitigation measures, the proposed project would result in less than cumulatively considerable contributions to impacts from past, present, and reasonably foreseeable future projects for the following resources.

- Aesthetics and Visual Resources
- Air Quality and Health Risk
- Biological Resources
- Cultural Resources, Tribal Cultural Resources, and Paleontological Resources
- Energy
- Hazards
- Noise and Vibration

However, even with mitigation incorporated, the proposed project would result in cumulatively considerable and unavoidable contributions to impacts for the following resources.

- Greenhouse Gas and Climate Change
- Transportation, Circulation, and Parking

The proposed project's contribution to all other cumulative impacts would not be cumulatively considerable, including the following resources.

- Hydrology and Water Quality
- Land Use and Planning
- Population and Employment
- Public Services and Recreation
- Utilities and Service Systems (Water Supply)

Table 5-1 summarizes the significant cumulative impacts and mitigation measures discussed in Section 5.3, *Cumulative Impact Analysis*, below.

Table 5-1. Summary of Significant Cumulative Impacts and Mitigation Measures

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Air Quality and Health Risk			
Impact-C-AQ-1: New Land Use Designations Not Accounted for in the RAQS and SIP	**MM-AQ-1:** Update the RAQS and SIP with New Growth Projections	Less than Cumulatively Considerable	The temporary inconsistency with the current Regional Air Quality Strategy (RAQS) and State Implementation Plan (SIP) associated with the proposed land use designation changes would be rectified when the RAQS and SIP are updated.
Impact-C-AQ-2: Emissions in Excess of Cumulative Thresholds During Construction	**MM-AQ-2**: Implement Diesel Emission-Reduction Measures During Construction **MM-AQ-3:** Implement Fugitive Dust Control During Construction **MM-AQ-4:** Use Low-VOC Interior and Exterior Coatings During Construction **MM-AQ-5**: Use Modern Harbor Craft During Construction Activities **MM-AQ-6:** Stagger Overlapping Construction Phases and Components	Less than Cumulatively Considerable	Mitigation would reduce the project's incremental contribution to cumulative impacts related to construction emissions to a level that is less than cumulatively considerable.
Impact-C-AQ-3: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Operations	**MM-AQ-7**: Restrict Installation of Fireplaces and Firepits in New Construction	Less than Cumulatively Considerable	Mitigation restricting use of wood-burning fireplaces and firepits at the City Program – Development Component, the GB Capital Component, and the Balanced Plan would reduce the project's incremental contribution to cumulative impacts, as volatile organic compound (VOC) emissions would be reduced to a level below the threshold.
Impact-C-AQ-4: Health Effects During Construction and Operations	**MM-AQ-2** through **MM-AQ-6**	Less than Cumulatively Considerable	Mitigation would reduce the project's incremental contribution to cumulative health impacts to a level below thresholds.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Greenhouse Gas Emissions and Climate Change			
Impact-C-GHG-1: Inconsistency with District and City Climate Action Plans' Numerical Targets	**MM-GHG-1:** Implement Diesel Emission-Reduction Measures During Project Construction and Operation **MM-GHG-2:** Comply with District CAP Measures **MM-GHG-3:** Comply with the Applicable City CAP Measures **MM-GHG-4:** Use Modern Harbor Craft for Waterside Construction Activities **MM-GHG-5:** Implement Electric Heating and Zero-Net-Energy Buildings **MM-GHG-6:** Implement a Renewable Energy Project On Site, or Other Verifiable Actions or Activities on Tidelands or Within Another Adjacent Member City, or Purchase the Equivalent GHG Offsets from a CARB-Approved Registry or a Locally Approved Equivalent Program **MM-GHG-7:** Implement a Renewable Energy Project On Site, or Other Verifiable Actions or Activities Within National City or Within an Adjacent Community, or Purchase the Equivalent GHG Offsets from a CARB-Approved Registry or a Locally Approved Equivalent Program (City Program– Development Component)	Cumulatively Considerable and Unavoidable	With mitigation, project-related GHG emissions would achieve the numerical efficiency targets for lodging uses, but because it cannot be stated with certainty that the project would result in emissions that would represent a fair share of the requisite reductions toward the statewide carbon neutrality goal, impacts would be significant after mitigation.
Impact-C-GHG-2: Inconsistency with District Climate Action Plan and Only Partial Consistency with Statewide Greenhouse Gas	Implement **MM-GHG-1, MM-GHG-2, MM-GHG-4**, **MM-GHG-5,** and **MM-GHG-6**	Less than Cumulatively Considerable	Mitigation would ensure consistency with plans, policies, and regulatory programs.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Reduction Plans, Policies, and Regulatory Programs			
Impact-C-GHG-3: Inconsistency with the City's Climate Action Plan and Only Partial Consistency with Statewide Greenhouse Gas Reduction Plans, Policies, and Regulatory Programs	Implement **MM-GHG-3** and **MM-GHG-7**	Less than Cumulatively Considerable	Mitigation would ensure consistency with plans, policies, and regulatory programs.
Noise and Vibration			
Impact-C-NOI-1: Exceedance of the City's General Plan Noise Exposure Standards Due to Traffic Noise at Onsite Visitor Accommodations	**MM-NOI-4:** Design and Construct the Proposed Hotel at the City Program – Development Component Site to Achieve an Interior Noise Level of 45 dB CNEL or Less at Noise-Sensitive Occupied Spaces	Less than Cumulatively Considerable	Mitigation would reduce the project's contribution to cumulative traffic noise impacts to a level less than significant.
Impact-C-NOI-2: Exceedance of the City's General Plan Noise Exposure Standards Due to Rail Noise at Onsite Visitor Accommodations	**MM-NOI-5:** Reduce Rail Noise Levels at the Proposed GB Capital RV Sites to 65 dB CNEL or Less **MM-NOI-6**: Design and Construct the Hotels at the GB Capital Component to Achieve an Interior Noise Level of 45 dB CNEL or Less at Noise-Sensitive Occupied Spaces	Less than Cumulatively Considerable	Mitigation would reduce the project's contribution to cumulative rail noise impacts to a level less than significant.
Transportation, Circulation, and Parking			
Impact-C-TRA-1: Generate Cumulatively Considerable Vehicles Miles Traveled in Exceedance of Employment-Based Thresholds During Project Operations	**MM-TRA-1:** Implement TDM and VMT Reduction Measures	Cumulatively Considerable and Unavoidable	Despite the implementation of the Transportation Demand Management (TDM) and Vehicle Miles Traveled (VMT) reduction measures, the employment-based VMT generated by the proposed project would not be reduced below the applicable threshold.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-C-TRA-2: Induced Travel and Increased Vehicle Miles Traveled from Closure of Bay Marina Drive to Through Traffic at Marina Way	**MM-TRA-2:** Implement TDM Plan	Cumulatively Considerable and Unavoidable	The proposed closure of Bay Marina Drive would result in changes to the transportation network that would induce travel and increase the study area's total VMT. It is not guaranteed that the employment trip reduction measures would be effectively executed such that the study area's total VMT would not be reduced to below the applicable threshold.

5.2 Cumulative Methodology

According to Section 15130(b) of the State CEQA Guidelines, cumulative impact analysis may be conducted using one of two methods: the List Method, which includes "a list of past, present, and probable activities producing related or cumulative impacts"; or the Plan Method, which uses "a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact." The cumulative analysis of near-term conditions that follows for a majority of issue areas uses the List Method. However, the Transportation Impact Analysis for the proposed project bases the 2050 future year conditions on the San Diego Association of Governments' (SANDAG's) Series 13 Travel Demand Model. Consequently, the cumulative analyses for transportation as well as traffic-related impacts on air quality, greenhouse gas emissions, and noise and vibration use the Plan Method. Additionally, the cumulative analysis related to future water supply in the utilities and service systems chapter uses the Plan Method because it is based on the adopted 2015 Sweetwater Authority Urban Water Management Plan (UWMP). A Water Supply Assessment (WSA) was also prepared by the Sweetwater Authority (SWA) (August 2019) for the proposed project.

5.2.1 Cumulative Project Lists

Fifty-three cumulative projects were identified for this analysis. The projects listed in the proposed project's cumulative study area have had applications submitted or have been approved, are under construction, or have recently been completed. The cumulative projects identified in the study area are listed in Table 5-2 (project numbering corresponds to numbers shown on Figure 5-1). Generally speaking, the geographic scope of the area affected by cumulative effects varies according to the issue area. The study area for each issue area is described further under the respective resource headings that follow.

Table 5-2. Present and Reasonably Foreseeable Cumulative Projects

Project #	Name	Location	Description	Status
1	Interim Segment 5 of the Bayshore Bikeway	Tidelands Avenue between Civic Center Drive on the north and 32nd Street on the south, and on 32nd Street between Tidelands Avenue on the west and Marina Way on the east	SANDAG proposed an interim alignment of Segment 5 of the Bayshore Bikeway on Tidelands Avenue between Civic Center Drive on the north and 32nd Street on the south, and on 32nd Street between Tidelands Avenue on the west and Marina Way on the east. This route would be interim until the permanent alignment, which is a component of the proposed project, is constructed or an alternate interim alignment is identified and constructed. This interim alignment is proposed to include: a Class I bike path on the west side of Tidelands Avenue from Civic Center Drive to approximately 900 feet south of Civic Center Drive; a Class II bike lane on both sides of Tidelands Avenue between the Class I segment and 32nd Street; and a Class III bike route (shared lane markings) on 32nd Street between Tidelands Avenue and Marina Way. The Class I facility is proposed to remain in place as an ancillary bike path after the permanent alignment is constructed.	Completed in 2018.
2	Wayfinding Signage Program	Various locations on District Tidelands and City property	This project includes a Memorandum of Understanding (MOU) between the District and the City to fund the City's wayfinding signage program with funds from the District's Maritime Terminal Impact Fund. The MOU specifies the terms and conditions of payment to the City for the City's installation of various wayfinding signage to direct National City visitors and residents to key attractions, amenities, and features located on, or adjacent to, District Tidelands. The signage helps to enhance urban design; reinforce community identity; reduce confusion for drivers,	Completed in 2018.

Project #	Name	Location	Description	Status
			pedestrians, and bicyclists; improve access for District tenants and other businesses in the area; improve land use compatibility with the roadway network; and improve traffic flow and enhance safety. By creating wayfinding signage that is informative to traffic and pedestrians, the City intends to improve on-tidelands operations by providing a more efficient access to the National City Marine Terminal (NCMT), while directing trucks and industrial parking from the local streets and neighborhoods located off-tidelands. The placement and information provided on the wayfinding signage identifies routes for commercial, recreational, residential, visitor, and pedestrian uses promoting routes that are more agreeable to each user group, thus increasing efficiencies. The signs are sited in various locations on District Tidelands and City property. This project was completed in 2018. Additional information on the environmental effects of this project is available at the District's Office of the District Clerk.	
3	Westside Infill Transit Oriented Development (WI-TOD) (also known as Paradise Creek Affordable Housing Project)	South of 19th Street, west of Hoover Avenue, north of 22nd Street, and east of Harding Avenue	This project, also known as the Paradise Creek Affordable Housing Project, is a 201-unit affordable housing and park development on the east side of Paradise Creek, and the expansion of Paradise Creek Educational Park on the west side of the creek. This project is incorporated into the Westside Specific Plan, which is a 100-acre plan to improve the health of the Westside community by promoting sustainable development and amortizing non-compatible land uses. The plan was adopted by the City in 2010. The project site is approximately 13 acres of the 100-acre area and is generally located south of 19th Street, west of Hoover Avenue, north of 22nd Street,	Phase I and II are complete. The Paradise Creek Educational Park is currently under construction.

Project #	Name	Location	Description	Status
			and east of Harding Avenue. The site consists of four parcels owned by the City and includes the National City Public Works Yard, the former Sun Diego Bus Charters maintenance facility, Paradise Creek, and Paradise Creek Educational Park. The site also includes portions of adjacent public rights-of-way that are generally undeveloped. This project was evaluated in the Westside Specific Plan EIR as 360 residential units, 450,000 square feet of office space, and 65,000 square feet of retail space. The EIR identified significant environmental impacts associated with air quality, greenhouse gas (GHG) emissions, noise, cultural resources, biological resources, and hazards and hazardous materials. Mitigation measures were required, and impacts on biological resources, cultural resources, and hazards and hazardous materials were reduced to less-than-significant levels with mitigation incorporated. However, even after mitigation, the plan's impacts on air quality and noise were determined to be significant and unavoidable, while the plan's cumulative contribution to significant cumulative impacts related to air quality, climate change (i.e., GHG emissions), noise, and traffic would be cumulatively considerable.	
4	NCMT Berth 24-10 Structural & Mooring Repair	National City Marine Terminal (NCMT)	This District project completed structural repairs of the concrete deck at Berth 24-10 including driving pipe-pile over 59 existing pre-stressed concrete piles; placing 3 jackets on existing concrete piles; demolishing and replacing the cap beam and bull rail; replacing the existing 50-ton double bitts and cleats with new 100-ton bollards; replacing the fenders; replacing 750 lineal feet of potable water lines, pits risers, and vaults; replacing existing	Completed in September 2017.

Project #	Name	Location	Description	Status
			electrical utilities and switchboard electrical equipment; and installing a stormwater treatment system.	
5	National City Marine Terminal Tank Farm Paving and Street Closures Project	Generally Quay Avenue, between Bay Marina Drive and 28th Street, National City, CA 91950	This project graded and paved the former tank farm parcel at NCMT and proposed closure of Quay Avenue between Bay Marina Drive and 28th Street, 28th Street between Quay Avenue and the NCMT, and 32nd Street west of Tidelands Avenue in order to provide additional space for marine terminal operations, which primarily include import, export, handling, and storage of motor vehicles.	Completed in 2018.
6	Courtyards at Kimball	12th Street and National City Boulevard	This project is located in National City and would consist of 157 residential units	This project is under construction and anticipated to be complete by the end of 2021.
7	Park Lofts	16th Street and National City Boulevard	This project is located in National City and would consist of 201 residential units	This project is undergoing revisions. Building plans expected mid-2021.
8	Raintree Courts	30th Street and D Avenue	This project is located in National City and would consist of 10 residential units and 3 live-work units totaling 1,600 square feet of mixed-use.	This project is currently in plan check and is anticipated to start construction in Fall 2021.
9	The Kimball	8th Street and K Avenue	This project is located in National City and is a mixed-use development consisting of 60 residential units and 7,857 square feet of commercial space.	This project has been completed.
10	Brencick/Kire	18th Street and F Avenue	This project is located in National City and would consist of 10 residential units	This project is has been completed.
11	Bella Vita	Sheryl Lane and 16th Street	This project is located in National City and consists of 70 residential units.	This project has been completed.
12	Tubao	Plaza Boulevard, 12th Street and Grove Street	This project is a mixed-used development consisting on 12 residential units and 796 square feet of commercial space.	This project is currently in the design phase and is anticipated to begin construction in 2022

Project #	Name	Location	Description	Status
13	Chen	8th Street and V Avenue	This project is located in National City and would consist of 80 residential units.	This project is has been completed.
14	Kamel	8th Street and V Avenue	This project is located in National City and consists of 136 residential units.	This project is currently nearing completion.
15	Palm Plaza	Plaza Boulevard and Palm Avenue	This project is located in National City and consists of 77 residential units.	This project has been completed.
16	Clubb	9th Street and K Avenue	This project is located in National City and consists of 63 residential units.	This project currently is in the design phase, but is not expected to move forward.
17	Pier 12 Replacement and Dredging at Naval Base San Diego	Pier 12 at Naval Base San Diego, San Diego, CA 92136	The project involved demolition of an inadequate existing pier (Pier 12); dredging in berthing and approach areas for a new pier; dredged material disposal at an approved ocean disposal site and permitted upland landfill; construction of a new pier and associated pier utilities, including upgrades to the electrical infrastructure at the adjacent Pier 13; and reuse of demolition concrete to create fish enhancement structures (artificial reefs). The purpose of the proposed action was to address the current and impending shortfall at Naval Base San Diego of pier infrastructure necessary to support modern Navy ship classes with deep draft-power intensive or power intensive requirements.	The project construction started in 2011 and was completed in 2016.
18	Pier 8 Replacement Naval Base San Diego	Pier 8 at Naval Base San Diego, San Diego, CA 92136	This project involves demolition of the inadequate existing Pier 8, construction of a replacement Pier 8, and provision of associated pier utilities. The purpose of the proposed action is to address the current and impending shortfall at Naval Base San Diego of pier infrastructure necessary to support modern Navy ship classes with deep-draft and power-intensive requirements.	Under construction

Project #	Name	Location	Description	Status
19	Hawaii-Southern California Training and Testing	San Diego Bay	The Navy evaluated potential environmental effects associated with ongoing military readiness activities, which include training and research, development, testing, and evaluation activities within the Hawaii-Southern California Training and Testing Study Area (which includes San Diego Bay). An environmental impact study (EIS) (known as Phase II) was completed in December 2013. A Notice of Intent to prepare another EIS (also known as Phase III) was issued on Nov 12, 2015, and public comment period concluded Jan 12, 2016. A Final EIS was completed in 2018.	Ongoing
20	Maintenance Dredging at Naval Base San Diego	Naval Base San Diego	This project conducts maintenance dredging at Piers 2, 6, 7, 13, and former Pier 14 and Chollas Creek at the Naval base. The total volume to be dredged is approximately 250, 780 cubic yards (cy) with 85,340 cy being disposed of via ocean disposal and the remaining 165,439 cy transported to an approved upland landfill. U.S. Army Corps of Engineers Permit (SPL-2013-00405-RRS) approved in June 2016.	Complete
21	National City Marine Terminal Roof 24-1 Vehicle Maintenance Building	National City Marine Terminal	This project consisted of the replacement of an existing ventilator ridge vent on the roof of building 24-1 at NCMT.	Completed in 2016.
22	Cold Ironing Phase 2 at B Street and Broadway Pier	B Street Pier and Broadway Pier, 1140 and 1000 North Harbor Drive	This project involves infrastructure components to provide shore power to existing terminal operations at the B Street and Broadway Piers (three berths) to reduce air pollutant emissions and GHG emissions while cruise ships are berthed. Initially, shore power will be available to one ship at a time; in subsequent years, two ships will be able to use shore power at the same time.	Currently in design and slated for future construction (date TBD).

Project #	Name	Location	Description	Status
23	San Diego Bay and Imperial Beach Oceanfront Fireworks Display Events	Throughout District Tidelands	Addition of an Ordinance to the District Code that established a program to regulate fireworks. Specifically, the program governs the existing and proposed new fireworks display events requiring a discretionary action by the District or operated by the District's tenants that occur within San Diego Bay and the Imperial Beach Oceanfront. Four new fireworks display events were anticipated to require a future discretionary action by the District, including three displays along the Chula Vista Bayfront and one display along the National City bayfront.	EIR was certified and Ordinance was adopted on May 25, 2017.
24	Tenth Avenue Marine Terminal Redevelopment Plan and Demolition and Initial Rail Component Project	686 Switzer Street	This was a program- and project-level EIR analysis. The program component looks at Maximum Practical Capacity of three distinct cargo nodes (e.g., Refrigerated Container, Neo-bulk/Break Bulk, Dry Bulk) to the horizon year of 2035. Long-term infrastructure investments may include up to five gantry cranes, additional and consolidated dry bulk storage capacity, enhancements to the existing conveyor system, demolition of molasses tanks and Warehouse C, additional open storage space, and on-dock intermodal rail facilities. Project-level improvements are anticipated to be completed by June 30, 2020, and involve demolition of two transit sheds, installation of a small gear-shack with restrooms and outdoor storage space, and on-terminal rail upgrades. Project improvements do not involve any in-water work; all program- and project-level improvements would be landside.	Completed in mid-2020.
25	Portside Pier Restaurant Redevelopment Project	1360 North Harbor Drive	Redevelopment of an existing waterfront restaurant with a new facility, including new pilings, piers, decking, and structure. Development involves demolition of an	Completed.

Project #	Name	Location	Description	Status
			existing restaurant and supporting structure (including 66 piles) and redevelopment with a new, two-story restaurant and supporting structure (on 53 piles). The new facility would be approximately 33,577 square feet and include three distinct dining establishments, a coffee and gelato shop, an expanded dock-and-dine for short-term boat berthing, and a public viewing deck. The project would involve an approximately 8,722-square-foot increase in building floor area and a 4,480-square-foot net increase in water coverage. Restaurant seating would be increased by 464 seats. A new public viewing deck with approximately 108 seats is proposed, and the replacement dock and dine boat dock would allow an increase in boat slips from 2 to 12; however, 4 would be constructed initially.	
26	B Street Pier Cruise Ship Terminal Maintenance Projects	B Street Pier, 1140 North Harbor Drive	Projects on B Street Pier required to address routine maintenance requirements to improve safety, security, integrity, aesthetics, and comfort of this facility. Roof replacement, roll-up and rolling gate doors installation, fire system upgrades, ceiling and hangers cleaning and painting, mobile gangway and platform painting, and installation of photovoltaic system.	Completed.
27	B Street Mooring Dolphin Project	B Street Pier, 1140 North Harbor Drive	Proposal to install moorings off the end of B Street Pier to allow for larger cruise ship docking.	Draft EIR was circulated February 2013. The Final EIR has not yet been released. Project on hold.
28	Integrated Planning Process – Port Master Plan Update (PMPU)	Throughout District Tidelands	Comprehensive Update of the Port Master Plan that is anticipated to include new topical sections, or elements, to provide baywide guidance related to Ecology, Economics, Environmental Justice, Safety & Resiliency, Mobility, and Water & Land Use.	Planning Phase – Program EIR under preparation.

Project #	Name	Location	Description	Status
29	Metro Center Project	West side of National Avenue between Commercial and 16th Streets in San Diego	Consists of 160,600 square feet of regional shopping center uses, 163,300 square feet of retail space, and a 152,000-square-foot lumber store.	Foreseeable project, not entitled.
30	Mitsubishi Cement Corporation	850 B. Water Street, within District's Tenth Avenue Marine Terminal	Involves improvements to Warehouse C at the Tenth Avenue Marine Terminal to import up to 500,000 metric tons of cement per year with an estimated 20,000 annual customer truck trips, for an average of less than 55 trucks per day during operations, with a maximum 192 trucks visiting the site per day.	Consideration of the Final EIR continued.
31	Central Embarcadero Redevelopment[1]	Generally south of the USS Midway Museum and Harbor Drive, west of the Manchester Grand Hyatt and Kettner Boulevard, and north and east of San Diego Bay, San Diego, CA 92101	Includes redevelopment of approximately 40 acres of land and 30 acres of water. Project design is conceptual at this time, but currently includes an observation tower, boat slips, an aquarium, public park space, hotels, retail, office space, an educational center, and parking.	Foreseeable project, not entitled. Pending receipt of formal project application from applicant.
32	HII San Diego Shipyard Inc. Marginal Wharf Repair and As-Needed Pile Replacement Project	1995 Bay Front Street, San Diego, California	Involves two components consisting of demolition, reconstruction, and reconfiguration of piers and wharves. Component 1 is the replacement of three wharves that have severely deteriorated. Component 2 includes the demolition of one pier and the as-needed pile replacement of the remaining five piers. Located within the District's jurisdiction.	MND adopted on April 9, 2019. Construction started in 2019 and anticipated to be complete within 5 years.
33	Bayside Performance Park Enhancement Project	Embarcadero Marina Park South (EMPS)	Involves the replacement and enhancement of structures in EMPS and new facilities including the Bayside Performance Park, a new performance and event venue to hold up to 10,000 attendees, and various other park improvements.	Completed.

[1] While this project is speculative at this time and legally not a reasonably foreseeable project as no firm project description or application has been submitted, it has been included for a worst-case scenario based on knowledge about the project to date.

Project #	Name	Location	Description	Status
34	3121 Boston Avenue Duplex – Project 409094	3121 Boston Avenue, San Diego	Includes a 2,535-square-foot residential duplex on a 7,704-square-foot site that contains an existing 1,892-square-foot residential duplex.	Unknown
35	Workshop for Warriors CDP/SDP – Project 528711	2984, 2970, 2960, 2948, 2940 Main Street, San Diego	Includes a 89,000-square-foot warehouse/ trade school/roof deck and parking, within 1.28 acres.	Unknown
36	Boston Commons – Project 176117	2893 Boston Avenue, San Diego	Involves five affordable residential units for rent on a 0.24-acre site.	Unknown
37	The Barrio Flats NDP/CDP – Project 541700	2257–2275 Logan Avenue, San Diego	Involves the demolition of existing buildings and construction of a new 38,375-square-foot, four-story, mixed-use building that would include 24 residential units, 10 hotel rooms, and 5 retail spaces. The existing building on the 0.41-acre site would remain.	Unknown
38	U-Stor-It – CDP – Project 586276	2209 National Avenue, San Diego	Involves the demolition of an existing commercial building within the 0.807-acre site, for the development of a new three-story 68,878-square-foot self-storage building over two levels, and 90,297 square feet of underground basement.	Unknown
39	Family Counseling Center CDP – Project 490726	2130, 2134, and 2142 National Avenue, San Diego	Involves the demolition of two single dwelling units and one commercial building located on three contiguous lots consisting of 0.34 acre. Includes the construction of a two-story family counseling center facility totaling 8,129 square feet.	Unknown
40	2142 Logan Avenue SDP/CDP – Project 585277	2142 Logan Avenue, San Diego	Involves a mixed-use building to include 11 artist studios, retail sales, offices, and gallery spaces within the 0.10-acre site.	Unknown
41	BAE Systems Waterfront Improvement Project	2205 E. Belt Street, San Diego, CA 92113	Involves construction and operation of 15 distinct project elements designed to improve efficiency and functionality of the existing BAE Systems Ship Repair Yard by replacing aging structures, improving existing infrastructure, increasing space utilization, and increasing	Foreseeable project, not entitled. Final EIR currently in preparation.

Project #	Name	Location	Description	Status
			efficiency of operations. Located within the District's jurisdiction.	
42	Doors & Windows Replacement at National City Rail Car Plaza	Southeast corner of Bay Marina Drive and Marina Way	Replacement of the wooden doors that are rotten or broken, the exterior windows, and the sliding glass door.	Completed in mid-2020.
43	Structural Repairs at NCMT Berth 24-11	National City Marine Terminal (NCMT)	Complete rehabilitation of the berth's wharf, fender system, and mooring hardware.	Construction anticipated in 2024–2025.
44	Structural Repairs at NCMT Berth 24-3	National City Marine Terminal (NCMT)	Complete rehabilitation of the berth's wharf, fender system, and mooring hardware.	Construction anticipated in 2023–2024
45	Roof Replacement at NCMT Warehouse 24-B	National City Marine Terminal (NCMT)	Replacement of the roof and skylights on Warehouse 24-B.	Construction anticipated in 2022.
46	Pavement Improvements at National City	District Tidelands in National City	Repair, replace, or reconstruct areas of asphalt and concrete paving around National City.	Construction anticipated in 2021–2022.
47	Switchboard and Transformer Replacement at National City Marine Terminal	National City Marine Terminal (NCMT)	Replacement of a switchboard and transformer on National City Marine Terminal.	Construction anticipated in 2021.
48	Electrical Upgrades to NCMT Berths 24-10 and 24-11	National City Marine Terminal (NCMT)	Placement of the service entrance switchboard and existing conductors, establish two utility services for the berths, and install one high mast light.	Construction anticipated in 2023.
49	Pavement Maintenance at National City	District Tidelands in National City	Slurry seal areas of asphalt around National City.	Construction anticipated in 2021.
50	Chula Vista Bayfront Projects	West of Bay Boulevard in the Chula Vista Bayfront	Master Plan encompasses 556 acres of land and water area along the Chula Vista Bayfront	RV park and bicycle path under construction, Hotel/Convention Center construction anticipated for 2021-2023, park construction completion in 2023.
51	Wetland Mitigation Bank at Pond 20	Generally north of Palm Avenue, at the southern end of San Diego Bay.	Creation of an approximately 83-acre wetland mitigation bank.	Final EIR under preparation with certification anticipated in early 2021, followed by

Project #	Name	Location	Description	Status
				PMPA processing with Coastal Commission.
52	BNSF National City Yard Improvements	South of Bay Marina Drive, west of Marina Way, east of the National Distribution Center	Rehabilitation of existing rail tracks, and addition of new rail tracks for railcar storage.	Completed in December 2017



Project Number/Name

1. Interim Segment 5 of the Bayshore Bikeway
2. Wayfinding Signage Program
3. Westside Infill Transit Oriented Development (WI-TOD) (also known as Paradise Creek Project)
4. NCMT Projects
5. National City Marine Terminal Tank Farm Paving and Street Closures Project
6. Courtyards at Kimball
7. Park Lofts
8. Raintree Courts
9. The Kimball
10. Brencick
11. Bella Vita
12. Tubao
13. Chen
14. Kamel
15. Palm Plaza
16. Clubb
17. Pier 12 Replacement and Dredging at Naval Base San Diego
18. Pier 8 Replacement Naval Base San Diego
19. Hawaii-Southern California Training and Testing
20. Maintenance Dredging at Naval Base San Diego
21. National City Marine Terminal Roof 24-1 Vehicle Maintenance Building
22. Cold Ironing Phase 2 at B Street and Broadway Pier
23. San Diego Bay and Imperial Beach Oceanfront Fireworks Display Events
24. Tenth Avenue Marine Terminal Redevelopment Plan and Demolition and Initial Rail Component Project
25. Portside Pier Restaurant Redevelopment Project
26. B Street Pier Cruise Ship Terminal Maintenance Projects
27. B Street Mooring Dolphin Project
28. Integrated Planning Process – Port Master Plan Update (PMPU)
29. Metro Center Project
30. Mitsubishi Cement Corporation
31. Central Embarcadero Redevelopment
32. HII San Diego Shipyard Inc. Marginal Wharf Repair and As-Needed Pile Replacement Project
33. Bayside Performance Park Enhancement Project
34. 3121 Boston Avenue Duplex – Project 409094
35. Workshop for Warriors CDP/SDP – Project 528711
36. Boston Commons – Project 176117
37. The Barrio Flats NDP/CDP – Project 541700
38. U-Stir-It – CDP – Project 586276
39. Family Counseling Center CDP – Project 490726
40. 2142 Logan Avenue SDP/CDP – Project 585277
41. BAE Systems Waterfront Improvement Project
42. Doors & Windows Replacement at National City Rail Car Plaza
43. Structural Repairs at NCMT Berth 24-11
44. Structural Repairs at NCMT Berth 24-3
45. Roof Replacement at NCMT Warehouse 24-B
46. Pavement Improvements at National City
47. Switchboard and Transformer Replacement at National City Marine Terminal
48. Electrical Upgrades to NCMT Berths 24-10 and 24-11
49. Pavement Maintenance at National City
50. Chula Vista Bayfront Projects
51. Wetland Mitigation Bank at Pond 20
52. BNSF National City Yard

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Figure 5-1
Cumulative Project Locations
National City Bayfront Projects & Plan Amendments

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5.3 Cumulative Impact Analysis

The discussion below evaluates the potential for the proposed project to contribute to a cumulative adverse impact on the environment. For each resource area, an introductory statement is made regarding what would amount to a significant cumulative impact in that particular resource area.

The analysis that follows considers two separate impacts: the significance of the cumulative effect from past, present, and reasonably foreseeable projects; and, in the event a cumulative effect is identified, the proposed project's incremental contribution to the identified cumulative effect. If it is determined that the proposed project's contribution to the cumulative effect is cumulatively considerable, a cumulatively significant impact is identified, and feasible mitigation measures are identified.

Based on the existing conditions present at the project site and a review of the proposed project, it was determined in the NOP that implementation of the proposed project would not result in any impacts on agriculture and forestry resources, geology or soils, and mineral resources. Consequently, the proposed project would not have a potential to contribute to cumulative impacts related to these resources areas, and they are not discussed in the cumulative impact analysis below. Therefore, the cumulative analysis that follows addresses the incremental contribution of the proposed project to cumulative impacts associated with aesthetics and visual resources; air quality and health risk; biological resources; cultural resources, tribal cultural resources, and paleontological resources; energy; greenhouse gas emissions and climate change; hazards and hazardous materials; hydrology and water quality; land use and planning; noise and vibration; population and employment; public services and recreation; transportation, circulation, and parking; utilities and service systems; and wildfire.

5.3.1 Aesthetics and Visual Quality

A cumulatively considerable impact on aesthetics and visual resources would result if the proposed project would contribute to a significant cumulative impact related to a substantial and adverse change in the overall character of the area or cumulative view blockage that would affect the overall scenic quality of a resource, develop structures that substantially differ from the character of the vicinity, or result in the addition of a substantial cumulative amount of light and/or glare.

5.3.1.1 Geographic Scope

The geographic scope of analysis for cumulative aesthetics and visual resources impacts to which the proposed project may contribute includes the set of viewsheds described in Section 4.1.2.4, *Other Public Views to the Project Site*, and the resultant Key Observation Points from which views into the proposed project are available, whether as part of a single view or a series of related views (e.g., a scenic route), and the general National City bayfront area. As such, the visual impact analysis area generally encompasses public viewing sites along Sweetwater Channel and the Paradise Marsh Wildlife Refuge, view corridors within the National City bayfront area, and visitors to the San Diego Bay National Wildlife Refuge, users of the Bayshore Bikeway, users of Pepper Park, and boaters in the Bay and the marina.

5.3.1.2 Cumulative Effects

Past development projects have changed the land in and around the San Diego bayfront and National City from a natural and undeveloped setting to the urban setting defined by high-rise structures with varying architectural finishes and ornamental landscaping seen today. In addition, past projects, along with present and reasonably foreseeable future projects, have included, and will continue to include, development at or near the National City waterfront that has cumulatively contributed to blocking some inland views. However, these cumulative projects have been, and would continue to be, generally consistent with the visual character, size, scale, and bulk of the past development projects due to existing design and viewshed regulations provided in the District's PMP, National City's General Plan, LCP, Harbor District Specific Area Plan (HDSAP), and Land Use Code (LUC). Compliance with these applicable plans and regulations would also limit future glare and light impacts.

Therefore, although cumulative projects have continued to change the National City bayfront and downtown area to more urbanized settings, and reasonably foreseeable future projects would continue this path of development, changes from past, present, and reasonably foreseeable future projects have been, and will continue to be, designed in accordance with the existing viewshed regulations and design guidelines. Consequently, a cumulatively significant impact from past, present, and reasonably foreseeable future projects is not present.

5.3.1.3 Project Contribution

The proposed project would be constructed in a waterfront location where designated vistas and expansive viewsheds of Sweetwater Channel, the National Wildlife Refuge, and the Bay exist. As discussed under Section 4.1, *Aesthetics and Visual Resources*, the proposed project would obstruct views within a vista area during construction (**Impact-AES-1**), result in inaccessibility of a vista area during construction (**Impact-AES-2**), reduce availability of existing views (**Impact-AES-3**), result in detrimental change to Pepper Park from the relocation of Granger Hall (**Impact AES-4**); result in the development of the GB Capital Component, which would potentially affect visual character with the Pier 32 Marina (**Impact AES-5**); and reduce nighttime views due to additional lighting (**Impact-AES-6**). Mitigation measures **MM-AES-1** through **MM-AES-9** would reduce these impacts. While the project would affect viewsheds from two specific Key Observation Points, most of the areas surrounding the project site would retain the existing expansive views of the Bay. The proposed project would also increase public access space to the waterfront, which would provide new opportunities to experience expansive views of the Bay and Sweetwater Channel from the expansion of Pepper Park, and new hotels, RV park, and modular cabins. Finally, because other past, present, and reasonably foreseeable future projects identified in Table 5-2 have not resulted in a significant aesthetic and visual resources impact and a cumulatively significant impact does not currently exist, the project-level impacts of the proposed project would not result in a cumulatively significant impact, and the proposed project's contribution to aesthetics and visual resources impacts would be less than cumulatively considerable.

5.3.1.4 Level of Significance Prior to Mitigation

The proposed project's contribution to a cumulative aesthetics and visual resources impact would be less than cumulatively considerable.

5.3.1.5 Mitigation Measures

No mitigation is required.

5.3.1.6 Level of Significance After Mitigation

The proposed project's incremental contribution to cumulative aesthetics and visual resources impacts would not be cumulatively considerable and would be less than significant.

5.3.2 Air Quality and Health Risk

Potential cumulative air quality impacts would result when cumulative projects' emissions would combine to degrade air quality conditions below attainment levels for the San Diego Air Basin (SDAB), delay attainment of air quality standards, affect sensitive receptors, or subject surrounding areas to objectionable odors. Neither the District nor the City has adopted quantitative CEQA thresholds to determine whether a project's incremental contribution of emissions would be cumulatively considerable. Therefore, the Air Quality Impact Analysis (AQIA) Trigger Levels outlined in San Diego Air Pollution Control District's (SDAPCD's) Regulation II, Rules 20.2 and 20.3, for new or modified sources, and the County of San Diego's screening level thresholds (SLTs), are used for the analysis of impacts related to emissions for proposed project construction and operations evaluated within the context of past, present, and reasonably foreseeable future projects. The substantial evidence for using the County's and SDAPCD's threshold levels for this project is contained within Section 4.2, *Air Quality and Health Risk*, under Section 4.2.4.2, *Thresholds of Significance*, of this Draft EIR.

5.3.2.1 Geographic Scope

The SDAB, which covers 4,260 square miles of Southern California and is contiguous with San Diego County, represents the cumulative geographic scope for air quality impacts related to consistency with air quality plans and air quality threshold levels because plans and thresholds are established at the air basin–wide level to attain air quality standards that are assigned for the entire air basin, which in this case is the entire county. Cumulative impacts on sensitive receptors and odors are considered at a more localized level due to the more limited area of dispersion, and include the surrounding neighborhoods and areas close to the source of the emission and odor sources, respectively. Localized air quality conditions are influenced by a variety of sources, and guidance from several lead agencies, including the Bay Area Air Quality Management District (2017) and the California Air Resources Board (CARB) (2005), recommend analyzing the effects of emissions from sources within 1,000 feet of proposed new emission sources or proposed new receptor locations.

5.3.2.2 Cumulative Effects

Past projects within the SDAB have involved the emissions of ozone precursors (reactive organic gases [ROG] or volatile organic compounds [VOC] and nitrogen oxides [NO_X]), particulate matter 10 microns or less in diameter (PM10), and particulate matter 2.5 microns or less in diameter (PM2.5), resulting in nonattainment status for 8-hour ozone under National Ambient Air Quality Standards (NAAQS) and nonattainment status for ozone, PM10, and PM2.5 under California Ambient Air Quality Standards (CAAQS). Therefore, the emissions of concern within the SDAB are ozone precursors (ROG and NO_X), PM10, and PM2.5.

The nonattainment status for the entire County is a consequence of past and present projects; the cumulative contribution of reasonably foreseeable future projects, such as those listed in Table 5-2, could result in continued nonattainment. The reasonably foreseeable future projects within 1,000 feet of the proposed project that could contribute cumulative impacts on localized air quality conditions generally include construction related to the following: Interim Segment 5 of the Bayshore Bikeway (Cumulative Project #1), Westside Infill Transit Oriented Development (WI-TOD) (Cumulative Project #3), NCMT Berth 24-10 Structural & Mooring Repair (Cumulative Project #4), National City Marine Terminal Tank Farm Paving and Street Closures Project (Cumulative Project #5), Pier 12 Replacement and Dredging at Naval Base San Diego (Cumulative Project #17), National City Marine Terminal Roof 24-1 Vehicle Maintenance Building (Cumulative Project #21), Doors & Windows Replacement at National City Rail Car Plaza (Cumulative Project #42), Structural Repairs at NCMT Berth 24-11 (Cumulative Project #43), Structural Repairs at NCMT Berth 24-3 (Cumulative Project #44), Roof Replacement at NCMT Warehouse 24-B (Cumulative Project #45), Pavement Improvements at National City (Cumulative Projects #46), Switchboard and Transformer Replacement at National City Marine Terminal (Cumulative Project #47), Electrical Upgrades to NCMT Berths 24-10 and 24-11 (Cumulative Project #48), and Pavement Maintenance at National City (Cumulative Project #49).

Construction related to the nearby Westside Infill Transit Oriented Development (WI-TOD) (Cumulative Project #3), Doors & Windows Replacement at National City Rail Car Plaza (Cumulative Project #42), Structural Repairs at NCMT Berth 24-11 (Cumulative Project #43), Structural Repairs at NCMT Berth 24-3 (Cumulative Project #44), Roof Replacement at NCMT Warehouse 24-B (Cumulative Project #45), Pavement Improvements at National City (Cumulative Projects #46), Switchboard and Transformer Replacement at National City Marine Terminal (Cumulative Project #47), Electrical Upgrades to NCMT Berths 24-10 and 24-11 (Cumulative Project #48), and Pavement Maintenance at National City (Cumulative Project #49) would potentially overlap with the construction of the proposed project, which is scheduled to begin around 2022.

Because past and present projects have resulted in the current nonattainment status for ozone (ROG and NO_X), PM10, and PM2.5, and reasonably foreseeable future projects would continue to contribute to the nonattainment status and potentially affect sensitive receptors, impacts related to the cumulative contribution of nonattainment pollutants (ozone precursors, PM10, and PM2.5) and the exposure of sensitive receptors to substantial pollutant concentrations would be considered cumulatively significant.

5.3.2.3 Project Contribution

As discussed under Threshold 1 of Section 4.2, the proposed project would require an amendment to the District's PMP, and the City's General Plan, LCP, HDSAP, LUC, and Bicycle Master Plan, which would introduce new land use designations that were not previously considered in SANDAG's growth assumptions and subsequently in the Regional Air Quality Strategy (RAQS) and applicable portions of the State Implementation Plan (SIP). The RAQS and SIP are designed to bring the SDAB into attainment with the state and federal ozone standards. As the project uses were not originally anticipated in the growth projections for the RAQS and SIP inventories, operational emissions associated with the proposed project could exceed those estimated for the existing land use plan (i.e., PMP) (**Impact-AQ-1**). Mitigation measure **MM-AQ-1** requires the administrative process to update SANDAG's growth projections, which will ensure the RAQS and SIP adequately consider the redesignated land and water uses at the project site. However, the inconsistency with the current

RAQS and SIP associated with the proposed land use designation changes would be rectified at a later date, and, after mitigation, this impact would be less than significant.

As discussed under Threshold 2 of Section 4.2, and shown in Tables 4.2-9 through 4.2-15, construction of the proposed project would contribute emissions to the cumulative condition. Emissions associated with construction of the Balanced Plan, Phase 1 of the GB Capital Component, and the City Program – Development Component would individually result in emissions that exceed thresholds, and concurrent emissions from all construction would exceed the threshold for VOC, NO_X, carbon monoxide (CO), PM10, and PM2.5 (**Impact-AQ-2**). With **MM-AQ-2** through **MM-AQ-6**, construction-related emissions of VOC, NO_X, CO, PM10, and PM2.5 during peak day concurrent construction would be reduced to below the applicable significance thresholds. Consequently, the proposed project's incremental contribution to cumulative air quality impacts during construction would be less than cumulatively considerable after mitigation is incorporated.

As also discussed under Threshold 2 of Section 4.2, and shown in Table 4.2-16, operational-related emissions would exceed the VOC and PM10 threshold, but remain below all other pollutant thresholds with implementation of the proposed project (**Impact-AQ-3**). With **MM-AQ-7**, which restricts installation of fireplaces and firepits in new construction, operational-related emissions of VOC and PM10 would be reduced to below the applicable significance thresholds (see Table 4.2-23). Accordingly, the proposed project's incremental contribution to cumulative air quality impacts during the operational stage would be less than cumulatively considerable.

As discussed under Threshold 3 of Section 4.2, neither construction nor operation of the proposed project would expose sensitive receptor locations to substantial toxic air contaminant concentrations, including diesel particulate matter and asbestos-containing materials. Similarly, additional traffic created by the proposed project would not result in CO concentrations in excess of the NAAQS or CAAQS. However, project-related emissions during construction could contribute to a significant level of air pollution within the SDAB. As shown in Table 4.2-15, if all construction elements overlap, then construction emissions would exceed relevant thresholds that have been set to attain the NAAQS and CAAQS, the purpose of which is to provide for the protection of public health (**Impact-AQ-4**). Mitigation measures **MM-AQ-1** through **MM-AQ-6** would be implemented to ensure that the project uses are accounted for in the RAQS and SIP update and that regional emissions of VOC, NO_X, PM10, and PM2.5 are reduced. After implementation of these mitigation measures, emissions of VOC, NO_X, CO, PM10, and PM2.5 would not exceed thresholds during construction and impacts would be less than significant. Consequently, the proposed project's incremental contribution to cumulative health effects due to criteria air pollutant emissions during construction would be less than cumulatively considerable after mitigation is incorporated.

As discussed under Threshold 4 of Section 4.2, odors emitted during construction and operation would not result in nuisance odors that would violate SDAPCD Rule 51. Accordingly, while the effects from past, present, and reasonably foreseeable future projects are considered cumulatively significant, the proposed project's incremental contribution to cumulative health risks and odor emissions would be less than cumulatively considerable.

5.3.2.4 Level of Significance Prior to Mitigation

The proposed project's contribution to cumulative impacts related to air quality and health risk would be cumulatively considerable prior to mitigation. Potentially cumulatively considerable impact(s) include the following.

Impact-C-AQ-1: New Land Use Designations Not Accounted for in the Regional Air Quality Strategy (RAQS) and State Implementation Plan (SIP) (All Project Components). The proposed project would amend the District's PMP, City's General Plan, LCP, HDSAP, LUC, and Bicycle Master Plan to account for the proposed land use and jurisdictional changes. As these land use changes were not known at the time the RAQS and SIP were last updated, this would result in a conflict with the applicable state and regional air quality plans because emissions associated with the proposed land uses could be greater than under existing land uses and these new emissions have not been accounted for in the current RAQS and SIP.

Impact-C-AQ-2: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Construction (All Project Components). Project emissions during construction, before mitigation, would exceed the applicable significance thresholds for the Balanced Plan Components (NO_X only), Phase 1 of the GB Capital Component (VOC, NO_X, and CO), Phase 2 of the GB Capital Component (VOC only), and the City Program – Development Component (VOC only), as well as VOC, NO_X, CO, PM10, and PM2.5 collectively for all components. The contribution of project-related emissions is considered significant because the project would exceed thresholds that have been set to attain the NAAQS and CAAQS, the purpose of which is to provide for the protection of public health.

Impact-C-AQ-3: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Operations (GB Capital Component, City Program – Development Component, and Balanced Plan). Project emissions during operation, before mitigation, would exceed the applicable thresholds for VOC and PM10 for all the GB Capital Component, City Program – Development Component, and Balanced Plan. The contribution of project-related emissions is considered significant because the project would exceed thresholds set to attain the NAAQS and CAAQS, the purpose of which is to provide for the protection of public health.

Impact-C-AQ-4: Emissions that Contribute to Health Effects During Proposed Project Construction (All Project Components). Project-related emissions during construction could contribute a significant level of air pollution from VOC, NO_X, CO, PM10, and PM2.5 emissions within the SDAB. Overlapping construction activities could exceed relevant thresholds that that have been set by SDAPCD to attain the NAAQS and CAAQS, the purpose of which is to provide for the protection of public health.

5.3.2.5 Mitigation Measures

For **Impact-C-AQ-1**:

Implement **MM-AQ-1: Update the RAQS and SIP with New Growth Projections (All Project Components)**, as described in Section 4.2.

For **Impact-C-AQ-2**:

Implement **MM-AQ-2: Implement Diesel Emission-Reduction Measures During Construction (All Project Components)**, as described in Section 4.2.

Implement **MM-AQ-3: Implement Fugitive Dust Control during Construction (All Project Components)**, as described in Section 4.2.

Implement **MM-AQ-4: Use Low-VOC Interior and Exterior Coatings During Construction (GB Capital Component and City Program-Development Component)**, as described in Section 4.2.

Implement **MM-AQ-5: Use Modern Harbor Craft During Construction Activities (GB Capital Component and Balanced Plan),** as described in Section 4.2.

Implement **MM-AQ-6: Stagger Overlapping Construction Phases and Components (All Project Components),** as described in Section 4.2.

For **Impact-C-AQ-3**:

Implement **MM-AQ-7: Restrict Installation of Fireplaces and Firepits in New Construction (GB Capital Component, City Program – Development Component, and Balanced Plan)**, as described in Section 4.2.

For **Impact-C-AQ-4**:

Implement **MM-AQ-1** through **MM-AQ-6.**

5.3.2.6 Level of Significance After Mitigation

With implementation of **MM-AQ-1**, the proposed project's inconsistency with the RAQS and SIP would be rectified and would be less than cumulatively considerable. With implementation of **MM-AQ-1** through **MM-AQ-7**, the proposed project's contribution to cumulative air quality impacts during construction and operations would be reduced to a level considered less than cumulatively considerable. Additionally, with implementation of **MM-AQ-1** through **MM-AQ-7**, the proposed project's contribution to regional health effects associated with criteria pollutants would be reduced to a level considered less than cumulatively considerable.

5.3.3 Biological Resources

A significant cumulative impact on biological resources would result if the proposed project would contribute to cumulative impacts related to sensitive habitat or species, sensitive habitat/natural communities, federally protected wetlands, or wildlife movement corridors.

5.3.3.1 Geographic Scope

The geographic area for terrestrial biological resources to which the proposed project may contribute includes the surrounding District Planning Areas and National City. The geographic area for marine biological resources is limited to areas adjacent to, or otherwise linked to, Sweetwater Channel and San Diego Bay. Present and reasonably foreseeable future projects that could contribute to cumulative impacts on terrestrial and aquatic biological resources include projects with grading, paving, landscaping, road, and building construction of undeveloped land or with habitat otherwise present. Marine organisms could be directly affected by construction and/or operation activities in or along the water, including dredging, filling, and wharf demolition/ construction. Untreated runoff from construction or operation activities on land into harbor waters via storm drains or sheet runoff also has the potential to contribute to cumulative impacts.

5.3.3.2 Cumulative Effects

As shown in Table 5-2, the project site and surrounding areas continue to see an increase in urban density and intensity from recent past and present projects, and future projects appear to continue the area's urbanization along San Diego Bay. The vast majority of sensitive terrestrial habitat in the District's Planning Districts and in National City is no longer present. Present and future projects

would be required to be consistent with the District's and U.S. Navy's Integrated Natural Resources Management Plan, which identifies important sensitive species and habitats in San Diego Bay. Moreover, present and reasonably foreseeable future projects also would comply with requirements of the Migratory Bird Treaty Act (MBTA), which contains regulations for the take of any migratory birds, including feathers, nests, or eggs, and would require that present and future projects avoid and/or mitigate potential impacts on any nesting birds.

Thirteen of the cumulative projects listed in Table 5-2 proposed in-water work, such as dredging and fill: NCMT Berth 24-10 Structural & Mooring Repair Project (Cumulative Project #4), Pier 12 Replacement and Dredging at Naval Base San Diego Project (Cumulative Project #17), Pier 8 Replacement Naval Base San Diego Project (Cumulative Project #18), Maintenance Dredging at Naval Base San Diego (Cumulative Project #21), Cold Ironing Phase 2 at B Street and Broadway Pier (Cumulative Project #22), San Diego Bay and Imperial Beach Oceanfront Fireworks Display Events (Cumulative Project #23), Portside Pier Restaurant Redevelopment Project (Cumulative Project #25), B Street Mooring Dolphin Project (Cumulative Project #27), Central Embarcadero Redevelopment Project (Cumulative Project #31), HII San Diego Shipyard Inc. Marginal Wharf Repair and As-Needed Pile Replacement Project (Cumulative Project #32), and BAE Systems Waterfront Improvement Project (Cumulative Project #41).

In addition, marinas, piers, and other structures currently exist throughout San Diego Bay, and recreational, commercial, and industrial boating activities currently occur. These past, present, and future projects have increased and could continue to increase the overwater coverage throughout San Diego Bay, as well as affect the water quality of the Bay, disturb marine mammals during marina pile-driving activities, and reduce eelgrass habitat. The increase in overwater coverage reduces the available open water habitat that is used for foraging by fish-eating avian species. Construction activities, accidental spills, bilge pump discharges, and other activities associated with recreational, commercial, and industrial boating uses can contaminate or reduce the clarity of the water in the Bay, which would inhibit the California least tern's ability to identify prey for foraging. However, all present and future projects would be required to mitigate for these impacts, which could entail the implementation of mitigation measures based on an approved mitigation ratio, ensuring compliance with Clean Water Act (CWA) Section 401, or implementing marina requirements such as bilge pump discharge limitations and spill control plans. Therefore, impacts related to the cumulative contribution of increased overwater coverage and reduced water clarity would not be cumulatively considerable.

5.3.3.3 Project Contribution

The proposed project consists of construction and operation activities in both terrestrial and marine environments. The landside component of the project is adjacent to Paradise Marsh, a portion of the San Diego National Wildlife Refuge that consists of natural sensitive upland and wetland vegetation communities, jurisdictional waters, and wetlands. Construction of landside components of the proposed project would result in negative effects on estuary seablite, Salt Marsh endemic special-status wildlife; impacts on nesting salt marsh special-status avian species; impacts on nesting osprey; potential disturbance or destruction of nests protected by the MBTA and California Fish and Game Code; potential direct impacts on bat roost sites; potential loss of Diegan Coastal Sage Scrub and Southern Coastal Salt Marsh; potential reduction in eelgrass habitat and productivity during construction; and dust, erosion, and runoff (**Impact-BIO-1**, **Impact-BIO-2**, **Impact-BIO-3**, **Impact-BIO-4, Impact-BIO-5, Impact-BIO-6, Impact-BIO-7, Impact-BIO-10, Impact-BIO-11,** and **Impact-BIO-12**). Potential impacts associated with operation of landside components of the proposed

project include negative effects on Salt Marsh endemic special-status wildlife; potential disturbance or destruction of nests protected by the MBTA and California Fish and Game Code; potential trampling of sensitive vegetation and special-status plant species or loss through invasion of exotic plants; potential behavior modification and/or habitat degradation for special-status wildlife; reflective material use that may result in increased bird strikes; potential loss of eelgrass habitat due to overwater coverage or shading impacts during operations; and potential loss of eelgrass habitat due to operation of aquaculture facilities (**Impact-BIO-8**, **Impact-BIO-9**, **Impact BIO-13** and **Impact-BIO-14**). Mitigation required for the proposed project will conduct surveys and monitoring for estuary seablite when construction is proximate and map/flag occurrences for avoidance; ensure coordination with the applicable agencies; require breeding season avoidance for marsh endemic avian species; avoidance of impacts to osprey during nesting season; conduct surveys for maternal bat roost sites and avoid impacts on these sites through seasonal avoidance and/or monitoring prior to the start of construction activities; ensure compliance with the MBTA; provide compensatory mitigation for impacts on Diegan Coastal Sage Scrub; and provide compensatory mitigation for impacts on coastal salt marsh habitat (**MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5,** and **MM-BIO-6**), as well as require the installation of fencing adjacent to the Bayshore Bikeway to ensure that pedestrians and bicyclists do not inadvertently trample sensitive vegetation and special-status plant species, and implementation of bird strike reduction measures on new structures (**MM-BIO-8** and **MM-BIO-9**).

As discussed in Section 4.3, *Biological Resources*, habitats within the project site where the water-side components would be constructed and operated are considered Essential Fish Habitat based on the 1996 amendment to the Magnuson Steven's Fisheries Management Conservation Act. Eelgrass habitat adjacent to the project site is classified as a Habitat of Particular Concern by the National Marine Fisheries Service, for which there are specific, applicable rules and guidelines for mitigation through the California Eelgrass Mitigation Policy. In addition, sensitive species such as the green sea turtle and other marine mammals could be present within the cumulative study area.

As discussed under Thresholds 1 and 2 of Section 4.3, the proposed project would potentially disrupt or injure green sea turtles and marine mammals during in-water pile-driving activities, reduce eelgrass habitat and productivity during construction and operation, and result in a loss of eelgrass habitat from operation of aquaculture facilities (**Impact-BIO-7, Impact-BIO-12, Impact-BIO-13,** and **Impact-BIO-14**). Implementation of **MM-BIO-7, MM-BIO-11**, **MM-BIO-12**, and **MM-BIO-13** would reduce project-level marine impacts to less-than-significant levels. When considered together with the other past, present, and reasonably foreseeable future projects, the proposed project could also result in cumulatively considerable impacts on sensitive species due to the magnitude of combined impacts. However, the proposed project requires the implementation of mitigation measures noted above to reduce project-level impacts to less-than-significant levels. These mitigation measures would ensure compliance with CWA Section 401, agency coordination, and other construction regulations, and require implementation of special wildlife and plant species monitoring programs, a combination of mitigation options for overwater coverage and structure fill impacts, and avoidance or mitigation of eelgrass impacts. Additionally, other present and reasonably foreseeable future projects would also be required to implement similar mitigation measures. Accordingly, the contribution of the proposed project to cumulative biological resources impacts when combined with past, present, and reasonably foreseeable future projects would be less than cumulatively considerable.

5.3.3.4 Level of Significance Prior to Mitigation

The proposed project's contribution to a cumulative biological resources impact would be less than cumulatively considerable.

5.3.3.5 Mitigation Measures

No mitigation is required.

5.3.3.6 Level of Significance After Mitigation

The proposed project's incremental contribution to cumulative biological resource impacts would not be cumulatively considerable and would be less than significant.

5.3.4 Cultural Resources, Tribal Cultural Resources, and Paleontological Resources

A significant cumulative impact on cultural resources would result if the proposed project would contribute to cumulative impacts on significant historical resources, archaeological resources, tribal cultural resources, paleontological resources, and/or inadvertently discovered human remains.

5.3.4.1 Geographic Scope

The geographic scope of analysis for cumulative cultural resource impacts depends on the type of resource, but generally includes National City and southern San Diego, particularly downtown San Diego. For instance, prehistoric and paleontological resources could be located within any natural landforms surrounding the project, including areas within the harbor waters that may be submerged as a result of rising sea levels and/or dredging activities. Historical archaeological resources could be present within the surrounding artificial soils and fill. Impacts on buried archaeological, tribal cultural resources, and paleontological resources generally occur from ground-disturbing activities, such as grading and dredging, while impacts on the historic built environment typically result from modification, relocation, and demolition of existing buildings or structures, substantial visual changes to the setting of a historical resource, and/or noise impacts on a historical resource.

5.3.4.2 Cumulative Effects

Like the project site, portions of the surrounding area contain archaeological resources, tribal cultural resources, geological formations likely to contain paleontological resources, and known built environment historical resources. Past development in National City and adjacent communities has resulted in impacts on cultural resources primarily due to ground-disturbing activities during construction. As redevelopment continues to occur within the community, providing increased density and additional commercial opportunities for residents, existing structures that may be eligible for inclusion in the California Register of Historical Resources or for local designation could be demolished to create developable land, and excavation activities associated with new development could disturb archaeological or paleontological resources. However, discretionary projects are required to undergo CEQA review, and, where there is a potential to affect cultural resources, CEQA (Sections 15064.5 and 15126.4(b)); the Health and Safety Code (Section 7050.5); the City's LUC (Section 18.12.160, Historic Properties); and the City of San Diego's Land

Development Code, Comprehensive Historic Preservation Plan, and Progress Guide and General Plan contain policies and regulations that pertain to cultural resources, and their protection, preservation, and/or avoidance. These would continue to apply to present and reasonably foreseeable future projects within the cumulative study area. Consequently, a cumulatively significant impact from past, present, and reasonably foreseeable future projects is not present.

5.3.4.3 Project Contribution

Two buildings located within the cultural resources study area qualify as historical resources under CEQA. One of these, the National City Santa Fe Depot, would not be subject to any significant impacts from the proposed project. As discussed in Section 4.4, *Cultural Resources*, *Tribal Resources, and Paleontological Resources,* the optional feature of the Pepper Park expansion, which would relocate Granger Hall from its current site to an expanded Pepper Park, has the potential to result in a significant impact on that historical resource (**Impact-CUL-1**). Implementation of the proposed project could also result in a significant impact on archaeological resources (**Impact CUL-2**), including historic-period refuse deposits with potential to yield important information, and tribal cultural resources (**Impact-CUL-3**). Additionally, paleontological resources could be affected by subsurface grading and excavation activities associated with the implementation of the proposed project (**Impact-CUL-4**).

However, implementation of **MM-CUL-1, MM-CUL-2, MM-CUL-3, MM-CUL-4, MM-CUL-5** and **MM-CUL-6** would reduce impacts to less-than-significant levels. Therefore, impacts on historical, archaeological, tribal cultural, or paleontological resources, when considered with other past, present, and reasonably foreseeable future projects, are not anticipated to contribute to a cumulative adverse impact on these resources.

5.3.4.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative cultural resource impacts would not be cumulatively considerable.

5.3.4.5 Mitigation Measures

No mitigation is required.

5.3.4.6 Level of Significance After Mitigation

The proposed project's incremental contribution to cumulative cultural resource impacts would not be cumulatively considerable and would be less than significant.

5.3.5 Energy

A significant cumulative impact on energy would result if the proposed project would contribute to cumulative impacts related to a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

5.3.5.1 Geographic Scope

The geographic scope for cumulative impacts for energy usage includes the San Diego Gas & Electric Company (SDG&E) service area, which is the entire County, and surrounding vicinity.

5.3.5.2 Cumulative Effects

A cumulative energy consumption impact would occur if development associated with projects identified in Table 5-2 or within the geographic scope of the cumulative impact analysis for energy use combined with the proposed project would increase energy consumption throughout the region. The cumulative projects listed in Table 5-2 would result in the redevelopment of urbanized sites that are currently served by SDG&E, and the development of the cumulative projects would not result in an expansion of SDG&E's service area. However, the cumulative projects would result in increases in energy demand compared to existing conditions, especially for those projects on an undeveloped site that would result in new energy demand. As required by the California Public Utilities Commission (CPUC), California utilities, including SDG&E, are required to file long-term energy resources plans with the CPUC. SDG&E's most recent long-term procurement plan was filed in October 2014 and includes plans and strategies to meet the future energy demands of its customers, including a plan addressing the closure of the San Onofre Nuclear Generating Station. SDG&E would continue to import electricity and natural gas to meet regional demand; however, an increase in imported energy to meet demand could result in high energy prices and unreliable supply. SANDAG adopted a Regional Energy Strategy (RES) in 2009 to specifically address regional energy supply. The RES includes proposed Early Actions to promote long-term energy efficiency and availability in the region. If the cumulative projects would not support the implementation of applicable Early Actions from the RES, a cumulative impact could occur. The cumulative projects would be required to comply with the Title 24 energy efficiency standards, which promote energy efficiency and reduce inefficient, wasteful, and unnecessary consumption of energy, as well as any other City-specific requirements. However, Title 24 does not require additional measures to support the other RES Early Actions, including supporting alternative transportation to reduce transportation energy use, reducing GHG emissions from energy use, and limiting water use to reduce indirect energy use for water transport. As such, it is possible that present and reasonably foreseeable future projects would not comply with all programs and policies designed to reduce energy demand. Therefore, impacts from past, present, and reasonably foreseeable future projects would be cumulatively significant.

5.3.5.3 Project Contribution

The proposed project has the potential to result in wasteful, inefficient or unnecessary consumption of energy resources (**Impact-EN-1** and **Impact-EN-2**). However, mitigation that would promote energy efficiency and sustainability measures to reduce energy consumption and promote installation of renewable energy (**MM-GHG-1** through **MM-GHG-3, MM-GHG-5,** and **MM-GHG-7**) would reduce the project's energy demand and fossil fuel use to ensure the project does not result in potential wasteful, inefficient, or unnecessary consumption of energy resources. The proposed project also has the potential to conflict with or obstruct a state or local plan for renewable energy or energy efficiency, as the proposed project would not be consistent with the District Climate Action Plan (CAP) and the City's CAP before mitigation because it does not include measures specific to either CAP (**Impact-EN-3**). Implementation of **MM-GHG-2** and **MM-GHG-3** would ensure compliance with the District's CAP and the City's CAP. Therefore, the proposed project would not

conflict with state and local renewable energy and energy efficiency plans, and impacts would be less than significant. When combined with the cumulative projects listed in Table 5-2, which would also be required to be designed in compliance with the building energy efficiency standards of the Title 24 building codes and to comply with any applicable state plans for renewable energy or energy efficiency to the extent required by law, cumulative impacts would be less than significant, and the proposed project's contribution to cumulative energy impacts would not be cumulatively considerable.

5.3.5.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative energy impacts would not be cumulatively considerable.

5.3.5.5 Mitigation Measures

No mitigation is required.

5.3.5.6 Level of Significance After Mitigation

The proposed project's incremental contribution to cumulative energy impacts would not be cumulatively considerable and would be less than significant.

5.3.6 Greenhouse Gas and Climate Change

There would be the potential for a cumulatively considerable GHG-related impact if the project would be inconsistent with the District's CAP; non-compliant with regulatory programs outlined in the Scoping Plan and adopted by CARB or other California agencies to reduce GHG emissions; inconsistent with the post-2020 reduction targets set forth through California Executive Order (EO) S-03-05, B-55-18, and Senate Bill (SB) 32; or non-compliant with plans, policies, and regulations promulgated to reduce GHG emissions beyond the 2020 timeframe. There would be the potential for a cumulatively considerable climate change impact if the project would expose property and persons to the physical effects of climate change, including, but not limited to, flooding, public health risk, wildfire risk, or other impacts resulting from climate change.

5.3.6.1 Geographic Scope

Climate change is a cumulative issue, and the geographic scope for cumulative GHG emission impacts is global. Because climate change is the result of cumulative global emissions, no single project, when taken in isolation, can cause climate change—a single project's emissions are insufficient to change the radiative balance of the atmosphere. Because climate change is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, cumulative GHG emissions that contribute to global climate change will have a significant cumulative impact on the natural environment as well as on human development and activity. The global increase in GHG emissions that has occurred and will occur in the future is the result of the actions and choices of individuals, businesses, local governments, states, and nations. Furthermore, although climate change impacts will likely vary by geography and intensity, the impacts that will result from cumulative global emissions will be felt worldwide. The GHG and climate change analysis within Section 4.6, *Greenhouse Gas Emissions and Climate Change*, is inherently a cumulative analysis. However, a summary of the discussion is provided below.

5.3.6.2 Cumulative Effects

Past, present, and reasonably foreseeable future projects throughout the region, state, nation, and world, including, but not limited to, those projects listed in Table 5-2, have contributed to, and will continue to contribute to, the cumulative impacts of global climate change. As with the proposed project, all the projects in Table 5-2, along with all other projects within the county, state, and region, would be required to comply with all applicable federal, state, and local policies and regulations regarding GHG emission reductions (e.g., SB 32, Pavley 1, Advanced Clean Cars, Renewables Portfolio Standard, SB 350, SB 100) and adapting to climate change (e.g., sea level rise). However, changes from past, present, and reasonably foreseeable future projects have contributed to, and will continue to contribute to, a cumulatively significant impact in the project vicinity.

5.3.6.3 Project Contribution

As discussed under Threshold 1 of Section 4.6, the proposed project would contribute GHG emissions to the cumulative condition. Equipment and vehicles used during construction (e.g., on-road motor vehicles and heavy equipment) and operations (e.g., vehicle trips, electricity consumption, waste generation, and ferry and recreational boating) would result in a net increase in GHG emissions over existing conditions. As shown in Table 4.6-10 in Section 4.6, combined construction and operation of the proposed project would result in emissions that exceed the numerical efficiency target for both 2025 and 2050. Similarly, the proposed project would not be consistent with both the District's and City's CAPs because it would not implement all of the applicable reduction measures (**Impact-C-GHG-1**). With implementation of **MM-GHG-1** through **MM-GHG-7,** the proposed project would result in emissions below the numerical target; however, because it cannot be stated with certainty that the project would result in emissions that would represent a fair share of the requisite reductions toward the statewide carbon neutrality goal, impacts would remain significant after mitigation.

As discussed under Threshold 2 of Section 4.6, the project would generally comply with local and statewide plans, policies, and regulatory programs outlined in the District CAP, the City's CAP, the adopted Scoping Plan, as well as plans adopted or recommended by CARB or other California agencies for the purpose of reducing the emissions of GHGs (**Impact-C-GHG-2**). With implementation of **MM-GHG-1** through **MM-GHG-7,** the proposed project would comply with local and statewide plans, policies, and regulatory programs designed to reduce GHG emissions. However, because no plans, policies, and regulatory programs have been adopted to achieve the carbon neutrality goal set by EO B-55-18, it cannot be stated with certainty that the project would result in emissions that would represent a fair share of the requisite reductions toward the statewide carbon neutrality goal. Therefore, even after mitigation, the proposed project could result in a cumulatively considerable impact related to GHG emissions because it may impede achievement of near-term state reduction targets.

As discussed under Threshold 3 of Section 4.6, implementation of the proposed project would not exacerbate any existing and/or projected damage to the environment, including existing structures and sensitive resources, due to predicted climate change effects, particularly sea level rise. Accordingly, the project's contribution to cumulative climate change (including sea level rise) impacts would not be cumulatively considerable.

5.3.6.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative impacts related to GHGs would be cumulatively considerable prior to mitigation. The potential cumulatively considerable impacts are:

Impact-C-GHG-1: Inconsistency with the District and City Climate Action Plans' Numerical Targets. Project construction and operations would not meet the numerical efficiency targets in 2025 or 2050. Therefore, prior to the application of any mitigation, the impact related to consistency with relevant plans, policies, and programs would be significant.

Impact-C-GHG-2: Inconsistency with the District's Climate Action Plan and Only Partial Consistency with Statewide Greenhouse Gas Reduction Plans, Policies, and Regulatory Programs. The project would only partially comply with plans, policies, and regulatory programs outlined in applicable District CAP measures and applicable state reduction goals and plans, policies, or regulations (Assembly Bill [AB] 32 Scoping Plan Measures for 2020, SB 32 Scoping Plan Measures for 2030, and other applicable statewide measures) for the purpose of reducing the emissions of GHGs. Therefore, prior to the application of any mitigation, the impact related to consistency with relevant plans, policies, and programs would be significant.

Impact-C-GHG-3: Inconsistency with the City's Climate Action Plan and Only Partial Consistency with Statewide Greenhouse Gas Reduction Plans, Policies, and Regulatory Programs. The project would only partially comply with plans, policies, and regulatory programs outlined in applicable City CAP measures and applicable state reduction goals and plans, policies, or regulations (AB 32 Scoping Plan Measures for 2020, SB 32 Scoping Plan Measures for 2030, and other applicable statewide measures) for the purpose of reducing the emissions of GHGs. Therefore, prior to the application of any mitigation, the impact related to consistency with relevant plans, policies, and programs would be significant.

5.3.6.5 Mitigation Measures

For **Impact-C-GHG-1**:

Implement **MM-GHG-1: Implement Diesel Emission-Reduction Measures During Project Construction and Operation** (**All Project Components**), as described in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

Implement **MM-GHG-2: Comply with District CAP Measures** (**Balanced Plan, GB Capital – Phase 1, Pasha Rail Improvement, Bayshore Bikeway**), as described in Section 4.6.

Implement **MM-GHG-3: Comply with the Applicable City CAP Measures** (**City Program – Development Component and Bayshore Bikeway Component**), as described in Section 4.6.

Implement **MM-GHG-4: Use Modern Harbor Craft for Waterside Construction Activities** (**GB Capital Component and Balanced Plan**), as described in Section 4.6.

Implement **MM-GHG-5: Implement Electric Heating and Zero-Net-Energy Buildings** (**GB Capital Component, Balanced Plan, City Program – Development Component**), as described in Section 4.6.

Implement **MM-GHG-6: Implement a Renewable Energy Project On Site, or Other Verifiable Actions or Activities on Tidelands or Within Another Adjacent Member City, or Purchase**

the Equivalent GHG Offsets from a CARB-Approved Registry or a Locally Approved Equivalent Program (**GB Capital Component and Balanced Plan**), as described in Section 4.6.

Implement **MM-GHG-7**: **Implement a Renewable Energy Project On Site, or Other Verifiable Actions or Activities Within National City or Within an Adjacent Community, or Purchase the Equivalent GHG Offsets from a CARB-Approved Registry or a Locally Approved Equivalent Program (City Program– Development Component),** as described in Section 4.6.

For **Impact-C-GHG-2**:

Implement **MM-GHG-1: Implement Diesel Emission-Reduction Measures During Project Construction** (**All Project Components**), as described in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

Implement **MM-GHG-2: Comply with District CAP Measures** (**Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Bayshore Bikeway Component**), as described in Section 4.6.

Implement **MM-GHG-4: Use Modern Harbor Craft for Waterside Construction Activities** (**GB Capital Component and Balanced Plan**), as described in Section 4.6.

Implement **MM-GHG-5: Implement Electric Heating and Zero-Net-Energy Buildings** (**GB Capital Component, Balanced Plan, City Program– Development Component**), as described in Section 4.6.

Implement **MM-GHG-6: Implement a Renewable Energy Project On Site, or Other Verifiable Actions or Activities on Tidelands or Within Offsite Tidelands, or Within Another Adjacent Member City, or Purchase the Equivalent GHG Offsets from a CARB-Approved Registry or a Locally Approved Equivalent Program** (**GB Capital Component and City Program – Development Component**), as described in Section 4.6.

For **Impact-C-GHG-3**:

Implement **MM-GHG-3: Comply with the Applicable City CAP Measures (City Program – Development Component and Bayshore Bikeway Component),** as described in Section 4.6.

Implement **MM-GHG-7**: **Implement a Renewable Energy Project On Site, or Other Verifiable Actions or Activities Within National City or Within an Adjacent Community, or Purchase the Equivalent GHG Offsets from a California Air Resources Board Approved Registry or a Locally Approved Equivalent Program (City Program – Development Component),** as described in Section 4.6.

5.3.6.6 Level of Significance After Mitigation

After implementation of **MM-GHG-1** through **MM-GHG-7**, the proposed project would result in emissions below the numerical target **(Impact-C-GHG-1)**. However, the proposed project's impact related to consistency with numerical targets would be cumulatively considerable after mitigation because no plans, policies, and regulatory programs have been adopted to achieve the carbon neutrality goal set by EO B-55-18, and it cannot be stated with certainty that the project would result in emissions that would represent a fair share of the requisite reductions towards the statewide carbon neutrality goal.

Mitigation would ensure that the project would comply with plans, policies, and regulatory programs that are outlined in local and statewide plans, policies, and regulations that have been adopted for the purpose of reducing the emissions of GHGs, including the District's CAP **(Impact-C-GHG-2)**. Additionally, mitigation would also ensure that the project would comply with the City's CAP **(Impact-C-GHG-3)**. Therefore, in relation to compliance with plans, policies, and regulatory programs, the project would not be cumulatively considerable.

The project's contribution to cumulative climate change related to consistency with numerical targets impacts would be cumulatively considerable because even after mitigation measures it cannot be stated with certainty that the project would result in emissions that would represent a fair share of the requisite reductions towards the statewide carbon neutrality goal.

5.3.7 Hazards and Hazardous Materials

A significant cumulative impact on hazards and hazardous materials would result if the proposed project were to contribute to impacts related to a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; would involve hazardous emissions or materials within one-quarter mile of an existing or proposed school; would result in impacts related to the project being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment; or would interfere with an adopted emergency response or evacuation plan.

Because the proposed project would have no impacts related to the following issues, it would also have no cumulative impacts related to these issues: transport, use, or dispose of hazardous materials; be located within an airport land use plan or within two miles of a public airport or public use airport; or expose people or structures to wildland fires.

5.3.7.1 Geographic Scope

The hazards and hazardous materials geographic scope consists of the areas that could be affected by proposed project activities as well as areas affected by other projects whose activities could directly or indirectly affect the proposed activities on the project site. In general, projects occurring within 0.12 mile of the project site (and in the case of active release sites, within 0.25 mile) were considered in this analysis due to the localized nature of potential impacts associated with the release of hazardous materials into the environment.

5.3.7.2 Cumulative Effects

As discussed in Section 4.7, *Hazards and Hazardous Materials*, record searches using Environmental Data Resources were conducted. The results indicate that there are multiple sites within 0.12 mile (and in some cases within 0.25 mile) of the project site that involve the handling of hazardous materials.

Landside

There were three sites wherein unauthorized releases were recorded within 0.12 mile of the project site, and several sites within 0.25 mile. Simply the presence of sites (with a history of releases) within the cumulative study area is not sufficient to determine if a significant cumulative impact is present. Evidence must suggest that the contamination has resulted in a cumulative condition to

which other projects are contributing. This was not evident during the database research because existing contamination was caused by site-specific incidents at individual sites and not exacerbated by multiple sites. Therefore, impacts from past cumulative projects are not cumulatively significant.

Present and reasonably foreseeable future projects within the cumulative study area could disrupt or result in the exposure of hazardous materials that are typically used during construction activities; however, the risk for exposure to hazardous materials would be analyzed during project development. For projects having the potential to disrupt or result in the exposure of hazardous materials, mitigation measures would be required during construction to reduce potential impacts to a level below significance. These projects, like the proposed project, are required to comply with all federal, state, and local policies regarding hazards and hazardous materials, as the ones described in Section 4.7.3, *Applicable Laws and Regulations*, which would reduce potential releases of hazardous materials into the environment. Because all cumulative projects listed in Table 5-2 with potential to expose hazardous materials during construction in the vicinity of the project site would be subject to federal, state, and local hazardous materials laws, including those described in Section 4.7.3, cumulative effects related to hazardous materials from past, present, and reasonably foreseeable future projects would be less than cumulatively significant.

Waterside

San Diego Bay has a history of water and sediment contamination. Several Cleanup and Abatement Orders and Investigative Orders have been issued by the Regional Water Quality Control Board (RWQCB) for the characterization and remediation of contaminated sediment throughout the Bay. Several of the cumulative projects listed in Table 5-2 are located along the Bay and involve in-water work that could have the potential to disturb existing contaminated sediment and release it to the environment. All past, present, and reasonably foreseeable cumulative projects would be required to comply with applicable federal, state, and local regulations; be required to obtain the requisite permits for in-water construction; and be required to comply with the stipulations of the applicable Cleanup and Abatement Orders issued by the RWQCB. However, because some types of cumulative projects, such as pier replacement, require extensive in-water work, it is possible cumulative projects would contribute to the exacerbation of hazardous conditions in the Bay related to sediment contamination. Therefore, past, present, and reasonably foreseeable future projects within the cumulative study area could result in a cumulatively considerable impact related to the release of hazardous materials to the environment.

5.3.7.3 Project Contribution

Implementation of the proposed project would potentially create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (**Impact-HAZ-1** and **Impact-HAZ-2**). Project-level mitigation measures (**MM-HAZ-1** through **MM-HAZ-3** and **MM-HAZ-4** through **MM-HAZ-6**) would reduce **Impact-HAZ-1** and **Impact-HAZ- 2** to less-than-significant levels because safeguards would be implemented during ground-disturbing construction activities to ensure upset and accidental conditions do not occur, and detrimental effects in the event of unanticipated upset conditions would be minimized. Implementation of **MM-HAZ-7** would reduce **Impact-HAZ-3** to less-than-significant levels because coordination with the Department of Environmental Health would ensure the cases would be reviewed, and remediated if necessary, to the appropriate remediation standard for future hotel use. In addition, implementation of the proposed project could impair implementation of or physically interfere with an adopted emergency response plan or

emergency evacuation plan (**Impact-HAZ-4** through **Impact-HAZ-7).** However, implementation of **MM-TRA-2,** and **MM-HAZ-8** through **MM-HAZ-11** would ensure emergency vehicle access would be maintained to the proposed project site and nearby properties, which would reduce impacts to less than significant.

Implementation of the proposed project would not result in hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. As such, the project's contribution to the less than cumulatively significant effects of past, present, and reasonably foreseeable future projects would not be cumulatively considerable.

5.3.7.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative hazard and hazardous materials impacts would not be cumulatively considerable.

5.3.7.5 Mitigation Measures

No mitigation is required.

5.3.7.6 Level of Significance After Mitigation

The proposed project's incremental contribution to cumulative hazard and hazardous materials impacts would not be cumulatively considerable and would be less than significant.

5.3.8 Hydrology and Water Quality

A significant cumulative impact on hydrology and water quality would result if the proposed project were to contribute to impacts related to water quality standard violations, waste discharge requirements, or degradation of surface or groundwater quality; alterations to drainage patterns leading to erosion or flooding; increased runoff in excess of available capacity; substantial additional sources of polluted runoff; in flood hazard or tsunami zones, risk release of pollutants due to project inundation; or conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. These are evaluated within the context of past, present, and reasonably foreseeable future projects. The proposed project is not anticipated to result in impacts related to depletion of groundwater supplies or interference with recharge; as such, cumulative impacts related to these issues are not evaluated.

5.3.8.1 Geographic Scope

The geographic scope of analysis for cumulative impacts on hydrology and water quality includes the San Diego Watershed Management Area (WMA), which includes all of the projects listed in Table 5-2.

5.3.8.2 Cumulative Effects

Past projects within the San Diego WMA have contributed pollutants to San Diego Bay, as evidenced by the CWA Section 303(d) List of Water Quality Limited Segments Requiring Total Maximum Daily Loads. Current and future projects would be subject to state and local regulatory standards that must be achieved during construction and operation to reduce or avoid polluted runoff to the

maximum extent practicable. These current and reasonably foreseeable future projects could also contribute pollutants such as oil and grease, suspended solids, metals, gasoline, pesticides, and pathogens into the stormwater conveyance system and receiving waters.

Many of the nearby projects listed in Table 5-2 would involve at least 1 acre of grading. During construction of these projects, they would be required to comply with the National Pollution Discharge Elimination System Construction General Permit, which requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) by a Qualified SWPPP Developer and implementation of BMPs by a Qualified SWPPP Practitioner to ensure runoff from individual projects meet current water quality standards. For projects under 1 acre, the Municipal Permit (via the Jurisdictional Runoff Management Plan [JRMP]) requires minimum Best Management Practices (BMPs) at all construction and grading projects. The minimum BMPs are required to ensure a reduction of potential pollutants from the project site to the maximum extent practicable and to effectively prohibit non-stormwater discharges from construction sites to the Municipal Separate Storm Sewer System.

Present and reasonably foreseeable future projects would be subject to regulations that require compliance with water quality standards, including state and local water quality regulations and the District's JRMP and local *BMP Design Manual* (for projects within the District's jurisdiction), the City's JRMP, and the City of San Diego's Storm Water Management and Discharge Control Ordinance, which identifies water quality BMP requirements (for projects within the City's jurisdiction). For projects in San Diego, the Storm Water Management and Discharge Control Ordinance requires implementation of measures to reduce the risk of non-stormwater discharges and pollutant discharges through the use of BMPs. However, because San Diego Bay is currently an impaired water body and has been for some time, the cumulative effect of past, present, and reasonably foreseeable future projects would have the potential to result in a cumulatively significant water quality impact.

5.3.8.3 Project Contribution

A cumulatively significant impact on hydrology and water quality presently exists because of San Diego Bay's status as an impaired water body and the potential for present and future projects to further degrade water quality with the addition of similar pollutants as those already impairing San Diego Bay.

The proposed project would involve land-disturbing activities that would expose soils and, as such, would require compliance with the Construction General Permit. Compliance with the Construction General Permit would require development and implementation of a SWPPP by a Qualified SWPPP Developer, which would list BMPs that would be implemented by a Qualified SWPPP Practitioner to protect stormwater runoff and include a monitoring plan for measuring BMP effectiveness. At a minimum, BMPs would include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with stormwater. The SWPPP would specify properly designed, centralized storage areas that keep these materials out of the rain. The primary BMPs selected would focus on erosion control (i.e., keeping sediment in place) followed by sediment control (i.e., keeping sediment on the site). In addition to the SWPPP, implementation of construction BMPs identified in the District's JRMP and *BMP Design Manual*, as well as the City's JRMP and *Storm Water BMP Design Manual* would be required, which would reduce impacts on water quality during construction.

Additionally, implementation of the in-water GB Capital project components would result in short-term water quality impacts associated with the construction of new piles, docks, and aquaculture facilities. Disruption to sediments could adversely affect water quality by temporarily resuspending sediments, thereby increasing turbidity. Also, chemicals that are present in the sediments could be released to the water column during resuspension, which could temporarily degrade water quality. Further, suspended sediments in the water column can lower levels of dissolved oxygen, increase salinity, increase concentrations of suspended solids, and possibly release chemicals present in sediments into the water. The proposed project would be required to obtain a Section 10 permit from the U.S. Army Corps of Engineers (USACE) for the placement of piles and docks in navigable waters. Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the USACE for the construction of any structure in or over any navigable water of the United States. A Section 10 permit would be required to be obtained prior to initiating construction activities for the in-water components. The USACE would issue a public notice to interested parties to solicit comments on the project and, after evaluating the comments and information received, would make a decision to issue or deny a permit based on compliance with its regulations and other laws. In addition, the proposed project would be required to obtain a corresponding water quality certification (Section 401 permit) from the RWQCB for the federal permits from the USACE. A Section 401 permit is required by the USACE for Section 10 permit issuance. Once the RWQCB deems a 401 application is complete, a public notice and 21-day comment period follow. Following the public comment period, additional information may be required or a public hearing with the RWQCB would be scheduled. The RWQCB-issued water quality certification would specify methods for ensuring the protection of water quality during construction activities in Sweetwater Channel, including water quality monitoring requirements in order to meet the Basin Plan water quality objectives; also, beneficial uses may require mitigation for impacts on waters of the United States. In addition, the Section 401 permit would list specific conditions for the use of in-water construction BMPs to minimize the discharge of construction materials from construction activities, control of floating debris, and provision of spill containment and cleanup equipment to control potential accidental spills in order to meet the Basin Plan water quality objectives and beneficial uses. Adherence to regulatory permit requirements associated with the Rivers and Harbors Act Section 10 and CWA Section 401 would reduce impacts on water quality during construction to less-than-significant levels, and no mitigation measures would be required.

The proposed project would result in an increase of impervious surfaces compared to existing conditions; however, any increases in peak flows for storm events would be managed through the use of low-impact design (LID) features and stormwater pollutant control BMPs that are designed to retain (i.e., intercept, store, infiltrate, evaporate, and evapotranspire) stormwater runoff generated on the project site in compliance with the local jurisdiction's BMP Manual. A drainage report would be required to be prepared prior to construction. Compliance with regulations would be required to prevent the proposed project from allowing the discharge of water levels that exceed the capacity of existing pipelines. In addition, the proposed project would discharge directly to Sweetwater Channel and San Diego Bay, and would not result in erosion, siltation, or flooding by nature of the receiving Bay waters (i.e., not a typical channel with bed and banks subject to erosion or overtopping). The project does not propose changing the drainage pattern; however, the way in which water is filtered would differ from existing conditions. Through the addition of LID features and compliance with the local jurisdiction's BMP Manual, the proposed project would improve current drainage patterns. Although the proposed project would result in an increase in impervious surfaces, waterflow would still drain directly into San Diego Bay and Sweetwater Channel. Therefore, the proposed project

does not include changes to the existing storm drain system that would result in substantial erosion or siltation or flooding on- or off site. Impacts would be less than significant.

Anticipated pollutants of concern expected from operation of the proposed project would be typical of commercial uses, restaurants, roads, parks, parking areas, bike paths, railroad right-of-way, and landscaping during operations. Such pollutants include trash and debris from site visitors and around garbage bins, oil and grease from equipment and vehicles, oxygen-demanding substances, bacteria and viruses from food disposal, heavy metals from equipment and structures, and organic compounds. Other potential pollutants of concern include pesticides and nutrients from landscape. The proposed project would continue to discharge directly into Sweetwater Channel and the Bay, similar to existing conditions.

The proposed project is considered a Priority Development Project (PDP) in accordance with the District's and City's JRMPs. As a PDP, the proposed project would be required to implement post-construction BMPs through the preparation and implementation of a project-specific Storm Water Quality Management Plan (SWQMP). The proposed project would implement site design, source control, and pollutant control BMPs consistent with the District's JRMP and *BMP Design Manual*, as well as the City's JRMP and *Storm Water BMP Design Manual*. The JRMPs require that the PDP applicants proposing to meet the performance standards on site implement all feasible onsite retention BMPs needed to meet the stormwater pollutant control BMP requirements prior to installing onsite biofiltration BMPs, and then install onsite flow-through treatment control BMPs. Retention BMPs are structural measures that provide retention (i.e., intercept, store, infiltrate, evaporate, and evapotranspire) of stormwater as part of the pollutant control strategy; examples that may be considered on site include infiltration BMPs and cisterns, bioretention BMPs, and biofiltration with partial retention BMPs. Flow-through treatment control BMPs are structural measures that provide flow-through treatment as part of the pollutant control strategy; examples include vegetated swales and media filters. The groundwater depth is less than 10 feet below existing ground elevations, and, as such, the project site is in a no-infiltration condition given the adjacency to Sweetwater Channel.

Site design and source control BMPs are the minimum management practices, control techniques, and design and engineering methods to be included in the planning design to reduce the discharge of pollutants from the development, and are intended to avoid or minimize the water quality impacts by managing site hydrology, providing treatment features integrated within the site, and reducing or preventing the introduction of pollutants from specific sources. A SWQMP would be required and prepared during final design and as part of project approval. Implementation of site design, source control, and pollutant control BMPs would not only result in a reduction in pollutants discharged from the project site but also in stormwater runoff generated by the project site. As a result, the proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Development of the proposed project would include implementation of pollutant control BMPs in compliance with the District's JRMP and *BMP Design Manual,* as well as the City's JRMP and *Storm Water BMP Design Manua*l, that would remove pollutants to the maximum extent practicable prior to discharge into Sweetwater Channel. Therefore, the proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. As such, impacts would be less than significant, and no mitigation measures are required. In addition, the project's conformance

with the District's *BMP Design Manual* and the City's *Storm Water BMP Design Manual* would ensure the proposed project would not have the potential for cumulatively considerable impacts to potentially conflict with or obstruct implementation of applicable plans.

Although the project site is within a designated high risk zone for a tsunami, the likelihood of such an event occurring during the construction period is considered low. If such an event were to occur during construction or operation, the project site's distance from the open ocean and the buffering provided by Coronado would mean flood flows would be assimilated within San Diego Bay. Consequently, while it is reasonably foreseeable that inundation from a tsunami could occur, the proposed project would not exacerbate the risk of release of pollutants compared to existing conditions; any associated impacts would be less than significant.

The District's JRMP and the City's JRMP are the local water quality management plans that apply to the proposed project. The proposed project would be covered under the Construction General Permit and the District's or City's JRMP, which would require the project implement site design measures and BMPs to reduce or prevent runoff pollution that would be consistent with the applicable JRMPs. Therefore, the proposed project would not be in conflict with or obstruct implementation of the applicable water quality control plan for the project area. In addition, the project's conformance with the District's *BMP Design Manual* and City's *Storm Water BMP Design Manual* would ensure the proposed project would not have the potential for cumulatively considerable impacts to potentially conflict with or obstruct implementation of applicable plans. Given the proposed project would not result in impacts on groundwater, the proposed project is not anticipated to conflict with a sustainable groundwater management plan.

Therefore, the proposed project's incremental contribution to significant cumulative water quality impacts from past, present, and reasonably foreseeable future projects would be less than cumulatively considerable.

5.3.8.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative hydrology and water quality impacts would not be cumulatively considerable.

5.3.8.5 Mitigation Measures

No mitigation is required.

5.3.8.6 Level of Significance After Mitigation

The proposed project's incremental contribution to cumulative hydrology and water quality impacts would not be cumulatively considerable and therefore would be less than significant.

5.3.9 Land Use and Planning

Cumulatively considerable impacts from past, present, and future projects are determined by whether there are cumulative inconsistencies with the applicable land use plans that have resulted or will result in significant physical impacts, or by the past, present, or future physical division of established communities.

5.3.9.1 Geographic Scope

The geographic scope of analysis for cumulative land use and planning impacts to which the proposed project may contribute includes the jurisdictions of the District, the City, and the projects identified in Table 5-2.

5.3.9.2 Cumulative Effects

Past projects within National City have been subject to local regulations governing land use decisions and have resulted in the development of a highly urbanized metropolitan city center. Throughout the development of past projects, the area has generally maintained its street grid system and has not resulted in the division of a neighborhood. The District's PMP, as amended, has been certified by the California Coastal Commission (CCC), and all past development projects within District boundaries have been approved pursuant to the adopted PMP, ensuring review and conformity with the Coastal Act. Since adoption and certification of the current PMP, there have been projects where PMP amendments were required to implement various development projects. However, these amendments have undergone environmental review and District approval, and have been certified by the CCC. As a result, impacts from past projects have not been cumulatively significant.

In addition, construction and operation associated with recently approved and developed projects have demonstrated consistency with the District's PMP, and the City's General Plan, LCP, HDSAP, LUC, and Bicycle Master Plan; and are the documents used to calculate projections in the SIP and RAQS; and the same can be expected of reasonably foreseeable future projects. As such, because the street system in National City is established and none of the current or reasonably foreseeable future projects propose changes to the circulation system, and current cumulative projects and reasonably foreseeable future projects in the project area would be required to demonstrate consistency with the District's PMP, and the City's General Plan, LCP, and the HDSAP, it is not expected that these projects would physically divide the established downtown neighborhood.

Within the District's jurisdiction, public access and use of the waterfront continues to be a priority. Proposed projects are held to strict standards in terms of public access and consistency with the PMP. Recent development along the waterfront of San Diego Bay, such as Interim Segment 5 of the Bayshore Bikeway (Cumulative Project #1), and the Wayfinding Signage Program (Cumulative Project #2), is intended to increase visual and physical access to the Bay. Other projects along the Bay, such as Portside Pier Restaurant Redevelopment Project (Cumulative Project #25), Central Embarcadero Redevelopment (Cumulative Project #31), or the Bayside Performance Park Enhancement Project (Cumulative Project #33), have been, or will be, required to demonstrate consistency with public access requirements of the PMP. Where amendments to the PMP occur, it must be demonstrated that the amendment would result in an additional public benefit, often providing improved access to the waterfront.

Consequently, there are no current or reasonably foreseeable future development projects within the project site's cumulative geographic scope that would physically divide an established community or result in a land use inconsistency; therefore, past, present, and reasonably foreseeable future projects would be less than cumulatively significant.

5.3.9.3 Project Contribution

As discussed in Section 4.9, *Land Use and Planning*, the proposed project would require amendments to the District's PMP as well as the City's LCP, General Plan, HDSAP, and LUC that would include changes to jurisdictional boundaries; changes to subarea boundaries; and changes to land use, specific plan, and zone designations (City Program – Plan Amendments). As discussed in Section 4.9, implementation of the proposed project would conflict with the CCC Sea Level Rise Policy Guidance, which requires consideration of strategies to mitigate the impact of sea level rise on the proposed project (**Impact-LU-1**, **Impact-LU-2**, and **Impact-LU-3**). **Impact-LU-1** would be reduced to less than significant after implementation of **MM-LU-1** because the Route 1 option of the Bayshore Bikeway Component would be designed and constructed to be located outside the areas of inundation near the marsh part of that bikeway alignment. Therefore, these impacts would be less than significant. **Impact-LU-2** would be reduced to less than significant after implementation of **MM-LU-2** and **MM-LU-3** because those project components would be designed and constructed to accommodate projected inundation. **Impact-LU-3** would be reduced to a level less than significant after implementation of **MM-LU-4** and **MM-LU-5** because ongoing monitoring of project component sites would be conducted to observe sea level rise conditions and, if necessary, site-specific assessments would be prepared to identify appropriate adaptation strategies to ensure that areas projected to be inundated are resilient. Therefore, impacts would be less than significant.

As noted above, a cumulatively significant land use impact does not exist, and the proposed project would not result in an impact such that a cumulatively significant impact would be created. The proposed project's contribution to inconsistencies with land use and planning policies would be less than cumulatively considerable.

5.3.9.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative land use and planning impacts would not be cumulatively considerable.

5.3.9.5 Mitigation Measures

No mitigation is required.

5.3.9.6 Level of Significance After Mitigation

The proposed project's incremental contribution to cumulative land use and planning impacts would not be cumulatively considerable and therefore would be less than significant.

5.3.10 Noise and Vibration

A significant cumulative impact on noise and vibration would result if the proposed project were to contribute to impacts related to exceedances of noise standards, groundborne vibration, or ambient noise levels when evaluated within the context of past, present, and reasonably foreseeable future projects. At the project level, there were determined to be no impacts related to air traffic noise; as such, cumulative impacts related to air traffic noise are not evaluated.

5.3.10.1 Geographic Scope

The geographic scope of analysis for cumulative noise impacts related to onsite activities (construction and operations) is the area within 1,500 feet of the project site. This relatively large distance has been selected for the analysis because the project involves pile driving, which has the potential to generate noise impacts over a large area. The geographic scope of analysis for cumulative noise impacts related to traffic is defined by the roadway segments analyzed previously in the assessment of direct noise impacts.

5.3.10.2 Cumulative Effects

Construction

Only a small number of the related projects listed in Table 5-2 are within 1,500 feet of the proposed project site. The distance to the other projects, along with the shielding provided by intervening buildings, would substantially reduce construction noise from these projects so that they would not generate any cumulative impacts in the immediate vicinity of the proposed project site. Several of the nearby related projects (i.e., within 1,500 feet) are already constructed, and, as such, their construction activity could not overlap with that of the proposed project.

The remaining nine related projects within the geographical scope for analysis are the Westside Infill Transit Oriented Development (WI-TOD) (Cumulative Project #3), Doors & Windows Replacement at National City Rail Car Plaza (Cumulative Project #42), Structural Repairs at NCMT Berth 24-11 (Cumulative Project #43), Structural Repairs at NCMT Berth 24-3 (Cumulative Project #44), Roof Replacement at NCMT Warehouse 24-B (Cumulative Project #45), Pavement Improvements at National City (Cumulative Project #46), Switchboard and Transformer Replacement at National City Marine Terminal (Cumulative Project #47), Electrical Upgrades to NCMT Berths 24-10 and 24-11 (Cumulative Project #48), and Pavement Maintenance at National City (Cumulative Project #49).

Related project contributions to any cumulative construction noise levels would generally be small at sensitive receptors affected by the proposed project because:

- Construction of Cumulative Project #3 is mostly complete but could possibly overlap with proposed project construction; however, it is separated from the closest project site by the intervening I-5 freeway and a distance of nearly 1,000 feet.
- Cumulative Project #42 involves window and door replacements, which typical do not require heavy construction equipment and would generate low average noise levels.
- Cumulative Projects #43 and # 44 would both require pile driving, which can be a substantial noise source; however, the activity would occur at berths located more than 2,000 feet from the closest noise-sensitive receptors.
- Cumulative Project #45 would also be more than 2,000 feet from the closest noise-sensitive receptors.
- Cumulative Projects #46 and #49 both involve electrical improvements within the National City Marine Terminal; these projects are not expected to require extensive heavy equipment and are located more than 2,000 feet from the closest noise-sensitive receptors.

Cumulative Projects #46 and #49 both involve repairs to paving in the project vicinity; if this paving occurs near sensitive receptors affected by construction noise from the proposed project it would likely be clearly audible at those receptors and could potentially exceed local noise ordinance standards.

Operation

Traffic (Offsite Impacts)

Cumulative traffic noise levels were estimated along each of the 20 roadway segments analyzed in the Traffic Impact Analysis (TIA) for the proposed project. Both Near-Term (2030) and Future Year (2050) conditions were analyzed. The traffic noise analysis is provided in Appendix J, and the results are summarized in Tables 5-3 through 5-6. For each project scenario, Table 5-3 shows the estimated traffic noise levels for existing and 2030 conditions, and Table 5-4 shows the resulting noise increase relative to both existing and 2030 baseline conditions. Table 5-5 shows the estimated traffic noise levels for existing and 2050 conditions, and Table 5-6 shows the resulting noise increase relative to both existing and 2050 baseline conditions. Noise-sensitive land uses adjacent to the analyzed roadways consist of single-family homes, apartments, and a hotel. Analysis was conducted for these roadways using a typical receiver setback of 50 feet from the centerline of the roadway.

Referring to Table 5-3, noise levels range from 50 to 72 Community Noise Equivalent Level decibels (dB CNEL) under 2030 baseline conditions and from 49 to 72 dB CNEL under 2030 cumulative (2030 plus project) scenarios at 50 feet from the centerline of the studied roadways. 2030 cumulative traffic noise levels would exceed the applicable exterior threshold of 60 dB CNEL at single-family homes adjacent to Cleveland Avenue between West 18th Street and West 23rd Street. However, as shown in Table 5-4, overall traffic noise levels at these locations would not increase by 3 dB or more relative to existing conditions, so there would be no cumulative impact. The 2030 cumulative traffic noise levels would also exceed the applicable exterior threshold of 65 dB CNEL at the Best Western Hotel adjacent to Bay Marina Drive between Marina Way and Cleveland Avenue. At this location, project-generated traffic would increase noise levels by more than 3 dB, relative to existing conditions, under three scenarios (Near Term + Development Projects, Near Term + Total Bayfront, and Near Term + Total Bayfront with Partial Closure (Narrowing) of Bay Marina Drive), which would be a cumulatively significant noise impact.

Referring to Table 5-5, noise levels range from 50 to 72 dB CNEL under 2050 baseline conditions and from 49 to 72 dB CNEL under 2050 cumulative (2050 plus project) scenarios at 50 feet from the centerline of the studied roadways. The 2050 cumulative traffic noise levels would exceed the applicable exterior threshold of 60 dB CNEL at single-family homes adjacent to Cleveland Avenue between West 18th Street and West 23rd Street. However, as shown in Table 5-6, overall traffic noise levels at these locations would not increase by 3 dB or more relative to existing conditions, so there would be no cumulative impact. The 2050 cumulative traffic noise levels would also exceed the applicable exterior threshold of 65 dB CNEL at the Best Western Hotel adjacent to Bay Marina Drive between Marina Way and Cleveland Avenue. At this location, project-generated traffic would increase noise levels by more than 3 dB, relative to existing conditions, under three scenarios (Near Term + Development Projects, Near Term + Total Bayfront, and Near Term + Total Bayfront with Partial Closure (Narrowing) of Bay Marina Drive), which would be a cumulatively significant noise impact.

Traffic (Onsite Impacts)

Only a small subset of the analyzed roadway segments would run adjacent to the proposed new noise-sensitive receptors:

- West 23rd Street(adjacent to the north side of the City Program – Development Component).
- Cleveland Avenue between West 23rd Street and Bay Marina Drive (bisecting the City Program – Development Component).
- Bay Marina Drive between Marina Way and the I-5 southbound ramps (adjacent to the south side of the City Program – Development Component).
- Marina Way between Bay Marina Drive and 32nd Street and 32nd Street between Tidelands Avenue and Marina Way (both adjacent to the northwest side of the GB Capital Component).

Table 5-7 summarizes the predicted noise levels adjacent to these roadway segments under all analyzed development scenarios for both the near-term (2030) and horizon year (2050). All of the proposed noise-sensitive developments adjacent to the roadway segments are visitor accommodations (hotels or RV sites), which would have a noise exposure threshold of 65 dB CNEL per the City's General Plan. Noise levels that exceed the threshold are indicated in the table with an asterisk. As illustrated in the table, there are multiple exceedances of the threshold at the proposed City Program – Development Component under both 2030 and 2050 conditions. Assuming a hotel is constructed at this location as currently planned, it could be exposed to noise levels in excess of 65 dB CNEL from both Cleveland Avenue and Bay Marina Drive. This would be a cumulatively significant noise impact.

Rail Operations

The analysis of rail noise provided in Section 4.10, *Noise and Vibration*, was partially based on prior analyses and environmental documents, including the NCMT Tank Farm Paving and Street Closures Project, which accounted for anticipated future growth associated with expansion of marine terminal throughput. Therefore, the cumulative rail noise impacts are the same as those determined in Section 4.10, which were found to be less than significant for offsite receptors but significant at the proposed visitor accommodations at the GB Capital Component of the proposed project.

Onsite Operations

Related projects within the geographic scope of cumulative analysis are mostly low operational noise generators (e.g., residences, office, retail, and a bike path) or improvements/repairs to existing facilities such as marine terminal berths and buildings. Noise levels from these projects would be similar in character and level to the existing noise conditions and would not be expected to cause significant changes in the existing environment. The possible exception would be the NCMT Tank Farm Paving and Street Closures Project, which proposes to expand vehicle storage capacity at the NCMT and surrounding marine industrial areas to allow for greater throughput. The EIR for the NCMT Tank Farm Paving and Street Closures Project indicates that the impact of onsite operational noise sources would be less than significant for all noise sources, including combined operational activities (vessel calls and onsite vehicle storage activity). Furthermore, due to the logarithmic nature of the decibel scale used to measure noise levels, the periodic noise generated by operations at NCMT is anticipated to represent a modest contribution to overall noise levels when compared to the direct impacts of the proposed project due to noise sources such as the dry boat storage facility

or organized events at Pepper Park. Therefore, there would be no significant cumulative impacts associated with onsite operations.

Table 5-3. Estimated Cumulative (2030) Traffic Noise Levels for Offsite Assessment

	Estimated Unmitigated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)						
Roadway/Segment	Existing	2030 Base	2030 + DP	2030 + DPW	2030 + TB	2030 + TB + Cl of BM	2030 + TB + P-Cl of BM
Tidelands Avenue/Civic Center Drive[1]							
Harbor Dr–W 19th St[2]	60.9	63.8	63.8	63.8	63.8	69.4	63.8
W 19th St–Bay Marina Dr[2]	61.7	64.5	64.5	64.5	64.5	69.7	64.5
Bay Marina Dr–32nd St[2]	60.5	63.4	Closed	63.4	Closed	Closed	Closed
McKinley Avenue/West 23rd Street[3]							
W 14th St–W 18th St	50.0	50.6	52.0	50.6	52.0	50.0	52.0
W 18th St–W 19th St[2]	50.2	50.6	50.6	50.6	50.6	50.3	50.6
W 19th St–Cleveland Ave	49.3	50.0	50.0	50.0	50.0	49.3	50.0
Cleveland Avenue							
Civic Center Dr–W 14th St[2]	61.3	61.7	61.7	61.7	61.7	61.3	61.7
W 14th St–W 18th St[2]	61.2	61.6	61.6	61.6	62.1	61.3	62.1
W 18th St–W 19th St	61.7	62.0	62.1	62.1	62.4	61.9	62.4
W 19th St–W 23rd St	61.5	61.9	62.2	61.9	62.4	62.1	62.4
W 23rd St–Bay Marina Dr[2]	62.0	62.3	65.5	62.3	65.5	65.5	65.5
Bay Marina Drive							
Tidelands Ave–Marina Way[2]	65.9	67.4	67.5	67.4	67.5	Closed	67.5
Marina Way–Cleveland Ave	66.4	67.9	69.6	68.0	69.6	66.2	69.6
Cleveland Ave–I-5 SB ramps[2]	68.8	70.3	72.2	70.4	72.2	70.7	72.2
I-5 SB Ramps–I-5 NB ramps[2]	70.4	71.9	72.2	71.9	72.2	71.3	72.2
West 18th Street							
Cleveland Ave–McKinley Ave	53.8	54.3	54.6	54.3	55.5	54.2	55.5
West 19th Street							
Tidelands Ave–Cleveland Ave[2]	58.8	59.2	59.4	59.2	59.4	59.3	59.4
Cleveland Ave–McKinley Ave[2]	56.4	56.8	57.0	56.8	56.9	56.6	56.9

Roadway/Segment	Estimated Unmitigated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)						
	Existing	2030 Base	2030 + DP	2030 + DPW	2030 + TB	2030 + TB + Cl of BM	2030 + TB + P-Cl of BM
Marina Way							
Bay Marina Dr–32nd St	53.1	53.4	59.6	53.7	59.7	59.6	59.7
32nd Street							
Tidelands Ave–Marina Way[2]	50.3	50.6	50.9	51.1	51.5	50.9	51.5

Source: Appendix J.

[1] The north end Tidelands Avenue becomes Civic Center Drive just west of Cleveland Avenue.

[2] No existing offsite noise-sensitive receptors are adjacent to this roadway segment.

[3] The south end of McKinley Avenue turns into West 23rd Street just east of Cleveland Avenue.

Cl of BM = Closure of Bay Marina Dr; CNEL = Community Noise Equivalent Level; dB = decibels; DP = Development Projects; DPW = District Public Works; EX = Existing; NB = northbound; P-Cl of BM = Partial Closure (Narrowing) of Bay Marina Dr; SB = southbound; TB = Total Bayfront.

Table 5-4. Estimated Cumulative (2030) Traffic Noise Level Increases for Offsite Assessment

	Estimated Traffic Noise Level Increases Above Existing and 2030 Base Conditions (dB CNEL)									
	2030 + DP		2030 + DPW		2030 + TB		2030 + TB + Cl of BM		Ex + TB + P-Cl of BM	
Roadway/Segment	Existing	2030 Base	Existing	2030 Base	Existing	2030 Base	Existing	2030 Base	Existing	2030 Base
Tidelands Avenue/Civic Center Drive[1]										
Harbor Dr–W 19th St[2]	2.9	0.0	2.9	0	2.9	0.0	8.5	5.6	2.9	0.0
W 19th St–Bay Marina Dr[2]	2.8	0.0	2.8	0	2.8	0.0	8.0	5.2	2.8	0.0
Bay Marina Dr–32nd St[2]	Closed	Closed	2.9	0	Closed	Closed	Closed	Closed	Closed	Closed
McKinley Avenue/West 23rd Street[3]										
W 14th St–W 18th St	2.0	1.4	0.6	0.0	2.0	1.4	0.0	-0.6	2.0	1.4
W 18th St–W 19th St[2]	0.4	0.0	0.4	0.0	0.4	0.0	0.1	-0.3	0.4	0.0
W 19th St–Cleveland Ave	0.7	0.0	0.7	0.0	0.7	0.0	0.0	-0.7	0.7	0.0
Cleveland Avenue										
Civic Center Dr–W 14th St[2]	0.4	0.0	0.4	0.0	0.4	0.0	0.0	-0.4	0.4	0.0
W 14th St–W 18th St[2]	0.4	0.0	0.4	0.0	0.9	0.5	0.1	-0.3	0.9	0.5
W 18th St–W 19th St	0.4	0.1	0.4	0.1	0.7	0.4	0.2	-0.1	0.7	0.4
W 19th St–W 23rd St	0.7	0.3	0.4	0.0	0.9	0.5	0.6	0.2	0.9	0.5
W 23rd St–Bay Marina Dr[2]	3.5	3.2	0.3	0.0	3.5	3.2	3.5	3.2	3.5	3.2
Bay Marina Drive										
Tidelands Ave–Marina Way[2]	1.6	0.1	1.5	0.0	1.6	0.1	Closed	Closed	1.6	0.1
Marina Way–Cleveland Ave	3.2	1.7	1.6	0.1	3.2	1.7	-0.2	-1.7	3.2	1.7
Cleveland Ave–I-5 SB ramps[2]	3.4	1.9	1.6	0.1	3.4	1.9	1.9	0.4	3.4	1.9
I-5 SB Ramps–I-5 NB ramps[2]	1.8	0.3	1.5	0.0	1.8	0.3	0.9	-0.6	1.8	0.3
West 18th Street										
Cleveland Ave–McKinley Ave	0.8	0.3	0.5	0.0	1.7	1.2	0.4	-0.1	1.7	1.2
West 19th Street										
Tidelands Ave–Cleveland Ave[2]	0.6	0.2	0.4	0.0	0.6	0.2	0.5	0.1	0.6	0.2
Cleveland Ave–McKinley Ave[2]	0.6	0.2	0.4	0.0	0.5	0.1	0.2	-0.2	0.5	0.1

	Estimated Traffic Noise Level Increases Above Existing and 2030 Base Conditions (dB CNEL)									
	2030 + DP		2030 + DPW		2030 + TB		2030 + TB + Cl of BM		Ex + TB + P-Cl of BM	
Roadway/Segment	Existing	2030 Base	Existing	2030 Base	Existing	2030 Base	Existing	2030 Base	Existing	2030 Base
Marina Way										
Bay Marina Dr–32nd St	6.5	6.2	0.6	0.3	6.6	6.3	6.5	6.2	6.6	6.3
32nd Street										
Tidelands Ave–Marina Way[2]	0.6	0.3	0.8	0.5	1.2	0.9	0.6	0.3	1.2	0.9

Source: Appendix J.

[1] The north end Tidelands Avenue becomes Civic Center Drive just west of Cleveland Avenue.

[2] No existing offsite noise-sensitive receptors are adjacent to this roadway segment.

[3] The south end of McKinley Avenue turns into West 23rd Street just east of Cleveland Avenue.

Cl of BM = Closure of Bay Marina Dr; CNEL = Community Noise Equivalent Level; dB = decibels; DP = Development Projects; DPW = District Public Works; EX = Existing; NB = northbound; P-Cl of BM = Partial Closure of Bay Marina Dr; SB = southbound; TB = Total Bayfront.

Table 5-5. Estimated Cumulative (2030) Traffic Noise Levels for Offsite Assessment

	Estimated Unmitigated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)						
Roadway/Segment	Existing	2050 Base	2050 + DP	2050 + DPW	2050 + TB	2050 + TB + Cl of BM	2050 + TB + P-Cl of BM
Tidelands Avenue/Civic Center Drive[1]							
Harbor Dr–W 19th St[2]	60.9	64.1	64.1	64.1	64.1	69.6	64.1
W 19th St–Bay Marina Dr[2]	61.7	64.8	64.8	64.8	64.8	69.8	64.8
Bay Marina Dr–32nd St[2]	60.5	63.6	Closed	63.6	Closed	Closed	Closed
McKinley Avenue/West 23rd Street[3]							
W 14th St–W 18th St	50.0	50.6	52.2	50.6	52.2	50.0	52.2
W 18th St–W 19th St[2]	50.2	51.0	51.0	51.0	51.0	50.3	51.0
W 19th St–Cleveland Ave	49.3	50.0	50.0	50.0	50.0	49.3	50.0
Cleveland Avenue							
Civic Center Dr–W 14th St[2]	61.3	62.0	62.0	62.1	62.1	61.3	62.1
W 14th St–W 18th St[2]	61.2	62.0	62.0	62.0	62.5	61.3	62.5
W 18th St–W 19th St	61.7	62.5	62.5	62.5	62.8	61.9	62.8
W 19th St–W 23rd St	61.5	62.3	62.6	62.3	62.8	62.1	62.8
W 23rd St–Bay Marina Dr[2]	62.0	62.7	65.7	62.7	65.7	65.5	65.7
Bay Marina Drive							
Tidelands Ave–Marina Way[2]	65.9	67.6	67.7	67.6	67.7	Closed	67.7
Marina Way–Cleveland Ave	66.4	68.0	69.6	68.1	69.7	66.2	69.7
Cleveland Ave–I-5 SB ramps[2]	68.8	70.5	72.3	70.5	72.3	70.8	72.3
I-5 SB Ramps–I-5 NB ramps[2]	70.4	72.0	72.3	72.1	72.3	71.4	72.3
West 18th Street							
Cleveland Ave–McKinley Ave	53.8	54.6	54.9	54.6	55.7	54.2	55.7
West 19th Street							
Tidelands Ave–Cleveland Ave[2]	58.8	59.6	59.8	59.6	59.8	59.3	59.8
Cleveland Ave–McKinley Ave[2]	56.4	57.1	57.3	57.1	57.1	56.6	57.1

Roadway/Segment	Estimated Unmitigated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)						
	Existing	2050 Base	2050 + DP	2050 + DPW	2050 + TB	2050 + TB + Cl of BM	2050 + TB + P-Cl of BM
Marina Way							
Bay Marina Dr–32nd St	53.1	53.8	59.8	54.1	59.8	59.6	59.8
32nd Street							
Tidelands Ave–Marina Way[2]	50.3	51.0	51.0	51.5	51.5	50.9	51.5

Source: Appendix J.

[1] The north end Tidelands Avenue becomes Civic Center Drive just west of Cleveland Avenue.

[2] No existing offsite noise-sensitive receptors are adjacent to this roadway segment.

[3] The south end of McKinley Avenue turns into West 23rd Street just east of Cleveland Avenue.

Cl of BM = Closure of Bay Marina Dr; CNEL = Community Noise Equivalent Level; dB = decibels; DP = Development Projects; DPW = District Public Works; EX = Existing; NB = northbound; P-Cl of BM = Partial Closure (Narrowing) of Bay Marina Dr; SB = southbound; TB = Total Bayfront.

Table 5-6. Estimated Cumulative (2030) Traffic Noise Level Increases for Offsite Assessment

	Estimated Traffic Noise Level Increases Above Existing and 2030 Base Conditions (dB CNEL)									
	2050 + DP		2050 + DPW		2050 + TB		2050 + TB + Cl of BM		Ex + TB + P-Cl of BM	
Roadway/Segment	Existing	2050 Base	Existing	2050 Base	Existing	2050 Base	Existing	2050 Base	Existing	2050 Base
Tidelands Avenue/Civic Center Drive[1]										
Harbor Dr–W 19th St[2]	3.2	0.0	3.2	0.0	3.2	0.0	8.7	5.5	3.2	0.0
W 19th St–Bay Marina Dr[2]	3.1	0.0	3.1	0.0	3.1	0.0	8.1	5.0	3.1	0.0
Bay Marina Dr–32nd St[2]	Closed	Closed	3.1	0.0	Closed	Closed	Closed	Closed	Closed	Closed
McKinley Avenue/West 23rd Street[3]										
W 14th St–W 18th St	2.2	1.6	0.6	0.0	2.2	1.6	0.0	-0.6	2.2	1.6
W 18th St–W 19th St[2]	0.8	0.0	0.8	0.0	0.8	0.0	0.1	-0.7	0.8	0.0
W 19th St–Cleveland Ave	0.7	0.0	0.7	0.0	0.7	0.0	0.0	-0.7	0.7	0.0
Cleveland Avenue										
Civic Center Dr–W 14th St[2]	0.7	0.0	0.8	0.1	0.8	0.1	0.0	-0.7	0.8	0.1
W 14th St–W 18th St[2]	0.8	0.0	0.8	0.0	1.3	0.5	0.1	-0.7	1.3	0.5
W 18th St–W 19th St	0.8	0.0	0.8	0.0	1.1	0.3	0.2	-0.6	1.1	0.3
W 19th St–W 23rd St	1.1	0.3	0.8	0.0	1.3	0.5	0.6	-0.2	1.3	0.5
W 23rd St–Bay Marina Dr[2]	3.7	3.0	0.7	0.0	3.7	3.0	3.5	2.8	3.7	3.0
Bay Marina Drive										
Tidelands Ave–Marina Way[2]	1.8	0.1	1.7	0.0	1.8	0.1	Closed	Closed	1.8	0.1
Marina Way–Cleveland Ave	3.2	1.6	1.7	0.1	3.3	1.7	-0.2	-1.8	3.3	1.7
Cleveland Ave–I-5 SB ramps[2]	3.5	1.8	1.7	0.0	3.5	1.8	2.0	0.3	3.5	1.8
I-5 SB Ramps–I-5 NB ramps[2]	1.9	0.3	1.7	0.1	1.9	0.3	1.0	-0.6	1.9	0.3
West 18th Street										
Cleveland Ave–McKinley Ave	1.1	0.3	0.8	0.0	1.9	1.1	0.4	-0.4	1.9	1.1
West 19th Street										
Tidelands Ave–Cleveland Ave[2]	1.0	0.2	0.8	0.0	1.0	0.2	0.5	-0.3	1.0	0.2
Cleveland Ave–McKinley Ave[2]	0.9	0.2	0.7	0.0	0.7	0.0	0.2	-0.5	0.7	0.0

	Estimated Traffic Noise Level Increases Above Existing and 2030 Base Conditions (dB CNEL)									
	2050 + DP		2050 + DPW		2050 + TB		2050 + TB + Cl of BM		Ex + TB + P-Cl of BM	
Roadway/Segment	Existing	2050 Base	Existing	2050 Base	Existing	2050 Base	Existing	2050 Base	Existing	2050 Base
Marina Way										
Bay Marina Dr–32nd St	6.7	6.0	1.0	0.3	6.7	6.0	6.5	5.8	6.7	6.0
32nd Street										
Tidelands Ave–Marina Way[2]	0.7	0.0	1.2	0.5	1.2	0.5	0.6	-0.1	1.2	0.5

Source: Appendix J.

[1] The north end Tidelands Avenue becomes Civic Center Drive just west of Cleveland Avenue.

[2] No existing offsite noise-sensitive receptors are adjacent to this roadway segment.

[3] The south end of McKinley Avenue turns into West 23rd Street just east of Cleveland Avenue.

Cl of BM = Closure of Bay Marina Dr; CNEL = Community Noise Equivalent Level; dB = decibels; DP = Development Projects; DPW = District Public Works; EX = Existing; NB = northbound; P-Cl of BM = Partial Closure (Narrowing) of Bay Marina Dr; SB = southbound; TB = Total Bayfront

Table 5-7. Estimated Cumulative Traffic Noise Levels for Onsite Assessment

	Estimated Unmitigated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)						
Roadway/Segment	DP	DPW	TB	Cl of BM	P-Cl of BM	TB + Cl of BM	TB + P-Cl of BM
McKinley Avenue/West 23rd Street[1]							
W 19th St–Cleveland Ave							
Near Term	50.0	50.0	50.0	N/A	N/A	49.3	50.0
Future	50.0	50.0	50.0	N/A	N/A	49.3	50.0
Cleveland Avenue							
W 23rd St–Bay Marina Dr							
Near Term	**65.5***	62.3	**65.5***	N/A	N/A	**65.5***	**65.7***
Future	**65.7***	62.7	**65.7***	N/A	N/A	**65.5***	**65.7***
Bay Marina Drive							
Marina Way–Cleveland Ave							
Near Term	**69.6***	**68.0***	**69.6***	N/A	N/A	**66.2***	**69.7***
Future	**69.6***	**68.1***	**69.7***	N/A	N/A	**66.2***	**69.7***
Cleveland Ave–I-5 SB ramps							
Near Term	**72.2***	**70.4***	**72.2***	N/A	N/A	**70.8***	**72.3***
Future	**72.3***	**70.5***	**72.3***	N/A	N/A	**70.8***	**72.3***
Marina Way							
Bay Marina Dr–32nd St							
Near Term	59.6	53.7	59.7	N/A	N/A	59.6	59.8
Future	59.8	54.1	59.8	N/A	N/A	59.6	59.8
32nd Street							
Tidelands Ave–Marina Way							
Near Term	50.9	51.1	51.5	N/A	N/A	50.9	51.5
Future	51.0	51.5	51.5	N/A	N/A	50.9	51.5

Source: Appendix J.

[1] The south end of McKinley Avenue turns into West 23rd Street just east of Cleveland Avenue.

N/A = not analyzed in TIA

* = exceeds applicable threshold of 65 dB CNEL for visitor accommodations

Cl of BM = Closure of Bay Marina Dr; CNEL = Community Noise Equivalent Level; dB = decibels; DP = Development Projects; DPW = District Public Works; EX = Existing; NA = not applicable; NB = northbound; P-Cl of BM = Partial Closure (Narrowing) of Bay Marina Dr; SB = southbound; TB = Total Bayfront

5.3.10.3 Project Contribution

Construction

Using the noise standards contained in the City's Municipal Code and the significance thresholds developed for the project, noise and vibration from construction activities is effectively assessed based on distinct single events such as short-term (1-second) L_{max} noise levels from construction equipment or the instantaneous vibration (peak particle velocity [PPV]) from a single piece of equipment. Therefore, the noise and vibration levels experienced at any specific time at a given receptor are typically dominated by a single piece of construction equipment, and the cumulative increase due to additional pieces of equipment is minimal. Consequently, even if construction of related projects (e.g., Cumulative Project #46 or #49) were to occur concurrently with proposed project construction, the proposed project's contribution to cumulative impacts would be less than cumulatively considerable. In addition, implementation of **MM-NOI-1**, **MM-NOI-2**, **MM-NOI-3**, **MM-NOI-10**, and **MM-NOI-11** (which are provided in Section 4.10, *Noise and Vibration*) would serve to avoid or reduce noise and vibration contributions from proposed project construction.

Operation

Traffic (Offsite Impacts)

The only significant offsite cumulative traffic noise impact would occur at the Best Western Hotel adjacent to Bay Marina Drive between Marina Way and Cleveland Avenue. At this location the existing traffic noise level is above 65 dB CNEL (approximately 66 dB CNEL), and would increase by more than 3 dB under three scenarios (Near Term + Development Projects, Near Term + Total Bayfront, and Near Term + Total Bayfront with Partial Closure (Narrowing) of Bay Marina Drive) in both 2030 and 2050. The total cumulative noise increase would be up to 3.3 dB, but the proposed project's contribution to this increase would be 1.7 dB or less, which would be below the barely noticeable limit of 3 dB. As a result, the proposed project's contribution would be less than cumulatively considerable.

Traffic (Onsite Impacts)

The only significant onsite cumulative traffic noise impact would occur at the proposed City Program – Development Component, which is anticipated to be a hotel. Because this cumulative impact is directly related to a proposed project element, the proposed project's contribution would be cumulatively considerable (**Impact-C-NOI-1**).

Rail Operations

The only significant cumulative rail noise impact would occur at the proposed visitor accommodations at the GB Capital Component of the proposed project. Because this cumulative impact is directly related to a proposed project element, the proposed project's contribution would be cumulatively considerable (**Impact-C-NOI-2**).

Onsite Operations

There would be no significant cumulative noise impacts related to onsite operations, and the proposed project's contribution would be less than cumulatively considerable. In addition, implementation of **MM-NOI-7**, **MM-NOI-8**, and **MM-NOI-9** (which are provided in Section 4.10) to

control the proposed project's noise from mechanical equipment, the dry boat storage facility, and organized events would serve to further reduce noise levels from onsite operations.

5.3.10.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative impacts related to onsite traffic and rail noise would be cumulatively considerable prior to mitigation. The potential cumulatively considerable impacts are as follows.

Impact-C-NOI-1: Exceedance of the City's General Plan Noise Exposure Standards Due to Traffic Noise at Onsite Visitor Accommodations (City Program – Development Component). Traffic noise exposure could exceed 65 dB CNEL at the proposed hotel at the City Program – Development Component site due to traffic on Cleveland Avenue and Bay Marina Drive.

Impact-C-NOI-2: Exceedance of the City's General Plan Noise Exposure Standards Due to Rail Noise at Onsite Visitor Accommodations (GB Capital Component, Pasha Rail Improvement Component). Rail noise exposure could exceed 65 dB CNEL at the proposed hotels and RV resort at the GB Capital Component site due to operations at the proposed Pasha Rail Improvement Component and existing NCMT rail operations.

5.3.10.5 Mitigation Measures

For **Impact-C-NOI-1**:

> Implement **MM-NOI-4: Design and Construct the Proposed Hotel at the City Program – Development Component Site to Achieve an Interior Noise level of 45 dB CNEL or Less at Noise-Sensitive Occupied Spaces**, as described in Section 4.10.

For **Impact-C-NOI-2**:

> Implement **MM-NOI-5: Reduce Rail Noise Levels at the Proposed GB Capital RV Sites to 65 dB CNEL or Less,** and **MM-NOI-6: Design and Construct the Hotels at the GB Capital Component to Achieve an Interior Noise level of 45 dB CNEL or Less at Noise-Sensitive Occupied Spaces**, as described in Section 4.10.

5.3.10.6 Level of Significance After Mitigation

With implementation of **MM-NOI-4** the proposed project's contribution to cumulative onsite traffic noise impacts would be less than cumulatively considerable.

With implementation of **MM-NOI-5** and **MM-NOI-6** the proposed project's contribution to cumulative onsite rail noise impacts would be less than cumulatively considerable.

5.3.11 Population and Employment

Cumulative impacts on population and employment could result when past, present, and reasonably foreseeable future projects combine to induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure).

5.3.11.1 Geographic Scope

Cumulative impacts for population and employment are based on a list of projects that are currently underway, approved, or proposed and likely to be implemented in the San Diego region. Therefore, the cumulative setting for population and employment includes all of the projects listed in Table 5-2.

5.3.11.2 Cumulative Effects

Past projects have resulted in the addition of temporary and permanent employment opportunities, typically drawn from existing residents of the San Diego region. Present and reasonably foreseeable future projects will continue to increase employment opportunities. The reasonably foreseeable future projects listed in Table 5-2 involve similar uses compared to existing conditions and would result in future permanent employment opportunities in hospitality, retail, other commercial businesses, and the industrial sector. However, additional jobs would not increase the population because employees are anticipated to be drawn from existing residents of the San Diego region, the population of which will also be growing consistent with the population growth projections provided in SANDAG's Regional Plan.

Potential cumulative population and employment impacts would result when projects induce population within the San Diego region that would exceed population growth projections provided in SANDAG's Regional Plan. Present and reasonably foreseeable future projects are anticipated to provide housing and employment for projected future populations within the San Diego region. Therefore, past, present, and reasonably foreseeable future projects would not be cumulatively significant.

5.3.11.3 Project Contribution

A project's contribution to a cumulative population and employment impact is relative to the potential to induce substantial population growth in an area, either directly or indirectly, where such population growth would lead to significant physical impacts on the environment for which a cumulatively considerable impact has been identified. The proposed project does not have a permanent residential component and, therefore, would not add an incremental contribution to cumulative housing impacts.

As described above, impacts from past, present, and reasonably foreseeable future projects on population and employment are less than cumulatively significant. Moreover, the proposed project's contribution, which was determined to be less than significant at the project level, would not be cumulatively considerable because the proposed project would not directly or indirectly induce substantial population growth through extension of roads or other infrastructure in the surrounding area. Therefore, the proposed project's contribution to cumulative impacts would be less than cumulatively considerable.

5.3.11.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative population and employment impacts would not be cumulatively considerable.

5.3.11.5 Mitigation Measures

No mitigation is required.

5.3.11.6 Level of Significance After Mitigation

The proposed project's incremental contribution to cumulative population and employment impacts would not be cumulatively considerable and would be less than significant.

5.3.12 Public Services and Recreation

Cumulative impacts on public services and recreation—including fire and emergency services, police protection, schools, and parks—could result when past, present, and reasonably foreseeable future projects combine to increase demand on public services and recreation facilities such that additional facilities must be constructed to maintain acceptable levels of service, and the construction of such facilities would result in a physical impact on the environment.

5.3.12.1 Geographic Scope

Cumulative impacts for public services and recreation are based on a list of projects that are currently underway, approved, or proposed and likely to be implemented within and near National City and more generally within the service areas of the service providers discussed in Section 4.12, *Public Services and Recreation*. Therefore, the cumulative setting for public services and recreation includes all of the projects listed in Table 5-2.

5.3.12.2 Cumulative Effects

Past projects have required new and expanded facilities as demand for public services has increased. Present and reasonably foreseeable future projects will continue to increase demand on public service providers and the need for new and expanded facilities. The reasonably foreseeable future projects listed in Table 5-2 involve similar uses compared to existing conditions and would not differ from existing urban development within the cumulative study area; however, as shown in Table 5-2, development of the cumulative projects could result in additional hotel rooms, residential units, office space, retail, and other uses.

Fire protection services would increase as present and future projects come online. As such, fire and emergency protection services would potentially require additional facilities as a result of present and reasonably foreseeable future development projects, the construction of which could have significant environmental impacts. However, new residential and non-residential developments are required to pay development impact fees to fund expansion of public facilities such as fire stations in order to maintain existing levels of service. Moreover, as discretionary projects are considered by relevant agencies, CEQA review is required and will consider the potential for projects to trigger the need for new fire protection facilities. Therefore, cumulative fire protection impacts from these projects would not be potentially be significant.

Police protection services would increase as present and future projects come online. However, unlike fire services, specific facilities would not be needed in specific locations (i.e., within a certain response time radius) to house equipment and vehicles and response personnel to adequately respond to calls. Thus, while there may be a need to increase personnel and equipment, there would not be the similar need to increase physical facilities in the cumulative study area. Therefore, cumulative police protection impacts from cumulative projects would not be significant.

Potential cumulative park and recreational impacts would result when projects combine to place limitations on existing recreational facilities, or substantially increase demand on existing

recreational facilities such that expansion of those facilities would be necessary and the expansion would result in a physical impact. Several of the identified cumulative projects in Table 5-2 include park and recreation facilities, such as Westside Infill Transit Oriented Development (WI-TOD) (Cumulative Project #3), Central Embarcadero Redevelopment Project (Cumulative Project #31), and Bayside Performance Park Enhancement Project (Cumulative Project #33), which provide a cumulative benefit by increasing the amount of park and recreational area available to the public. Such additions within the District's jurisdiction will have occurred and will continue to occur in compliance with requirements of the California Coastal Act and the PMP. The PMP identifies parks, plazas, public shoreline access, and vista points to enhance the recreational experience around San Diego Bay, and calls for the provision of "a variety of public access and carefully selected active and passive recreational facilities suitable for all age groups including families with children throughout all seasons of the year." In addition, reasonably foreseeable future projects within the jurisdiction of the Cities of National City, Chula Vista, and San Diego are expected to provide parkland or to pay in lieu fees in accordance with the Quimby Act that will be used to improve existing parkland or purchase additional parkland. Therefore, impacts related to parkland and recreational facilities from past, present, and reasonably foreseeable future projects would not be cumulatively significant.

5.3.12.3 Project Contribution

A project's contribution to a cumulative public service or recreation impact is relative to the additional demand a project would place on a public services or recreational resources for which a cumulatively considerable impact has been identified. The proposed project does not have a permanent residential component and, therefore, would not add an incremental contribution to cumulative school impacts.

As described above, impacts from past, present, and reasonably foreseeable future projects on public services and recreation are less than cumulatively significant. Moreover, the proposed project's contribution, which was determined to be less than significant at the project level, would not be cumulatively considerable because new or expanded governmental facilities for police and fire would not be required as a result of the proposed project's operation.

As discussed under Thresholds 1 and 2 in Section 4.11, *Public Services and Recreation*, National City Fire Department's and Harbor Police Department's response capabilities to the project site would not be significantly affected by the proposed project, and continued acceptable service levels would be provided under project operational conditions (Ashton pers. comm., Hernandez pers. comm.). Similarly, the National City Police Department states that police response times are currently and would continue to be acceptable under project operational conditions (Tellez pers. comm.). Thus, operation of the proposed project would not require new or expanded facilities in order to maintain acceptable response times and service ratios (Ashton pers. comm., Hernandez pers. comm., Tellez pers. comm.). Similar to the proposed project, any cumulative project would be required to demonstrate that there are adequate police and fire protection services to serve the project. If additional facilities are required, an environmental analysis for the construction of a new facility would be required to identity any potential impacts and mitigation measures to reduce those impacts to the extent practicable. In addition, any future foreseeable projects that require the need for additional facilities would be required to provide fair share mitigation in proportion to their impact contribution. However, because the project's impact on fire and police services is less than significant, the proposed project's contribution to cumulative police and fire protection impacts would be less than cumulatively considerable.

As discussed under Thresholds 4 and 5 in Section 4.12, the proposed project would increase the total area of Pepper Park from approximately 5.22 acres to approximately 7.76 acres, which would result in a cumulative benefit on recreation. While construction and operational activities of the proposed Pepper Park expansion would result in significant impacts on air quality and health risk; cultural resources; energy; greenhouse gas emissions and climate change; hazards and hazardous materials; noise; transportation, circulation, and parking; and utilities and service systems, these individual impacts are all analyzed in their respective sections within this chapter. Importantly, however, the project would create more recreational space than what is currently available. As such, the project's contribution would not place limitations on existing recreational facilities or substantially increase demand on existing recreational facilities. Therefore, the project's contribution would not cause a cumulatively considerable addition to the effects on park and recreation from past, present, and reasonably foreseeable future projects.

5.3.12.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative public services and recreation impacts would not be cumulatively considerable.

5.3.12.5 Mitigation Measures

No mitigation is required.

5.3.12.6 Level of Significance After Mitigation

The proposed project's incremental contribution to cumulative public services and recreation impacts would not be cumulatively considerable and would be less than significant.

5.3.13 Transportation, Circulation, and Parking

Based on the changes to the State CEQA Guidelines initiated by the passage of SB 743, a project's impact on transportation is measured by the amount of vehicle miles traveled (VMT) that would be generated. By its nature, VMT is inherently a cumulative issue, as it is not likely that any single project would be large enough to prevent the region or state from meeting its VMT reduction targets, which correlate to the state's GHG reduction targets. Rather, a project's individual VMT contributes to cumulative VMT impacts. Therefore, the methodology for determining a project's cumulative VMT impact is the same as that for direct VMT impacts (see Section 4.13, *Transportation, Circulation, and Parking*).

Cumulative impacts on transportation, circulation, and parking could also occur if the proposed project, when combined with past, present, and probable future projects, would conflict with applicable programs, plans, ordinances or policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Additionally, cumulative impacts could occur if the proposed project, when combined with past, present, and probable future projects, would result in substantial increases in hazards due to geometric design features or incompatible uses, or result in inadequate emergency access. Lastly, a cumulative parking and public access impact could occur when these cumulative projects combine with the proposed project to result in an insufficient parking supply that would lead to a decrease in public coastal access.

5.3.13.1 Geographic Scope

The geographic scope for cumulative VMT impacts includes the San Diego region. As such, the VMT analysis within Section 4.13 is inherently a cumulative analysis. However, a summary of the discussion is provided below. The geographic scope of cumulative analysis for all other issues includes all past, present, and probable future projects identified within and near National City that have affected, or would have the potential to affect, the same transit, roadway, bicycle, and pedestrian facilities as the proposed project.

5.3.13.2 Cumulative Effects

Consistency with Applicable Programs, Plans, Ordinances, or Policies Addressing the Circulation System

The City's General Plan contains policies related to maintaining acceptable LOS, specifically Policy C-2.3, which is focused on maintaining LOS D or better for traffic operations. As such, the degradation of traffic operations to a LOS E or LOS F would be inconsistent with Policy C-2.3 of the City's General Plan. However, with the adoption of SB 743, a project's effect on automobile delay no longer constitutes a significant environmental impact under CEQA (State CEQA Guidelines Section 15064.3). Therefore, the inconsistency with the City's General Plan, as it relates to delay-based traffic operation metrics, is provided for informational purposes only, in Appendix K, and does not constitute a significant impact on the environment. To address the change from LOS to VMT), as required by SB 743, in August 2020 the City issued a memo to provide clarifications and recommendations for how project applicants within the City's jurisdiction should evaluate transportation-related impacts in order to comply with SB 743. The memo recommends project applicants use the new *Guidelines for Transportation Impact Studies in the San Diego Region* (May 2019), which provides methodologies for transportation engineers and planners to conduct CEQA transportation analysis for land development and transportation projects in compliance with SB 743. The City memorandum is provided in Appendix M.

Cumulative effects on pedestrian, bicycle, and transit facilities could occur if past, present, and probable future projects would conflict with an applicable program, plan, ordinance, or policy addressing these facilities. Past projects, such as Interim Segment 5 of the Bayshore Bikeway (Cumulative Project #1), have implemented bicycle facilities identified in applicable plans, including the San Diego Regional Bike Plan and National City Bicycle Master Plan. Present and probable future projects would be required to demonstrate consistency with applicable programs, plans, ordinances, and policies related to pedestrian, bicycle, and transit facilities. Therefore, cumulative effects from past, present, and probable future projects would not be significant.

Vehicle Miles Traveled

The generation of VMT, which is a function of the number and distance of vehicle trips, is largely a cumulative impact by nature. VMT from past, present, and probable future projects have contributed to, and will continue to contribute to, cumulative VMT impacts as well as similarly cumulative secondary physical environmental effects such as increased GHG emissions. The VMT analysis was completed using the SANDAG Series 13 Activity Based Model (ABM), a travel demand forecasting model that incorporates census data and travel surveys to inform the algorithms of the model's projections. Series 13 ABM has four forecast scenarios: 2012, 2020, 2035, and 2050. As detailed further in Section 4.13, the 2050 Regional Average was selected as the most appropriate year to

conduct the VMT/Employee (miles/person) analysis because it represents the timeframe in which full buildout of the proposed project would be completed. Generally, the 2050 Regional Average includes past and present cumulative projects that were either constructed, in progress, or in the planning phases when the SANDAG Series 13 ABM was completed. As such, while these projects have been accounted for in the 2050 Regional Average VMT calculations, some present as well as probable future projects have not. The employment based 2050 Regional Average for the San Diego region is 22.2 miles per person.

Cumulative present and probable future projects would be required to comply with SB 743 during project-specific environmental review. However, although compliance is required, it is not guaranteed each present and probable future project would be able to achieve a 15% reduction (or other applicable thresholds used by the relevant Lead Agency) below regional average VMT. Mitigation may reduce VMT for a project, but still may not reduce potential impacts to a less-than-significant level. Projects that cannot reach the VMT reduction goal of 15% below the regional average would contribute to increased VMT in the region, which would contribute to the prevention of the state and region reaching the established GHG reduction targets. Therefore, present and probable future projects in the region could result in a cumulatively significant VMT.

Hazards Due to Geometric Design Features and Incompatible Uses

There are several past, present, and probable future projects from Table 5-2 that involve modifications and improvements to transportation facilities within the geographic scope, some of which could include geometric design hazards or introduce incompatible uses. These include Interim Segment 5 of the Bayshore Bikeway (Cumulative Project #1), National City Marine Terminal Tank Farm Paving and Street Closures Project (Cumulative Project #5), Pavement Improvements at National City (Cumulative Project #46), and Pavement Maintenance at National City (Cumulative Project #49).

Past projects such as the Interim Segment 5 of the Bayshore Bikeway (Cumulative Project #1) and National City Marine Terminal Tank Farm Paving and Street Closures Project (Cumulative Project #5) have already been approved and constructed, and therefore would have been required to be designed to ensure that they would not substantially increase hazards to bicyclists or motorists due to geometric design features. Additionally, reasonably foreseeable future projects such as the Pavement Improvements at National City (Cumulative Project #46) and Pavement Maintenance at National City (Cumulative Project #49) would involve repair, replacement, reconstruction, and/or slurry seals of asphalt and concrete paving around District Tidelands in National City. These improvements would be relatively minor and would not include any components that would substantially increase hazards due to geometric design features or incompatible uses. Any temporary roadway and sidewalk closures would occur in accordance with existing City requirements to ensure that safe alternative means of pedestrian, bicycle, and vehicle access are provided during the temporary closures. Therefore, cumulative effects from past, present, and probable future projects would not be significant.

Emergency Access

With the exception of the National City Marine Terminal Tank Farm Paving and Street Closures Project (Cumulative Project #5), none of the past, present, and probable future projects from Table 5-2 within the geographic scope have included or would include components that could affect emergency access. This past cumulative project included the closure of Quay Avenue between Bay

Marina Drive and 28th Street, 28th Street between Quay Avenue and the National City Marine Terminal, and 32nd Street west of Tidelands Avenue in order to provide additional space for marine terminal operations, which primarily include import, export, handling, and storage of motor vehicles. However, the EIR prepared for that project (UPD #EIR-2014-188; SCH# 2014121046) determined that these closures would not result in inadequate emergency access, nor would they contribute to a cumulatively considerable impact on emergency access. Reasonably foreseeable future projects such as the Pavement Improvements at National City (Cumulative Project #46) and Pavement Maintenance at National City (Cumulative Project #49) would involve repair, replacement, reconstruction, and/or slurry seals of asphalt and concrete paving around District Tidelands in National City, which could require temporary roadway closures. However, any temporary roadway closures would occur in accordance with existing City requirements to ensure that adequate emergency access is provided during the temporary closures. Therefore, cumulative effects from past, present, and probable future projects would not be significant.

Parking and Public Coastal Access

The uses within the geographic scope of cumulative analysis for parking and public coastal access consist primarily of marine terminal uses, as well as recreational uses such as Pepper Park, Pier 32 Marina, and the National City Aquatic Center. With the exception of the National City Marine Terminal Tank Farm Paving and Street Closures Project (Cumulative Project #5), none of the past, present, and probable future projects from Table 5-2 within the geographic scope have included or would include components that result in a loss of parking and thereby affect public coastal access. This past cumulative project included the closure of Quay Avenue between Bay Marina Drive and 28th Street, 28th Street between Quay Avenue and the National City Marine Terminal, and 32nd Street west of Tidelands Avenue. However, the EIR prepared for that project determined that the removal of parking from these road closures would not create a parking deficiency that could affect public coastal access of the nearby recreational uses (e.g., Pepper Park). Additionally, mitigation was included in the National City Marine Terminal Tank Farm Paving and Street Closures Project EIR requiring the provision of additional onsite parking for terminal employees, which would reduce the demand for street parking that could otherwise be used for public coastal access. Reasonably foreseeable future projects such as the Pavement Improvements at National City (Cumulative Project #46) and Pavement Maintenance at National City (Cumulative Project #49) would involve repair, replacement, reconstruction, and/or slurry seals of asphalt and concrete paving around District Tidelands in National City, which could temporarily result in a loss of parking. However, any temporary loss of parking would likely be minimal and would not be anticipated to affect public coastal access. Therefore, cumulative effects from past, present, and probable future projects would not be significant.

5.3.13.3 Project Contribution

As noted above, past, present, and probable future projects identified in Table 5-2 have not resulted in cumulative effects related to inconsistencies with applicable programs, plans, ordinances, and policies addressing the circulation system, including transit, roadway, pedestrian, and bicycle facilities; hazards due to geometric design features or incompatible uses; inadequate emergency access; or parking and public access. Therefore, the proposed project would not have the potential to contribute to cumulative impacts related to these issues.

As discussed in Section 4.13, the employment uses associated with the proposed project (GB Capital Component, City Program – Development Component) do not achieve a VMT reduction of 15%

below the 2050 Regional Average. Because of the cumulative nature of VMT, this direct project VMT impact would also be considered a cumulative impact of the proposed project. Therefore, the proposed project's contribution to VMT impacts would be cumulatively considerable (**Impact-C-TRA-1**).

The Bay Marina Drive (City Program – Development Component) closure (to through traffic at Marina Way) would result in changes to the transportation network and the redistribution of traffic in the study area. The closure of Bay Marina Drive (to through traffic at Marina Way) would require trips traveling to and from the terminal to now exit the I-5/Civic Center Drive interchange instead of the I-5/Bay Marina Drive interchange. This would increase the study area's total VMT by 1.7 miles. As such, the VMT impacts associated with the Bay Marina Drive closure's induced travel would be considered a cumulative impact of the proposed project. Therefore, the proposed project's VMT impact from the closure of Bay Marina Drive (to through traffic at Marina Way) would be cumulatively considerable (**Impact-C-TRA-2**).

5.3.13.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative transportation impacts would be cumulatively considerable prior to mitigation. The potential cumulatively considerable impacts are as follows.

Impact-C-TRA-1: Generate Cumulatively Considerable Vehicles Miles Traveled in Exceedance of Employment-Based Thresholds During Project Operations. Employment associated with operation of the proposed project would not achieve a VMT reduction of 15% below the 2050 Regional Average. Therefore, employment uses associated with the proposed project (GB Capital Component, City Program – Development Component) would have a cumulatively considerable VMT impact.

Impact-C-TRA-2: Generate Cumulatively Considerable Vehicles Miles Traveled due to closure of Bay Marina Drive to Through Traffic at Marina Way. The proposed closure of Bay Marina Drive (to through traffic at Marina Way) would result in changes to the transportation network and the redistribution of traffic. As such, the VMT impacts associated with the Bay Marina Drive closure's induced travel would result in a significant VMT impact. Therefore, the closure of Bay Marina Drive to through traffic at Marina Way (City Program – Development Component) would have a cumulatively considerable VMT impact.

5.3.13.5 Mitigation Measures

For **Impact-C-TRA-1:**

Implement **MM-TRA-1: Implement TDM and VMT Reduction Measures**, as described in Section 4.13.

For **Impact-C-TRA-2:**

Implement **MM-TRA-2: Implement TDM Plan**, as described in Section 4.13**.**

5.3.13.6 Level of Significance After Mitigation

For **Impact-C-TRA-1:**

Employee trips associated with operation of the proposed project would not achieve a VMT reduction of 15% below the 2050 Regional Average (**Impact-C-TRA-1**). Implementation of the TDM and VMT reduction measures from the SANDAG Mobility Management Toolbox's VMT Reduction Calculator Tool (SANDAG 2019), as required by **MM-TRA-1**, would reduce employment-based VMT generated during project operations. However, despite the implementation of these measures, the employment-based VMT generated by the proposed project would not be reduced below the applicable threshold. Therefore, **Impact-C-TRA-1** would be cumulatively considerable and unavoidable after mitigation.

For **Impact-C-TRA-2:**

The proposed closure of Bay Marina Drive (to through traffic at Marina Way) would result in changes to the transportation network that would induce travel and increase the study area's total VMT by 1.7 miles (**Impact-C-TRA-2**). Implementation of **MM-TRA-2** could be sufficient to reduce the study area's induced travel's VMT by 1.7 miles or more; however, it is not guaranteed that the employment trip reduction measures would be effectively executed such that the study area's total VMT would not be reduced to below than no-project conditions. Therefore, **Impact-C-TRA-2** would be cumulatively considerable and unavoidable after mitigation.

5.3.14 Utilities and Service Systems

Cumulative impacts on utilities and service systems may occur when projects combine to increase demand such that additional services must be provided, or additional facilities constructed. This usually would result from the incremental addition of people permanently occupying an area or the incremental construction of new or larger buildings requiring the provision of new or expanded utilities and service systems to meet the new permanent demand. However, if the environmental conditions would essentially be the same with or without the proposed project's contribution, then the effect on the environment from the proposed project would not be significant.

5.3.14.1 Geographic Scope

The geographic scope of cumulative impacts for utilities and service systems is based on a mix of the List Method and the Plan Method. A significant cumulative impact would result if the proposed project were to contribute to cumulative impacts that exceeded the planned use and capacity of the wastewater, water, solid waste, and/or other service providers, which project future supply and demand based on current land use and development projections within their respective service areas. Therefore, the cumulative setting for utilities and service systems includes all of the projects listed in Table 5-2 and all of the growth assumptions provided in regional planning documents such as a Urban Water Management Plan (UWMP).

5.3.14.2 Cumulative Effects

As discussed in Section 4.14, *Utilities and Service Systems*, wastewater services within the cumulative geographic scope for utilities and service systems are provided by the National City Wastewater Division, which collects wastewater that is treated by the City of San Diego at the Point Loma Wastewater Treatment Plant (PLWTP) in Point Loma. As a result of past development, increases in wastewater facility demands have occurred. However, because the PLWTP currently treats 175 million gallons per day (mgd), has a treatment capacity of 240 mgd, and is anticipated to meet the

projected needs of the service area, impacts from past, present, and reasonably foreseeable future projects are not cumulatively significant.

For water services, the SWA has prepared a 2015 UWMP as required by the California Water Code to identify potable water supplies for projected future growth through 2040. Population and growth projections are based on SANDAG's Series 13 growth estimates to determine future water demand and plan future water supplies until the year 2040. The City of National City and the City of San Diego's 2015 UWMPs were prepared in coordination with the City of National City and City of San Diego's wholesale water supplier, the San Diego County Water Authority, and demonstrates how water would be available for the planned growth in the service area. Most of the cumulative projects identified in Table 5-2 are consistent with SANDAG's growth projections, which includes projects in the District's jurisdiction, the City's jurisdiction, the City of San Diego's jurisdiction, and the City of Chula Vista's jurisdiction, consistent with the designations of the PMP. Moreover, for cumulative projects that are included in SANDAG's growth projections but are not consistent with or anticipated in the PMP, the San Diego County Water Authority's (Water Authority's) 2015 UWMP includes additional water supplies to account for "accelerated forecasted growth."[2] Water supplies to meet accelerated forecasted growth range from 2,632 acre-feet per year (AFY) in 2020 to 11,186 AFY in 2040. As a member agency of the San Diego County Water Authority, the City has access to regional supplies associated with accelerated forecasted growth (Water Authority 2015). However, SWA, as with other water agencies in the region, continues to rely on imported water from Metropolitan Water District (Metropolitan) and the Water Authority to bridge the gap between its available local supply and current and future demands within its service area. The Water Authority's 2015 UWMP identifies projects and programs to help ensure that the existing and planned water users within the SWA service area have an adequate supply. Metropolitan has also prepared and adopted an updated 2015 Integrated Water Resources Plan (IWRP) that outlines strategies for water reliability. Implementation of these strategies by Metropolitan, the Water Authority, and local water agencies will assure adequate supply to support growth and redevelopment within the region. However, it should be noted that programs in the updated Metropolitan planning documents require future discretionary decisions by Metropolitan's Board of Directors. Until these programs are fully implemented by Metropolitan to manage current changed conditions and other uncertainties, the San Diego region will remain susceptible to potential water shortages. In addition, due to uncertainty with the pending suit filed by Imperial Irrigation District (IID) and the possibility that Metropolitan would need to cut back Colorado River water deliveries in accordance with the Lower Basin Drought Contingency Plan (DCP)—in addition to uncertainty with legal and regulatory issues involving utilization of the Delta to convey State Water Project water—and the potential for prolonged droughts due to climate change, SWA cannot guarantee that at some point in the future, supply of imported water could be diminished (Appendix N). Therefore, cumulative effects on water supply from past, present, and reasonably foreseeable future projects would be significant.

Many of the cumulative projects listed in Table 5-2 would generate solid waste. AB 939 required municipalities to achieve a 50% diversion rate for solid waste. AB 341, which went into effect in 2020, mandates recycling for commercial uses (i.e., businesses). AB 341 also sets a statewide goal of 75% solid waste diversion rate. Moreover, California's Green Building Standards Code (CALGreen) requires the diversion of at least 65% of the construction waste generated (CALGreen Sections

[2] More information on Accelerated Forecasted Growth is available in the San Diego County Water Authority's 2015 UWMP, which is available at http://www.sdcwa.org/sites/default/files/files/water-management/water_resources/2015%20UWMP%20Final%2006222016.pdf.

4.408 and 5.408). Compliance with these laws and regulations is mandatory. In addition, remaining landfill capacity at the region's four landfills totals approximately 146,359,020 cubic yards. While the cumulative projects listed in Table 5-2 would increase solid waste generation, it is anticipated that the region has sufficient landfill capacity to accommodate solid waste generated by these projects. As such, impacts on solid waste facilities from past, present, and reasonably foreseeable future projects would not be cumulatively significant.

5.3.14.3 Project Contribution

As described above, impacts from past, present, and reasonably foreseeable future projects on wastewater treatment capacity are less than cumulatively significant. As such, the proposed project's impacts on wastewater treatment capacity, which were determined to be less than significant at the project level, would not have a cumulatively considerable impact on the area's wastewater treatment.

Project-level impacts associated with water facilities are anticipated to be less than significant (**Impact-UTIL-1**) with the implementation of **MM-UTIL-1** and **MM-UTIL-2**, which would ensure the capacities of utility facilities are assessed and constructed (if improvements are needed to serve the project component[s]) prior to issuance of building permits (**MM-UTIL-1)**, and require the implementation of water conservation measures (**MM-UTIL-2)**. Fire flow analyses prepared for the proposed project identify that SWA's water distribution system has limitations in meeting some projected fire flow demands. According to the SWA, the projected fire flow demand of 6,250 gallons per minute (gpm) for the City Program – Development Component and 7,250 gpm for the 81-room hotel (to be operated under the GB Capital Component), added to maximum day demands for SWA's distribution system, would not be met through the existing, nearby 12-inch PVC pipelines (**Impact-UTIL-2**). In order to meet the fire flow demands plus maximum day demands, the existing 12-inch pipelines would need to be upgraded. However, with implementation of **MM-UTIL-3,** impacts associated with pipeline capacity to meet the fire flow demands plus maximum daily demands would be reduced to a less-than-significant level by requiring the upsizing of existing 12-inch PVC pipeline on Bay Marina Drive. Impacts associated with wastewater (aka sewer) lines/facilities are anticipated to be less than significant (**Impact-UTIL-3**) with the implementation of **MM-UTIL-4** and **MM-UTIL-1**. Moreover, the proposed project identifies a significant impact associated with water supply (**Impact-UTIL-6**). However, with implementation of **MM-UTIL-1**, **MM-UTIL-2, MM-UTIL-5,** and **MM-UTIL-6** the project's impacts would be less than significant. Consequently, the proposed project's impacts on water, fireflow, sewer lines, and water supply are not cumulatively considerable.

Impacts associated with stormwater facilities (**Impact-UTIL-4**) and electricity, natural gas, and telecommunications facilities (**Impact-UTIL-5**) are anticipated to be less than significant with implementation of **MM-UTIL-1**. Therefore, the proposed project's contribution to new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects, is not cumulatively considerable.

As discussed in Section 4.14, operation of the proposed project would generate 1,315 cubic yards of disposable solid waste per year. Otay Landfill is closest to the project site and has a permitted remaining capacity of 21,194,008 cubic yards. The proposed project's annual operational contribution of solid waste would be 0.00006% of the landfill's remaining capacity. This represents a conservative estimate because the District and the City would be required to comply with

applicable waste diversion requirements. In the event that Otay Landfill's capacity is reached, solid waste generated at the project site would be routed to Sycamore Canyon Landfill, which has a remaining capacity of 113,972,637 cubic yards, or Borrego Landfill, which has a remaining capacity of 111,504 cubic yards. Both of these landfills could sufficiently accommodate solid waste generated under the proposed project. Therefore, implementation of the proposed project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Therefore, the proposed project's contribution to solid waste impacts would be considered less than cumulatively considerable.

5.3.14.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative impacts related to utilities and service systems would not be cumulatively considerable.

5.3.14.5 Mitigation Measures

No mitigation is required.

5.3.14.6 Level of Significance After Mitigation

The proposed project's incremental contribution to cumulative utilities and service systems impacts would not be cumulatively considerable and would be less than significant.

Chapter 6
Additional Consequences of Project Implementation

6.1 Introduction

This chapter addresses the potential for additional consequences related to the implementation of the proposed project, pursuant to State CEQA Guidelines Sections 15126.2(c) and (d)[1] and 15128. Specifically, this chapter (1) addresses significant irreversible changes to the environment that would result from implementation of the proposed project; (2) discusses growth-inducing impacts of the proposed project, which pertain to ways in which the proposed project could promote either direct or indirect growth; and (3) discusses the environmental effects of the project that were determined not to be significant during the initial environmental review process.

6.2 Significant Irreversible Environmental Changes

As discussed in Section 3.4.7, *Port Master Plan Amendment Component*, the proposed project would involve a PMPA, and, therefore, pursuant to State CEQA Guidelines Section 15127, the EIR is required to comply with State CEQA Guidelines Section 15126.2(d). Section 15126.2(d) requires that the EIR identify any significant irreversible environmental changes resulting from the proposed project.

The project proposes the following components:

- Changes to land and water use designations in the District's PMP (Balanced Plan)
- Construction and operation of up to four hotels, a recreational vehicle park, modular cabins, dry boat storage, and an expanded marina primarily within the District's jurisdiction (GB Capital Component)
- Construction and operation of a rail connector track and storage track within the District's jurisdiction (Pasha Rail Improvement Component)
- Closure of Tidelands Avenue between Bay Marina Drive and 32nd Street as well as West 28th Street between Tidelands Avenue and Quay Avenue within the District's and City's jurisdictions, and redesignation of the area to Marine-Related Industrial in the District's PMP (Pasha Road Closures Component)
- Construction and operation of Segment 5 of the Bayshore Bikeway within the District's and City's jurisdictions (Bayshore Bikeway Component)
- Construction and operation of hotel, restaurant, retail, and/or a combination of tourist-/visitor-serving commercial development north of Bay Marina Drive and the potential closure or narrowing of Bay Marina Drive west of Marina Way to through vehicular traffic within the City's jurisdiction (City Program – Development Component)

[1] The requirements of State CEQA Guidelines Section 15126.2(a), (b), and (c) are met in Chapter 4, *Environmental Analysis*, under each resource discussion.

- PMPA to clarify jurisdictional land use authority, redesignate land uses, and balance commercial and maritime uses (PMPA Component)
- Amendments to the City's LCP, General Plan (City of National City 2012), Harbor District Specific Area Plan (HDSAP), Land Use Code (LUC), and Bicycle Master Plan that would include changes to jurisdictional boundaries; changes to subarea boundaries; and changes to land use, specific plan, and zone designations (City Program – Plan Amendments Component)

The project includes demolition of some existing landside uses, including concrete and asphalt parking lots and roadways, and hardscape; however, no facilities would be demolished. The demolition of the hardscape would be considered an irreversible change. Loss of habitat associated with construction of Segment 5 of the Bayshore Bikeway would also be considered an irreversible change. Other features of the proposed project—such as implementation of the Balanced Plan and GB Capital Component including construction of the hotels, restaurant, retail, and/or a combination of tourist-/visitor-serving commercial development, modular cabins, rail connector track and storage track, and marina expansion—would be considered irreversible for the near term given the commitment of resources, but all could be removed or modified once any of these features reached their maximum lifespan or it is determined in the future that other development would be desired.

Implementation of the proposed project would require a permanent commitment of non-renewable natural resources primarily from the direct consumption of fossil fuels. These fossil fuels would be consumed during both construction and operation in the form of diesel and gasoline used in construction equipment, commute vehicles, trucks, and boats. Electricity would also be consumed during construction and operation from power tools, electric equipment, and lighting, although not all of it would be from non-renewable sources. The portion of electricity generated from fossil fuels such as natural gas, however, would be irretrievable and irreversible. The materials that would be used during construction and operational activities would be unavailable for other uses.

As discussed within Chapter 4, *Environmental Analysis*, and Chapter 5, *Cumulative Impacts*, implementation of the proposed project would result in significant irreversible environmental changes related to aesthetics and visual resources, greenhouse gas emissions, noise, and transportation. These results are summarized below.

As discussed in Section 4.6, *Greenhouse Gas Emissions and Climate Change*, greenhouse gas emissions associated with the proposed project would be inconsistent with the numerical targets within the District's Climate Action Plan and the City's Climate Action Plan. Although this impact would be reduced with implementation of mitigation measures, because no plans, policies, and regulatory programs have been adopted to achieve the carbon neutrality goal set by Executive Order B-55-18, it cannot be stated with certainty that the project would result in emissions that would represent a fair share of the requisite reductions toward the statewide carbon neutrality goal, and these impacts would be significant and irreversible.

As discussed in Section 4.10, *Noise and Vibration*, noise associated with construction of the project would exceed adopted noise standards due to the project's proximity to noise-sensitive receivers. Noise associated with construction activities would remain significant and unavoidable because it may not be possible to fully reduce all construction noise levels to comply with the noise limits specified in the City's Municipal Code (Section 12.10.160). However, because construction noise is temporary, it would not be considered an irreversible condition. In addition, rail noise exposure at overnight accommodations on the GB Capital Component site would exceed the City's General Plan Noise Exposure standards due to rail noise and onsite operations of the proposed project that would potentially exceed the City's Municipal Code Noise standards at onsite sensitive receptors. Due to the uncertainty associated with implementing adequate noise control between the Pasha Rail Component and GB Capital Component, impacts would remain significant and unavoidable.

Employment associated with operation of the proposed project would not achieve a vehicle miles traveled (VMT) reduction of 15% below the 2050 Regional Average. Therefore, employment uses associated with the proposed project as well as the potential closure of Bay Marina Drive would have a significant VMT impact, as discussed in Section 4.13, *Transportation, Circulation, and Parking*. Implementation of mitigation measures would reduce employment-based VMT generated during project operations. However, despite the implementation of these measures, the employment-based VMT generated by the proposed project and the closure of Bay Marina Drive would not be reduced below the applicable threshold. Therefore, operations-related transportation impacts would be significant and irreversible.

6.3 Growth-Inducing Impacts

State CEQA Guidelines Section 15126.2(e) requires that an EIR discuss the ways in which a proposed project could directly or indirectly foster economic development, population growth, or additional housing, and how that growth would affect the surrounding environment. Direct growth inducement would result if a project, for example, involved construction of new housing. Indirect growth might occur if a project were to establish substantial new permanent employment opportunities that would stimulate the need for additional housing, utilities, and public services.

Similarly, a project would indirectly induce growth if it would remove an obstacle to additional development, such as removing a constraint on a required public service or utility. A project proposing to expand water supply capabilities in an area where limited water supply has historically restrained growth would be considered growth-inducing.

This section discusses the characteristics and consequences of the proposed project that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. However, the following analysis does not assume that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment (State CEQA Guidelines 15126.2(e)). Rather, Chapter 4, *Environmental Analysis*, and Chapter 5, *Cumulative Analysis,* discuss the adverse impacts on resources, including any impacts that would be caused by cumulative conditions.

6.3.1 Foster Economic Growth

One criterion by which growth inducement can be measured involves economic growth. Economic growth considerations range from a demand for temporary and permanent employees, to an

increase in the overall revenue base for an area, to a new demand for supporting services such as retail, restaurant, and entertainment uses.

The proposed project would foster growth through three primary means: (1) the creation of new jobs, (2) an increase in business and tax revenues, and (3) an increase in the demand for supporting services.

6.3.1.1 Economic Growth through New Jobs

In the short term, the proposed project would induce economic growth by introducing temporary employment opportunities associated with construction of the project. It is assumed that the proposed project would result in up to approximately 395 temporary jobs. In addition to the direct short-term employment, these workers would likely patronize businesses in the project area and in the larger San Diego region, resulting in indirect economic benefits as well.

In the long term, operation of the project would induce economic growth by creating long-term employment opportunities. The proposed project would result in permanent employment in hospitality, retail, and other commercial businesses. The projected number of jobs in the overall area of influence is approximately 1.9 million by 2050 (SANDAG 2015).

As such, the proposed project would create new employment opportunities and ultimately would contribute to economic growth of the San Diego region.

6.3.1.2 Economic Growth through Increased Business and Tax Revenues

Implementation of the proposed project would result in additional hotel and marina uses that would spur economic growth in the form of increased revenue and a demand for related services (e.g., hotel rooms, restaurants, and retail) in the National City bayfront area. As such, project implementation would result in an increase in business and local sales tax. This increase in yearly revenue could spur additional growth in other areas because it would provide the District and City with additional funds on a yearly basis. Therefore, the project would stimulate additional economic growth indirectly as a result of the increase in demand for related services.

6.3.2 Foster Population Growth

The proposed project would not involve the development of housing. The project would, however, result in the creation of both temporary and permanent employment opportunities to support the construction and operation of the project. However, although the additional permanent jobs would have a positive impact on the economy, the additional permanent employment created by the project would not increase National City's population because future employees (and their families) are anticipated to be drawn from existing residents of the city and surrounding area. Therefore, construction and operation of the proposed project would have little to no effect on the inducement of population growth.

6.3.3 Construction of Additional Housing

The proposed project does not call for the construction of housing, which is prohibited within the District's jurisdiction under the Public Trust Doctrine, and would not increase National City's population in a manner that would necessitate the construction of additional housing. Although

construction of the project would provide for new permanent jobs, it may allow current residents to upgrade their existing housing. For these reasons, while the project would not result in the direct construction of additional housing, it may result in the indirect construction of housing. Therefore, the project may indirectly stimulate the construction of some housing due to the increase in permanent jobs.

6.3.4 Removal of Obstacles to Population Growth

A project would indirectly induce growth if it would remove a constraint on a required public service or utility. A project would also indirectly induce growth if it would establish a precedent-setting action (e.g., an innovation, a change in zoning, a general plan amendment approval). The proposed project would require both infrastructure upgrades, a PMPA, and amendments to City Planning documents, which could result in the removal of obstacles to growth, as described below.

6.3.4.1 Infrastructure Upgrades

The proposed project would not extend infrastructure such as roadways, water, gas, or electricity into previously undeveloped areas because the project site is highly urbanized. Existing roadways, water, and wastewater services already serve the project site and surrounding area. Upgrades to the existing utility infrastructure would be required, including increasing the size of the 12-inch polyvinyl chloride (PVC) pipelines to 16-inch PVC pipelines in order to meet fire flow demands. This would be done to accommodate the additional demand of the hotel visitors and employees and would not be expanded into previously undeveloped areas in a manner that would allow for the construction of additional housing or other development. Any expansion or modification of existing infrastructure would be completed solely to serve the proposed project and would not have implications for other properties in the surrounding area. As such, the project would not remove obstacles to growth.

6.3.4.2 Port Master Plan Amendment

The project site is currently designated in the PMP for Marine-Related Industrial, Marine Terminal, Commercial Recreation, Marina, Park/Plaza, and Street land and water uses (District 2020a). As part of the proposed project, a PMPA is proposed to incorporate the Balanced Plan, Pasha Road Closures Component, GB Capital Component, Pasha Rail Improvement Component, and a portion of the Bayshore Bikeway Component into the PMP, and would change the associated PMP maps, text, and tables to include the above land/water use changes associated with the project components (see Figure 3-1). The PMPA would include the following.

- Change Tidelands Avenue between Bay Marina Drive and 32nd Street, as well as West 28th Street between Quay Avenue and Tidelands Avenue, from a Street to Marine-Related Industrial land use designation.
- Change the PMP maps and tables to reflect the revised land and water use designations associated with the Balanced Plan.
- Revise the Circulation/Navigation Element of the PMP to identify proposed Segment 5 of the Bayshore Bikeway within District jurisdiction.
- Modify and add public access corridor locations and widths for north–south and east–west public access corridors.

With changes to the associated PMP maps, text, and tables to include the land/water use changes associated with the project components, an increase in the number of visitors and number of hotel rooms over what is currently anticipated in the PMP would occur. Therefore, it is reasonable to conclude that the PMPA would indirectly result in growth-inducing impacts related to the expansion of visitor-serving uses.

6.3.4.3 City Program – Plan Amendments Component

Implementation of the City Program – Development Component and most of the Bayshore Bikeway Component would require amendments to the City's General Plan, LCP, HDSAP, LUC, and Bicycle Master Plan. In addition, with the exception of the property owned by the California Department of Transportation, the area of the GB Capital Component east of the mean high tide line, owned by the District, and not currently within the PMP would be removed in the City Planning documents (City's General Plan, LCP, HDSAP, LUC, and Bicycle Master Plan) and added to the PMP. Proposed revisions to the City Planning documents include:

- Removing approximately 12.7 acres of the Balanced Plan, located mostly on the GB Capital Component site east of the mean high tide line and owned in fee by the District, from the City's General Plan, LCP, HDSAP, and LUC to reflect changes in land use and jurisdictional authority
- Incorporating seven parcels north of Bay Marina Drive and adjacent rights-of-way into the HDSAP
- Amending the Bicycle Master Plan to reflect the realignment of the Bayshore Bikeway

Future development within the City's jurisdiction may require Coastal Development Permits and other development permits such as planned development permits, conditional use permits, subdivision/parcel maps, street vacations, and other discretionary or ministerial entitlements to implement the project.

With land use changes associated with the City's General Plan, LCP, HDSAP, LUC, and Bicycle Master Plan, the project would result in an increase in the number of visitors and number of hotel rooms over what is currently anticipated in the City's Planning documents. Therefore, it is reasonable to conclude that the City's Planning document amendments (City's General Plan, HDSAP, LUC, and LCP) would indirectly result in growth-inducing impacts related to the expansion of visitor-serving uses.

6.3.5 Summary of Growth-Inducing Impacts

The proposed project is expected to foster economic growth via the creation of new employment, contribute to economic growth of the San Diego region, and lead to an indirect increase in demand for related services. However, the proposed project would not directly induce population growth or directly cause the construction of new housing in the region. Overall, the project would have a modest but measurable effect on regional growth.[2]

[2] Note that the potentially significant environmental effects of the project are analyzed in Chapters 4 and 5 of this EIR.

6.4 Effects Not Found to Be Significant

Early in the environmental scoping process it was determined that effects related to agriculture and forestry resources, geology and soils, and mineral resources would not be significant (please refer to the Notice of Preparation/Initial Study Checklist in Appendix A). Although the Initial Study/ Environmental Checklist determined that effects related to tribal cultural resources would not be significant, a tribal cultural resources analysis is included in Section 4.4, *Cultural Resources, Tribal Cultural Resources, and Paleontological Resources*, of the EIR in response to District discussions with the Sycuan Band of the Kumeyaay Nation.

This section provides a discussion of individual thresholds for resource sections that are included in the EIR, but were found to be insignificant in the Initial Study/Environmental Checklist. In accordance with State CEQA Guidelines Section 15128, a brief explanation indicating the reasons that the effects on these resources would not be significant is provided under each subheading below.

6.4.1 Aesthetics and Visual Resources

6.4.1.1 Threshold (b) – Scenic Resources

The project site is in an area that is urban and developed with recreational, commercial, and industrial land uses. There are no scenic rock outcroppings on the project site. There are trees in Pepper Park and on the perimeter of the City Program – Development Component portion of the site, but none are designated as scenic resources. Moreover, the proposed project would expand Pepper Park and add trees within the expansion area and within other project areas.

Although no historic buildings are presently within the project site, the proposed project would potentially relocate the City-owned Granger Hall, a designated historical building, to Pepper Park as part of the Balanced Plan.

Views of the project site would not be available from any of the six designated scenic highways in San Diego County (Caltrans 2019). The nearest designated scenic highway to the project site is State Route (SR-) 75, which travels in a north/south direction from Coronado to Imperial Beach. SR-75 is more than 3 miles west of the project site, across San Diego Bay. At this distance, some brief views of the National City Bayfront may be available on a clear day; however, no clear views of the project site are available from SR-75. The existing Granger Hall site is approximately 2 miles east of the National City Bayfront and is not visible from SR-75. Other designated scenic highways, such as portions of SR-52, SR-78, SR-94, SR-125, and SR-163, are several miles from the project site and do not have views of the project site. Impacts on scenic resources along a scenic highway would not occur. Therefore, the proposed project would have a less-than-significant impact on scenic resources.

6.4.2 Agriculture and Forestry Resources

6.4.2.1 Threshold (a) – Important Farmland

The project site is in an urbanized area that does not support any agricultural uses. The California Department of Conservation's Farmland Mapping and Monitoring Program designates areas of

prime soils and soils of statewide importance based on soil characteristics and agricultural use. The project site is classified as "urban and built-up land," which does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency (California Department of Conservation 2018). As such, there is no potential for any actions to convert Farmland resources to a nonagricultural use and no impacts would occur.

6.4.2.2 Threshold (b) – Williamson Act Contracts or Agricultural Zoning

The project site is not zoned for agricultural use, and there is no Williamson Act contract for the site (California Department of Conservation 2013). Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and no impacts related to agricultural resources would occur.

6.4.2.3 Threshold (c) – Conflict with Forest Land Zoning

The project site is in an urbanized area that does not support any forestry uses. No land that has been zoned as forest land or timberland exists within the boundaries of the project site. Therefore, implementation of the proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production; as such, no impact would occur.

6.4.2.4 Threshold (d) – Conversion of Forest Land to Non-Forest Use

The project site does not contain any forest lands as defined in Public Resources Code Section 12220(g). California's Forests and Rangelands: 2010 Assessment, completed as part of the California Department of Forestry and Fire Protection Fire Resource Assessment Program, provides an assessment of the state's inventory of forest land and identifies lands within the project site as Urban (CAL FIRE 2010). Therefore, the proposed project would not result in the loss or conversion of forest land to a non-forest use. In addition, the project is not in the vicinity of offsite forest resources. No impact would occur.

6.4.2.5 Threshold (e) – Conversion of Farmland to Non-Agricultural Use

No agricultural uses, forest land, or timberland exist in the vicinity of the project site. The project would not result in conversion of Important Farmland or other agricultural resources to a non-agricultural use because the project site and surrounding area are developed land that is used for commercial and recreational purposes. Therefore, the proposed project would not involve a change to the existing environment that, because of its location or nature, would result in the conversion of Farmland to non-agricultural use or forest land to non-forest use, and no impact would occur.

6.4.3 Biological Resources

6.4.3.1 Threshold (d) – Wildlife Corridors/Native Wildlife Nursery Sites

The project site consists primarily of developed land and does not contain wildlife corridors or native wildlife nursery sites. The proposed project would not interfere with movement of wildlife or affect wildlife corridors. The building height(s) of the hotel(s) has the potential to affect migratory birds and the Pacific Flyway but, given that the project is being proposed in a heavily developed

area, migrating birds would navigate around the structure(s) as they do around other buildings in downtown. In addition, the project would not be within the boundaries of a native wildlife nursery and would not otherwise interfere with the use of native wildlife nursery sites. Therefore, impacts would be less than significant.

6.4.4 Cultural Resources, Tribal Cultural Resources, and Paleontological Resources

6.4.4.1 Threshold (d) – Human Remains

The proposed project is not a formal cemetery and is not near a formal cemetery. The proposed project and surrounding area are either fully developed or in active waters, and there is no record of human remains being identified during development of the area. The site is not known to be on a burial ground. For these reasons, the potential for human remains to be present at the project site is extremely low. However, if human remains are discovered, State Health and Safety Code Section 7050.5 requires that further disturbance and activities will cease in any area suspected to overlie remains and the county coroner will be contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission, who will then notify the most likely descendant. Further provisions of Public Resources Code Section 5097.98 are to be followed as applicable. Therefore, through compliance with existing regulations, construction and operation of the proposed project would not disturb any human remains, including those interred outside of formal cemeteries. As such, impacts would be less than significant.

6.4.5 Geology and Soils

6.4.5.1 Threshold (a) – Exposure of People or Structures to Potential Substantial Adverse Effects

1. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault*

The proposed project would not expose people or structures to potential substantial adverse effects from the rupture of a known earthquake fault, because no active faults are identified within the project site according to the California Geological Survey (California Department of Conservation 2010). Because there are no faults within the project site and ground disturbance activities associated with the proposed project are not likely to influence the potential for fault rupturing, construction and operation of the project would not exacerbate existing fault conditions.

2. *Strong seismic ground shaking*

The project site is in an area susceptible to seismic ground shaking. The closest fault line to the project site, the Rose Canyon fault zone, is approximately 0.45 mile west, in San Diego Bay (California Department of Conservation 2010). The Elsinore fault is approximately 40 miles to the northeast. Additionally, the project site is in Seismic Zone 4, which is a designation used to denote the areas with the highest risk to earthquake ground motion (California Seismic Safety Commission 2005).

The project site is in a medium-low Probabilistic Peak Ground Acceleration Area, which correlates to how hard the earth shakes in a given area (City of National City 2011). The project site is underlain by Soft Soil types, categorized by the National Earthquake Hazards Reduction Program as soils that may amplify the ground-shaking effects of earthquakes. Consequently, a seismic event within the Rose Canyon fault zone could cause substantial ground shaking on the project site; however, design and construction of the proposed project would comply with all seismic-safety development requirements, including Title 24 standards of the current California Building Code. More importantly for purposes of CEQA, the proposed project would not include any characteristics that might exacerbate the potential for strong seismic ground shaking. As such, less-than-significant impacts from the project related to its potential to exacerbate strong seismic ground shaking in the area would occur.

3. Seismic-related ground failure, including liquefaction

According to the U.S. Department of Agriculture Web Soil Survey, the project site is underlain by three types of soils: Huerhuero-Urban land complex, Made land, and Tidal flats. Tidal flats are hydric soils, which are soils that are saturated or have wetland characteristics, and can increase the potential of liquefaction. The Tidal flats are primarily associated with the Sweetwater Marsh Unit and only occur on the eastern border of the project site directly adjacent to the marsh, where the Bayshore Bikeway Component is proposed (USDA 2018). The project site is mostly underlain by either Made land (fill) or Huerhuero-Urban land complex, which have a low liquefaction risk. Moreover, design and construction of the proposed project would comply with all seismic-safety development requirements, including Title 24 standards of the current California Building Code. Because the project would be engineered to eliminate the low liquefaction hazard and would not have the potential to exacerbate the potential for liquefaction to occur, less-than-significant impacts associated with liquefaction or other seismic-related ground failure would occur.

4. Landslides.

Landslide risk is determined by steep slopes that have 25% or greater incline, soil type, and soil-slip susceptibility, as defined by the U.S. Geological Survey. The northeastern portion of Parcel B6 (of the Balanced Plan) slopes toward the San Diego Bay National Wildlife Refuge and Sweetwater Marsh Unit; however, the sloped area is part of the 200-foot setback from the refuge boundary, so no buildings would be located there. Route 3 of the Bayshore Bikeway Component is proposed to be located in this sloped area; however, it would be sited in locations that do not exceed a 25% slope. Therefore, impacts related to landslides are not anticipated.

6.4.5.2 Threshold (b) – Substantial Soil Erosion or Loss of Topsoil

Implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil. Erosion is a condition that could adversely affect development on any site. Construction activities could exacerbate erosion conditions by exposing soil and adding water to the soil, either from irrigation or runoff from new impervious surfaces. The General Construction Permit, which was adopted by the State Water Resources Control Board as Water Quality Order 2009-0009-DWQ as amended by Order 2010-0014-DWQ, and Order 2012-006-DWQ, is required for soil disturbance activities that would be greater than 1 acre. It is anticipated that all components of the proposed project would involve construction activities with soil disturbance over 1 acre; therefore, each would be subject to the General Construction Permit. As such, each project component with soil disturbance over 1 acre is required to develop and implement a Stormwater Pollution Prevention

Plan (SWPPP). The SWPPP will include best management practices (BMPs), such as sediment and erosion control measures, to prevent pollutants from leaving the sites that would be employed during construction. Furthermore, the project components would need to comply with the City's grading ordinance.

In addition, consistent with the District's Jurisdictional Runoff Management Program (pursuant to State Water Resources Control Board Order No. R9-2013-0001, as amended by Orders No. R9-2015-0001 and R9-2015-0100 [NPDES Permit #CAS0109266, Municipal Permit]), the components of the proposed project that are within District jurisdiction would be designed with BMPs consistent with the District's *BMP Design Manual*, which requires the use of low-impact development BMPs, as well as source control and treatment control BMPs (District 2020b). Future development associated with the City Program (Development and Plan Amendments) Components would be designed with BMPs consistent with the City's Jurisdictional Runoff Management Program and the City's *Storm Water Best Management Practice (BMP) Manual*, which requires the use of low-impact development BMPs, as well as source control and treatment control BMPs (City of National City 2019). Therefore, both construction and operational impacts related to soil erosion or loss of topsoil would be less than significant.

6.4.5.3 Threshold (c) – Soil Stability

Bay deposits that underlie the project site could be unstable because of their liquefaction potential. As discussed under Section 6.4.5.1, item 4, the project site does not contain slopes exceeding a 25% grade and they would not be susceptible to on- or offsite landslides. The project site is mostly underlain by either Made land (fill) or Huerhuero-Urban land complex, which have a low liquefaction risk. Moreover, design and construction of the proposed project would comply with all seismic-safety development requirements, including Title 24 standards of the current California Building Code, and the City Municipal Code, Section 15.70 (grading ordinance) (City of National City 2018). Because the project would be engineered to eliminate the low liquefaction hazard and would not have the potential to exacerbate the potential for liquefaction to occur, no impact associated with liquefaction or other seismic-related ground failure would occur. Due to these onsite conditions and compliance with the applicable regulations, impacts would be less than significant because the proposed project would not exacerbate existing unstable conditions.

6.4.5.4 Threshold (d) – Expansive Soil

Underlying soils found on site are partially composed of clays and, as such, could be subject to expansion. Huerhuero-Urban land complex (2 to 9% slope) has a high shrink-swell behavior, Made land has variable shrink-swell behavior, and Tidal flats have a high shrink-swell behavior (USDA 1973). Should any soil failure occur, risks to life or property associated with the proposed project may increase due to the construction of new structures, which would increase the number of people within the project site. Construction of the proposed project would be subject to applicable ordinances of the current California Building Code (California Code of Regulations Title 24), and expansive soils would be removed and replaced with engineered soil. Therefore, construction of the proposed project would not result in substantial risks to life or property from being located on expansive soils. Impacts would be less than significant.

6.4.5.5 Threshold (e) – Septic Tanks or Alternative Wastewater Disposal Systems

No septic tanks or alternative wastewater disposal systems are proposed. Therefore, there would be no impact associated with the soils on site being incapable of supporting a septic tank or wastewater disposal system.

6.4.6 Hazards and Hazardous Materials

6.4.6.1 Threshold (a) – Hazard to Public

The proposed project would be required to comply with federal, state, and local regulations for the routine transport, use, and disposal of any hazardous materials. These regulations include the Resource Conservation and Recovery Act, U.S. Department of Transportation Hazardous Materials Regulations (Code of Federal Regulations Title 49), California Health and Safety Code, and San Diego County Code, Title 6, Division 8, in combination with legally required construction BMPs implemented from the SWPPP (under the General Construction Permit). Moreover, the proposed project would only include common hazardous materials such as fuels, oils, and solvents in relatively small quantities associated with an increase in recreational marine vessels, movements associated with rail cars, and the construction and operation of commercial recreational uses such as the proposed hotels. Any accidental release of these materials due to spills or leaks would be cleaned up in the normal course of business, consistent with the above-mentioned regulations. Therefore, impacts associated with the potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials would be less than significant.

6.4.6.2 Threshold (e) – Airport Land Use Plan

The project site is not within the Airport Influence Area of any airport as defined by an Airport Land Use Compatibility Plan. The San Diego International Airport is more than 5 miles to the north of the project site. As such, implementation of the proposed project would not result in a safety hazard for people residing or working in the project area. Therefore, no impact would occur.

6.4.6.3 Threshold (f) – Private Airstrip

The proposed project site is not in the vicinity of a private airstrip. The closest non-public airstrip facilities to the project site are Naval Air Station (NAS) North Island and Naval Outlying Landing Field (NOLF) Imperial Beach. Both are approximately 5.5 miles from the project, with NAS North Island being closest to the northern end of the project area and NOLF Imperial Beach being closest to the southern end. As such, implementation of the proposed project would not result in a safety hazard for people residing or working in the project area. Therefore, no impact would occur.

6.4.6.4 Threshold (h) – Exposure to Fire

The project site is not within or adjacent to an area that has been identified as a wildland fire hazard area. According to the Very High Fire Hazard Severity Zone maps prepared by the California Department of Forestry and Fire Protection (2010), the proposed project is not within a High Fire Risk Area. Furthermore, the proposed project area is neither adjacent to nor intermixed with wildlands. Therefore, no impacts would occur.

6.4.7 Hydrology and Water Quality

6.4.7.1 Threshold (b) – Groundwater Supplies

The project site is within the Sweetwater Groundwater Basin. The primary recharge of the Sweetwater Valley Groundwater Basin is derived from seasonal runoff from precipitation in the upper reaches of the basin and from the Sweetwater Reservoir, including subsurface flows. Although the proposed project would increase the impervious surface area by developing some disturbed but undeveloped parcels, groundwater recharge would not be reduced by the proposed project. Groundwater beneath the project site is largely seawater. While the proposed project would replace a portion of the existing landscaped pervious surface that contributes to groundwater recharge, because the groundwater is mainly seawater infiltrating the soils under the project site, the project would not interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. The proposed project does not include any wells to pump groundwater. Impacts related to substantial depletion of groundwater supplies and recharge would be less than significant.

Short-term dewatering may be necessary during construction of proposed foundations below 10 feet. Discharge of groundwater into storm drains and receiving waters has the potential to significantly affect water quality. However, the proposed project would be required to comply with dewatering requirements imposed by the San Diego Regional Water Quality Control Board general waste discharge requirements for discharges from temporary groundwater extraction and similar waste discharges to San Diego Bay (Order No. R9-2015-0013). The proposed project would be required to maintain compliance with the effluent limitations applicable to the receiving water, as specified in Order No. R9-2015-0013 (refer to Table 8 of the order). The permit requires permittees to conduct monitoring of dewatering discharges and adhere to effluent and receiving water limitations contained within the permit so that water quality of surface waters is protected. Compliance with the applicable dewatering permit would further ensure that the impacts of these discharges would be less than significant.

Groundwater at the project site is not used for drinking water and consequently would not affect drinking water supply or quality. Impacts related to lowering the groundwater table and groundwater recharge would be less than significant.

6.4.7.2 Threshold (g) – Housing

No housing is proposed on the project site, and the project site is not on a 100-year floodplain. The Federal Emergency Management Agency delineates floodplains throughout the nation and presents the data on Flood Insurance Rate Maps, which illustrate that the proposed project site is outside of the 100-year floodplain (FEMA 2019). Therefore, no related impacts would occur.

6.4.7.3 Threshold (h) – 100-Year Flood Hazard

The proposed project site is not within a 100-year floodplain. Therefore, no impact would occur.

6.4.7.4 Threshold (i) – Expose People or Structures to Flooding/Dam Failure

Dam failures are rated as low-probability, high-loss events. Only two major dam failures have ever been recorded in San Diego County, both of which occurred in 1916 and were caused by a flood event (County of San Diego 2003). The project site is downstream of the Sweetwater Dam, which is approximately 6 miles to the east. The Sweetwater Dam was given a condition assessment of "fair" in 2017 by the California Natural Resources Agency, Department of Water Resources, Division of Safety of Dams (California Natural Resources Agency 2017). In the event of a dam failure or failure of the levees along Sweetwater Channel, portions of National City, including the project site, are at high risk of inundation (County of San Diego 2011). An emergency evacuation plan is in place for the Sweetwater Dam, however, and would be implemented in the unlikely event that the dam fails.

Construction and operation of the proposed project would develop some existing undeveloped parcels that would expose additional people and structures to risk of flooding from dam inundation in the event of dam failure. While new structures would be within areas prone to flooding, the proposed project would not exacerbate the flooding potential of the project site or the effects of flooding on the existing environment and would not impair dam safety. Impacts would be less than significant.

6.4.8 Land Use and Planning

6.4.8.1 Threshold (a) – Divide Community

The proposed project would not physically divide an established community. The project would reconfigure the existing mix of land uses in the National City Marina District and nearby City Program – Development Component sites to create a better connected area for commercial-recreational development while allowing improvements to the existing industrial areas by closing streets to allow for contiguous cargo storage areas. No impact would occur.

6.4.9 Mineral Resources

6.4.9.1 Threshold (a) – Known Mineral Resource

The project site is in an area characterized by marine-related industrial activities and visitor-serving commercial uses and does not contain any known mineral resources. No commercial mining operations exist on the project site or in the immediate vicinity. The project site and the surrounding area are not designated or zoned as land with the availability of mineral resources (City of San Diego 2008). The proposed project is within Mineral Resource Zone (MRZ)-1, which indicates that no significant mineral deposits are present or they are unlikely to exist (CGS 2017). In addition, the project site does not contain aggregate resources and is not in a mineral resource zone that contains important resources, as designated by the California Department of Conservation Division of Mines and Geology. Therefore, the proposed project would not result in a loss of known mineral resources. No impact would occur.

6.4.9.2 Threshold (b) – Important Mineral Resource

The PMP and City Planning Documents do not identify any mineral resources in the area or designated plans for mineral resource extraction. The project site and the surrounding area contain a limited amount of land suitable for the extraction of mineral resources. Salt production occurs approximately 2.6 miles south of the project site within the South San Diego Bay Unit of the San Diego National Wildlife Refuge. However, salt ponds are not within the project site and would not be affected by implementation of the proposed project (City of San Diego 2008). The project would not result in the loss of availability of a known mineral resource or regionally or locally important mineral resource recovery site, and no impact would occur.

6.4.10 Noise and Vibration

6.4.10.1 Threshold (e) – Airport Land Use Plan

The project site is not within the Airport Influence Area of any airport as defined by an Airport Land Use Compatibility Plan. The San Diego International Airport is more than 5 miles to the north of the project site. NAS North Island and NOLF Imperial Beach are both approximately 5.5 miles to the south of the project site. As a result, the project would not expose people residing or working within the project area to excessive airport noise levels. There would be no impact.

6.4.10.2 Threshold (f) – Private Airstrip

There are no private airstrips within 2 miles of the project site. The closest non-public air facilities to the project site are NAS North Island and NOLF Imperial Beach. Both are approximately 5.5 miles from the project, with NAS North Island being closest to the northern end of the project area and NOLF Imperial Beach being closest to the southern end. As a result, the project would not expose people residing or working within the project area to excessive private airstrip noise levels. There would be no impact.

6.4.11 Population and Housing

6.4.11.1 Threshold (b) – Displace Housing

The project site is currently developed with maritime industrial, commercial, and recreational uses, and no existing housing units or persons are located on the project site. No residential land uses are within the project site or surrounding area. The proposed project would not displace any housing units or necessitate the construction of housing units elsewhere. Therefore, there would be no impact.

6.4.11.2 Threshold (c) – Displace People

The project site is currently developed with maritime industrial, commercial, and recreational uses, and no existing housing units or persons are located on the project site. Implementation of the proposed project would not result in the displacement of people or necessitate the construction of replacement housing elsewhere. Therefore, no impact would occur.

6.4.12 Transportation, Circulation, and Parking

6.4.12.1 Threshold (c) – Air Traffic Patterns

The closest air facilities to the project site are NAS North Island, NOLF Imperial Beach, and San Diego International Airport, the closest of which is more than 5 miles from the project site. In addition, the project site is not within the Airport Influence Area of any airport as defined by an Airport Land Use Compatibility Plan or within the Airport Impact Zones for any of these airports (ALUC 2014, 2015, 2020). Furthermore, the proposed project would not involve the development of any structure within the Airport Influence Area that would extend into airspace or be tall enough to result in a change in air traffic patterns or a change in location. Therefore, the project would not result in a change in air traffic patterns or otherwise result in a safety risk. There would be no impacts.

Chapter 7
Alternatives to the Proposed Project

7.1 Overview

This chapter describes and analyzes a range of reasonable alternatives that could feasibly attain most of the basic project objectives while avoiding or substantially lessening one or more of the significant effects of the proposed project. The primary purpose of this chapter is to ensure that the comparative analysis provides sufficient detail to foster informed decision-making and public participation in the environmental process.

Four alternatives to the proposed project are analyzed in this chapter and discussed in terms of their merits relative to the project.

- Alternative 1 – No Project Alternative
- Alternative 2 – No Waterside Development in Sweetwater Channel Alternative
- Alternative 3 – GB Capital Component Phase 1 Only Alternative
- Alternative 4 – Reduced Development Intensity Alternative

Based on the analysis below, Alternative 4, the Reduced Development Intensity Alternative, would be the environmentally superior alternative.

7.2 Requirements for Alternatives Analysis

The State CEQA Guidelines require that an EIR present a range of reasonable alternatives to a project, or to the location of a project, that could feasibly attain a majority of the basic project objectives, but that would avoid or substantially lessen one or more significant environmental impacts of the project. The range of alternatives required in an EIR is governed by a "rule of reason" that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice. An EIR need not consider every conceivable alternative to a project. Alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the basic project objectives, are not feasible, or do not avoid or substantially lessen any significant environmental effects (State CEQA Guidelines, Section 15126.6(c)).

In addition to the requirements described above, CEQA requires the evaluation of a No Project Alternative, which analyzes the environmental effects that would occur if the project did not proceed (State CEQA Guidelines Section 15126.6(e)). Moreover, the EIR is required to identify the environmentally superior alternative. If the environmentally superior alternative is the No Project Alternative, the EIR must also identify an environmentally superior alternative among the other alternatives (State CEQA Guidelines Section 15126.6(e)(2)).

7.3 Selection of Alternatives

In developing alternatives that meet the requirements of CEQA, the starting point is the project's objectives. The project includes the following objectives.

1. Further activate the project site by modifying the land uses and their configurations to foster the development of high-quality commercial and recreational uses to maximize employment opportunities, maximize recreational opportunities for visitors, maximize economic development opportunities, and improve cargo and transportation efficiencies of maritime industrial uses associated with operations at the National City Marine Terminal (NCMT).
2. Reconfigure maritime and commercial uses to balance the anticipated future market demands for those uses, while also increasing public access on the project site.
3. Implement cohesive commercial development that is designed to enhance enjoyment of the National City Marina District and surrounding city area, contribute to the area's economic vitality, and generate economic revenue for the City including through increased Transient Occupancy Tax.
4. Increase park space and recreational opportunities to enhance the waterfront experience for all visitors and maximize opportunities to attract tourism to the city.
5. Reduce unnecessary train movements and reduce the required effort associated with building daily trains by improving near-terminal rail storage capacity and creating a more direct connection between the BNSF Railway National City Yard and the NCMT.
6. Offset the loss of existing land used for maritime operations, as proposed in the Balanced Plan, by closing internal District streets (i.e., Tidelands Avenue and West 28th Street) adjacent to existing maritime operations to create contiguous space for maritime operations and configuring cargo operations at and adjacent to the NCMT to create cargo-handling efficiencies to reduce cargo movements.
7. Incorporate District properties into the PMP that are not currently regulated by the PMP to ensure consistency with the California Coastal Act, Public Trust Doctrine, and Port Act.
8. Be consistent with the City's environmental policies and the District's Climate Action Plan (CAP), Clean Air Program, and Jurisdictional Runoff Management Program to ensure that the proposed project does not adversely affect the District's or City's ability to attain their respective long-range environmental and sustainability goals.
9. Expand aquaculture potential on District tidelands.
10. Incorporate a land use pattern for the National City Marina District into the PMP that establishes habitat buffers and implements operational features to avoid land use and operational inconsistencies between commercial, recreational, open space, and maritime uses.
11. Integrate National City art, culture, and history into the development of the proposed project.
12. Increase the connectivity of the project area to the surrounding area and facilitate increased pedestrian activity and enjoyment of San Diego Bay for visitors.

CEQA also requires that alternatives be feasible. *Feasible* is defined in CEQA as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors" (Public Resources Code Section

21061.1). The State CEQA Guidelines indicate that factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, other plans or regulatory limitations, and jurisdictional boundaries and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (State CEQA Guidelines Section 15126.6).

Finally, the alternatives should also avoid or substantially lessen one or more significant environmental impact that would occur under the project. Table 7-1 summarizes the project's significant impacts, which are listed here to focus on the issue areas where one or more alternatives may reduce an identified significant impact that would occur if the project is implemented.

Table 7-1. Summary of Significant Impacts of the Proposed Project

Resource Impact	Significant and Unavoidable	Less than Significant with Mitigation
Section 4.1, *Aesthetics and Visual Resources*		
Impact-AES-1: Obstructed Views Within a Scenic Vista Area During Project Construction (GB Capital Component)		X
Impact-AES-2: Inaccessibility of a Vista Area During Project Construction During Project Construction (GB Capital Component)		X
Impact AES-3: Reduction in Availability of Existing Views (GB Capital Component)		X
Impact-AES-4: Detrimental Change to Pepper Park from the Relocation of Granger Hall (Pepper Park Expansion of Balanced Plan)		X
Impact-AES-5: Development of the GB Capital Component Would Potentially Affect Visual character Within the Pier 32 Marina (GB Capital Component)		X
Impact-AES-6: Reduction in Nighttime Views Due to Additional Lighting (GB Capital Component)		X
Section 4.2, *Air Quality and Health Risk*		
Impact-AQ-1: New Land Use Designations Not Accounted for in the RAQS and SIP (All Project Components)		X
Impact-AQ-2: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Construction (All Components)		X
Impact-AQ-3: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Operation (GB Capital Component, City Program Component, and Balanced Plan)		X
Impact-AQ-4: Health Effects During Construction (All Project Components)		X
Section 4.3, *Biological Resources*		
Impact-BIO-1: Impacts on Estuary Seablite During Construction (Bayshore Bikeway Component Route 1 or Route 3)		X
Impact-BIO-2**:** Negative Effects on Salt Marsh Endemic Special-Status Wildlife Habitats (Bayshore Bikeway Component Route 1)		X
Impact-BIO-3: Impacts on Nesting Special-Status Salt Marsh Avian Species (GB Capital Component and Bayshore Bikeway Component Routes 1 and 3)		X

Resource Impact	Significant and Unavoidable	Less than Significant with Mitigation
Impact-BIO-4: Impacts on Nesting Osprey (Pepper Park Expansion, Pasha Rail Improvement Component, and Roadway Configuration in Balanced Plan)		X
Impact-BIO-5: Potential Disturbance or Destruction of Nests Protected by the Migratory Bird Treaty Act and CFGC (Pepper Park Expansion and Roadway Configuration in Balanced Plan, GB Capital Component, and Bayshore Bikeway Component Routes 1 and 3)		X
Impact-BIO-6: Bat Roost Site Direct Impacts (GB Capital Component, and Bayshore Bikeway Component Route 1 and Route 3)		X
Impact-BIO-7: Potential Disruption of Fishes, Green Sea Turtle, and Marine Mammals During Pile Driving Activities (GB Capital Component)		X
Impact-BIO-8: Potential Trampling of Sensitive Vegetation and Special-Status Plant Species, Potential Behavior Modification for Special-Status Wildlife or Declines in Habitat Quality Through Invasion of Exotic Plants (Bayshore Bikeway Component Route 1)		X
Impact-BIO-9: Reflective Materials and Increased Bird Strikes (GB Capital Component and City Program – Development Component)		X
Impact-BIO-10: Disruption of Wildlife Behavior Due to Additional Lighting (GB Capital Component)		X
Impact-BIO-11: Potential Loss of Diegan Coastal Sage Scrub During Project Construction (GB Capital Component and Bayshore Bikeway Component Route 1 and Route 3)		X
Impact-BIO-12: Potential Loss of Coastal Salt Marsh During Project Construction (Bayshore Bikeway Component Route 1)		X
Impact-BIO-13: Potential Reduction in Eelgrass Habitat and Productivity During Construction (GB Capital Component)		X
Impact-BIO-14: Potential Loss of Eelgrass Habitat Due to Overwater Coverage or Shading Impacts During Operations (GB Capital Component)		X
Impact-BIO-15: Potential Loss of Eelgrass Habitat Due to Operation of Aquaculture Facilities (GB Capital Component)		X
Section 4.4, *Cultural Resources, Tribal Cultural Resources, and Paleontological Resources*		
Impact-CUL-1: Relocation of Granger Hall Has the Potential to Result in a Substantial Adverse Change in the Significance of a Historical Resource (Pepper Park Expansion of Balanced Plan)		X
Impact-CUL-2: Excavation Related to the Proposed Project Would Potentially Damage Significant Archaeological Resources (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component)		X
Impact-CUL-3**:** Excavation Related to the Proposed Project Would Potentially Damage Tribal Cultural Resources (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component)		X
Impact-CUL-4: Excavation Related to the Proposed Project Would Potentially Disturb Buried Paleontological Resources (City Program – Development Component, Bayshore Bikeway Component)		X

Resource Impact	Significant and Unavoidable	Less than Significant with Mitigation
Section 4.5, *Energy*		
Impact-EN-1: Potential Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources During Construction (Balanced Plan, Bayshore Bikeway Component, GB Capital Component, Pasha Rail Improvement, Pasha Road Closures Component, and City Program – Development Component)		X
Impact-EN-2: Potential Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources During Operation (Balanced Plan, GB Capital Component, and City Program – Development Component)		X
Impact-EN-3: Potential Inconsistency with Applicable Energy Use Reduction Plans (All Project Components)		X
Section 4.6, *Greenhouse Gas Emissions and Climate Change*		
Impact-GHG-1: Inconsistency with District and City Climate Action Plan Numerical Targets (All Project Components)	X	
Impact-GHG-2: Inconsistency with District Climate Action Plan and Only Partial Consistency with Statewide Greenhouse Gas Reduction Plans, Policies, and Regulatory Programs (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Bayshore Bikeway Component)		X
Impact-GHG-3: Inconsistency with City Climate Action Plan and Only Partial Consistency with Statewide Greenhouse Gas Reduction Plans, Policies, and Regulatory Programs (City Program – Development Component, a portion of the Bayshore Bikeway Component, and a portion of the GB Capital Component).		X
Section 4.7, *Hazards and Hazardous Materials*		
Impact-HAZ-1: Residual Soil Contamination (City Program – Development Component)		X
Impact-HAZ-2**:** Residual Soil Contamination (Pasha Road Closures Component)		X
Impact-HAZ-3: Conflict with Conditions of Regulatory Closure (City Program – Development Component)		X
Impact-HAZ-4: Inadequate Emergency Access from Temporary Road Closures During Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, City Program – Development Component)		X
Impact-HAZ-5**:** Inadequate Emergency Access from the Closure of Tidelands Avenue During Operation (Pasha Road Closures Component)		X
Impact-HAZ-6**:** Inadequate Emergency Access from the Closure of Bay Marina Drive to Thru Traffic (City Program – Development Component)		X
Impact-HAZ-7**:** Inadequate Emergency Access from Marina Way Realignment (Balanced Plan, GB Capital Component)		X
Section 4.8, *Hydrology and Water Quality*		
N/A	N/A	N/A
Section 4.9, *Land Use and Planning*		
Impact-LU-1: Permanent Inundation in the Near Term (Bayshore Bikeway Component)		X

Resource Impact	Significant and Unavoidable	Less than Significant with Mitigation
Impact-LU-2: Temporary Inundation for 2030 and 2050 (Balanced Plan, GB Capital Component)		X
Impact-LU-3: Temporary and/or Permanent Inundation for 2100 (Bayshore Bikeway Component, Pasha Road Closures Component, Balanced Plan, GB Capital Component)		X
Section 4.10, *Noise and Vibration*		
Impact-NOI-1: Exceedance of the City's Noise Ordinance During Project Construction (Balanced Plan, Bayshore Bikeway Component, City Program – Development Component, GB Capital Component, Pasha Road Closures Component)	X	
Impact-NOI-2: Exceedance of the City's General Plan Noise Exposure Standards Due to Traffic Noise at Onsite Visitor Accommodations (City Program – Development Component)		X
Impact-NOI-3: Exceedance of the City's General Plan Noise Exposure Standards Due to Rail Noise at Proposed Onsite Visitor Accommodations (GB Capital Component, Pasha Rail Improvement Component)		X
Impact-NOI-4: Potential Exceedance of the City's Municipal Code Noise Standards at Existing Offsite Sensitive Receptors Due to Onsite Operations (City Program – Development Component)		X
Impact-NOI-5: Potential Exceedance of the City's Municipal Code Noise Standards at Onsite Sensitive Receptors Due to Onsite Operations (GB Capital Component, Balanced Plan)	X	
Impact-NOI-6: Exceedance of Caltrans Guideline Criteria for Potential Building Damage During Project Construction (GB Capital Component)		X
Impact-NOI-7: Exceedance of Caltrans Guideline Criteria for Potential Human Annoyance During Project Construction (Bayshore Bikeway Component)		X
Section 4.11, *Population and Employment*		
N/A	N/A	N/A
Section 4.12, *Public Services and Recreation*		
N/A	N/A	N/A
Section 4.13, *Transportation, Circulation, and Parking*		
Impact-TRA-1: Generate Vehicle Miles Traveled in Exceedance of Employment-Based Thresholds During Project Operations (Phase 1 and Phase 2 of GB Capital Component, City Program – Development Component)	X	
Impact-TRA-2: Induced Travel and Increased Vehicle Miles Traveled from the Closure of Bay Marina Drive to Through Traffic at Marina Way (City Program – Development Component)	X	
Impact-TRA-3: Inadequate Emergency Access from Temporary Road Closures During Project Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component)		X

Resource Impact	Significant and Unavoidable	Less than Significant with Mitigation
Impact-TRA-4: Removal of Tsunami Evacuation Routes from the Closure of Bay Marina Drive to Through Traffic at Marina Way (City Program – Development Component)		X
Impact-TRA-5: Inadequate Emergency Access from the Closure of Tidelands Avenue During Operation (Pasha Road Closure Component)		X
Impact-TRA-6: Inadequate Emergency Access from the Closure of Bay Marina Drive (City Program – Development Component)		X
Impact-TRA-7: Inadequate Emergency Access from Marina Way Realignment (Balanced Plan)		X
Impact-TRA-8: Insufficient Parking During Project Construction (Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, Bayshore Bikeway Component, and City Program – Development Component)		X
Impact-TRA-9: Insufficient Parking for Terminal Employees During Operations (Pasha Road Closures Component)		X
Impact-TRA-10: Insufficient Parking for Pepper Park Expansion and Reconfiguration (Balanced Plan)		X
Section 4.14, Utilities and Service Systems		
Impact-UTIL-1: Insufficient Water Facilities Available to Serve the Proposed Project (Balanced Plan, GB Capital Component, and City Program – Development Component)		X
Impact-UTIL-2: Insufficient Pipeline Capacity to Meet the Fire Flow Demands Plus Maximum Day Demands (GB Capital Component, and City Program – Development Component)		X
Impact-UTIL-3**:** Insufficient Sewer Facilities to Convey Wastewater Generated by Future Development (Balanced Plan, GB Capital Component, and City Program – Development Component)		X
Impact-UTIL-4: Insufficient Stormwater Facilities to Convey Stormwater Generated by Future Development (Balanced Plan, GB Capital Component, and City Program – Development Component)		X
Impact-UTIL-5: Insufficient Electricity, Natural Gas, and Telecommunications Facilities to Serve the Project Components (Balanced Plan, GB Capital Component, City Program – Development Component)		X
Impact-UTIL-6: Insufficient Water Supplies Available to Serve the Proposed Project (Balanced Plan, GB Capital Component, and City Program – Development Component)		X

7.4 Alternatives Considered

Based on the criteria described in Section 7.3, *Selection of Alternatives*, in addition to evaluating the No Project Alternative scenario, four other alternatives were carried forward. The other alternatives that were considered, but rejected, included an Alternate Location Alternative, Alternative Maintenance Building and Yard Alternative, and a Reconfigured Recreational Resources Alternative.

7.4.1 Alternatives Considered but Rejected

7.4.1.1 Alternate Location Alternative

The proposed project would modify existing land use designations within the project area to provide for more commercial-recreational amenities and increase activation of the National City Bayfront. Besides the project site, possible locations suitable for the project that have a marina, park/plaza, and marine-related commercial development would require waterfront access and sufficient area. However, the availability of commercial waterfront property in the District's jurisdiction is limited for several reasons, namely that there are already existing lease agreements with tenants and the size or physical constraints of alternative sites, including the lack of marinas, would not allow implementation of the proposed project. Moreover, project proponents do not have a current lease or another agreement with the District for another property with adequate acreage or characteristics to accommodate the proposed project, which includes both landside and waterside development. Importantly, the objectives of the proposed project include enhancement of the National City Bayfront. If the project was relocated to another location somewhere around the Bay, the desired improvements to the National City Bayfront would not occur.

Therefore, because (1) it is unlikely that developing the project at other waterfront locations within the District's jurisdiction would reduce a significant impact, (2) the project proponents do not have leasing rights to any other sites, and (3) the central objectives of the project would not be fulfilled (i.e., enhancement of the National City Bayfront), no suitable alternative sites were identified and an Alternate Location Alternative was rejected from consideration.

7.4.1.2 Alternate Maintenance Building and Yard Alternative

This alternative considered relocation of the GB Capital Component's proposed maintenance building and yard from its currently proposed location at the northeastern end of the boat storage facility to the southwestern end of the boat storage facility as well as a reduction in size of the maintenance yard from 8,200 square feet to 7,000 square feet. This alternative was considered so the maintenance yard and building would be farther away from Paradise Marsh, the proposed bike routes, or other sensitive receptors. However, this alternative was rejected from further consideration because there is not enough space at the southwestern end of the proposed dry boat storage facility to accommodate a 4,000-square-foot maintenance facility and 7,000-square-foot yard.

7.4.1.3 Reconfigured Recreational Resources Alternative

This alternative considered larger expansions for Pepper Park by expanding farther into the first point of rest site (currently designated with a Marine Terminal land use) or by expanding into the existing entrance road to Pepper Park and increasing the size of Parcel P2. By expanding farther into the first point of rest site, Pepper Park could be increased to a total of 4.5 acres as opposed to the total 2.54-acre increase proposed under the project. This would require reducing the Marine Terminal uses by approximately 2.98 acres within the first point of rest area. Another option that was considered included expanding Pepper Park by 1 acre into the western side of the proposed new Road D1 (see Figure 3-5 for the location of this road) and also increasing Pepper Park by expanding Parcel P2 by an additional 3.5 acres.

This alternative also considered an additional bike route that would be on Cleveland Avenue from the Harbor Drive/Civic Center Drive intersection to Bay Marina Drive on the south, then travel west to Marina Way and to Bayshore Bikeway. This route would involve removal of the unused rail tracks in the middle of Cleveland Avenue and reuse of this area for the bike route.

This alternative would allow for increased recreational space while also relocating the bike route from being adjacent to Paradise Marsh. However, this alternative was rejected from further consideration because the first point of rest area, which has a Marine Terminal land use designation, is adjacent to a deep-water berth, a highly valued characteristic for maritime and vessel usage—both of which are priority coastal-dependent uses—and would further decrease maritime lands. In addition, because the proposed routes of the Bayshore Bikeway were identified through consultation with the San Diego Association of Governments (SANDAG), adjustments to this route considered in this alternative would not be viable. Siting Segment 5 of the Bayshore Bikeway in the middle of Cleveland Avenue was considered by SANDAG in 2006 as part of the *Bayshore Bikeway Plan*, but was ultimately dismissed from further consideration because "the narrower roadway width and the observed heavier vehicle traffic associated with adjacent businesses made it less desirable for developing the Class I Bayshore Bikeway route (SANDAG 2006)." Therefore, this alternative was rejected from further consideration.

7.4.2 Alternatives Selected for Analysis

Alternatives that were carried forward and analyzed would reduce the project's environmental impacts. Table 7-2 summarizes which project components were included for each of the four alternatives. As shown, with the exception of the No Project Alternative, all of the alternatives include each of the project components. However, some aspects of any given project component have been reduced or eliminated in order to reduce significant environmental effects of the reduced or eliminated component. For example, the No Waterside Development in Sweetwater Channel Alternative eliminates the elements of the GB Capital Component that would occur within Sweetwater Channel with the intent of avoiding or reducing the biological resource impacts associated with that aspect of the GB Capital Component. As such, that alternative would involve only reducing the total amount of development that would occur under the GB Capital Component, but the other components would be developed as described in Chapter 3, *Project Description*. As noted in the table, the No Project Alternative would not include any of the proposed project components.

Table 7-2. Summary of Alternative Buildout Scenarios by Each Element

Alternative	Balanced Plan	GB Capital Component	Pasha Rail Improvement Component	Pasha Road Closures Component	Bayshore Bikeway Component	City Program – Development Component	Port Master Plan Amendment Component	City Program – Plan Amendments Component
Alternative 1 – No Project	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alternative 2 – No Waterside Development in Sweetwater Channel	Same	Reduced	Same	Same	Same	Same	Same	Same
Alternative 3 – GB Capital Component Phase 1 Only	Same	Reduced	Same	Same	Same	Same	Same	Same
Alternative 4 – Reduced Development Intensity	Same	Reduced	Same	Same	Same	Reduced	Same	Same

N/A = not applicable (the No Project Alternative would not include any of the proposed project components); Same = same as the proposed project; Reduced = reduced compared to the proposed project

7.4.2.1 Alternative 1 – No Project Alternative

The No Project Alternative is required by CEQA to discuss and analyze potential impacts that would occur if the project was not implemented. Under the No Project Alternative, the site would operate in its current state, and the land use redesignations associated with the Balanced Plan would not occur. Tidelands Avenue between Bay Marina Drive on the north and 32nd Street on the south and West 28th Street between Quay Avenue and Tidelands Avenue would still function as roadways, and no Pasha rail improvements would occur. The existing Pier 32 Marina would not be expanded to include overnight accommodations, moorings, floating docks, piers, and aquaculture facilities. The alternate Segment 5 of the Bayshore Bikeway would not be developed, and the existing Segment 5 on Tidelands Avenue and 32nd Street would remain in place. The aquatic center would continue to operate under the existing conditions, and Pepper Park would not be expanded. In addition, the following would not be built: recreational vehicle (RV) resort, dry boat storage, and modular cabins; two-story building with restrooms, laundry facilities, and staff support services; maintenance building and yard; public access corridors; view corridors; or hotels (up to four). In addition, the City Program – Plan Amendments Component—which includes amendments to the City's General Plan, LCP, Harbor District Specific Area Plan, and Land Use Code for seven parcels north of Bay Marina Drive and development of a five-story hotel with retail and restaurant space—would not be implemented and future development would not occur.

7.4.2.2 Alternative 2 – No Waterside Development in Sweetwater Channel Alternative

Alternative 2 would include the land use redesignations associated with the Balanced Plan; most of the GB Capital Component, including construction and operation of an RV park, modular cabins, dry boat storage, and up to four hotels; the Pasha Rail Improvement Component, including construction and operation of a rail connector track and storage track; the Pasha Road Closures Component; the Bayshore Bikeway Component, including development of Segment 5 of the Bayshore Bikeway; and the City Program – Development Component, including construction and operation of hotel, restaurant, retail, and/or a combination of tourist-/visitor-serving commercial development north of Bay Marina Drive. However, under Alternative 2, the Pier 32 Marina would not be expanded into Sweetwater Channel, which would avoid potential impacts on eelgrass, an essential fish habitat. Alternative 2 would include the proposed waterside Pier 32 Marina improvements of constructing an approximately 580-foot-long and 8-foot-wide dock with two 80-foot-long and 5-foot-wide gangways within the existing Pier 32 Marina basin north of the jetty.

7.4.2.3 Alternative 3 – GB Capital Component Phase 1 Only Alternative

Alternative 3 would include the land use redesignations associated with the Balanced Plan; the Pasha Rail Improvement Component, including construction and operation of a rail connector track and storage track; the Pasha Road Closures Component; the Bayshore Bikeway Component, including development of Segment 5 of the Bayshore Bikeway; and the City Program – Development Component, including construction and operation of hotel, restaurant, retail, and/or a combination of tourist-/visitor-serving commercial development north of Bay Marina Drive. However, only Phase 1 of the GB Capital Component would be included.

The landside Phase 1 GB Capital Component would include the construction and operation of up to 135 sites at a proposed RV resort; approximately 40,000 square feet of dry boat storage; up to 60 modular cabins; an approximately 10,000-square-foot, two-story administration/recreation building adjacent to the existing Pier 32 Marina buildings; an approximately 4,000-square-foot, two-story building with restrooms, laundry facilities, and staff support services; an approximately 4,000-square-foot maintenance building and associated approximately 8,200-square-foot maintenance yard; a public access corridor; view corridors; and a pedestrian path and other approved recreational amenities generally east of Parcel B6 of the Balanced Plan area and west of Paradise Marsh. The GB Capital Component Phase 1 waterside component would add 20 moorings in Sweetwater Channel; an approximately 620-foot-long and 8-foot-wide floating dock that includes up to 30 fingers, which would accommodate up to 50 boats; and an approximately 580-foot-long and 8-foot-wide dock with two 80-foot-long and 5-foot-wide gangways. Phase 1 would also allocate an area for future development of infrastructure to support aquaculture.

Phase 2 of the GB Capital Component would be eliminated. Consequently, the following elements would not occur:

- Construction and operation of an up-to-three-story hotel with as many as 40 rooms generally on Parcel B1 of the Balanced Plan
- Construction and operation of an up-to-four-story building, including approximately 16,500 square feet of retail space and a hotel with up to 60 rooms on Parcel B6 of the Balanced Plan

- Construction and operation of an up-to-11-story hotel with up to 282 rooms on Parcel B3 of the Balanced Plan
- Construction and operation of an up-to-four-story hotel with up to 81 rooms on Parcel B3 of the Balanced Plan

7.4.2.4 Alternative 4 – Reduced Development Intensity Alternative

Under Alternative 4, the overall development intensity within the GB Capital Component would be reduced by approximately 50% by reducing the number of hotel rooms. Specifically, the height of the 11-story hotel and number of rooms proposed for that hotel would be reduced to six stories and 140 rooms; the three-story, 40-room hotel would be eliminated; and that area would continue in its current use as a small grassy area and putting green for Pier 32 Marina. The reduction in the size of the features would enable the expansion of the Central Promenade extending from the existing Marina Way alignment to the viewpoint at Pier 32 from a 24-foot width to a 30-foot width. Similarly, under this alternative, the height of the five-story hotel and number of hotel rooms proposed for the City Program – Development Component would be reduced to a three-story hotel with 75 rooms.

All other project components would be the same as under the project, including the land use redesignations associated with the Balanced Plan, a portion of the GB Capital Component (i.e., construction and operation of dry boat storage), the Pasha Rail Improvement Component (i.e., construction and operation of a rail connector track and storage track), the Pasha Road Closures Component, and one route of the Bayshore Bikeway Component (i.e., development of Segment 5 of the Bayshore Bikeway).

7.5 Analysis of Alternatives

This section discusses each of the project alternatives and determines whether each alternative would avoid or substantially reduce one or more of the significant impacts of the proposed project. This section also identifies any additional impacts resulting from the alternatives that would not result from the project and considers the alternatives' respective relationships to the project's basic objectives. A summary comparison of the impacts of the project and the alternatives under consideration is included as Table 7-3 at the end of this chapter. A summary comparison of the relationship of the project objectives for the project and the alternatives is included as Table 7-4 at the end of this chapter.

7.5.1 Analysis of Alternative 1 – No Project Alternative

7.5.1.1 Aesthetics and Visual Resources

The existing visual character of the site is defined by recreational facilities, surface parking, a marina, roadways, and paved areas. As part of the working waterfront, the National City Bayfront is characterized by wide-open storage areas sporadically interrupted by warehouses, railroad tracks, and the street network. The PMP identifies one designated vista area within the project site in the western portion of Pepper Park, facing southwest across Sweetwater Channel and toward San Diego Bay National Wildlife Refuge. Under Alternative 1, the existing site would remain as is, whereas the proposed project would have potentially significant but mitigable impacts related to visual access during construction and a reduction of existing views. The proposed project would also have a

significant but mitigable impact related to the relocation of Granger Hall to Pepper Park. Therefore, Alternative 1 would avoid significant impacts on aesthetics and visual resources that would occur with the proposed project; consequently, impacts would be reduced compared to the project.

7.5.1.2 Air Quality and Health Risk

Alternative 1 would not include any construction activities or operational changes that would result in additional air pollutant emissions and Alternative 1 would not include any changes to land uses that were assumed in the Regional Air Quality Strategy (RAQS) and State Implementation Plan (SIP). In contrast, the proposed project would have potentially significant but mitigable impacts related to the new land use designations and exceedance of criteria pollutant thresholds, and would add to health risk in the surrounding area. Therefore, air quality and health risk impacts under Alternative 1 would be reduced compared to the proposed project.

7.5.1.3 Biological Resources

The proposed project would have multiple significant but mitigable impacts on biological resources, including the potential to adversely affect special-status wildlife, disturb nesting birds, damage sensitive vegetation, and permanently remove habitat.

Under Alternative 1, loss of habitat resulting in potential take of Belding's savannah sparrow and habitat degradation would be avoided. In addition, no pile driving or construction activities associated with the project would occur that would disturb or destroy protected nests or disrupt or injure green sea turtles and marine mammals. Under this alternative, none of the proposed structures would be constructed, and the use of reflective materials would not increase bird strikes. Alternative 1 does not include waterside development and the loss of open water habitat and function, and therefore no reduction in eelgrass habitat would occur. Potential dust, erosion, and runoff associated with construction activities and operation of the Bayshore Bikeway, which could result in adverse effects on state or federally protected wetlands, would not occur. Therefore, biological resource impacts under Alternative 1 would be reduced compared to the project.

7.5.1.4 Cultural Resources, Tribal Cultural Resources, and Paleontological Resources

Under the proposed project, all impacts on cultural resources (i.e., potential relocation of Granger Hall and excavation in areas with potential archaeological resources, tribal cultural resources, and paleontological resources) would be less than significant after mitigation. In contrast, Alternative 1 would not relocate or otherwise alter any of the existing buildings on the project site and, therefore, would not affect any potentially historic resources. Consequently, Alternative 1 would result in substantially reduced impacts related to historic resources compared to the project. Alternative 1 would not result in any ground-disturbing activities and would not disturb potential prehistoric archaeological resources or paleontological resources that may exist on the project site. Although the project would mitigate any potential impacts on prehistoric archaeological resources or paleontological resources, Alternative 1 would have no potential to affect these cultural resources. Therefore, impacts on cultural resources occurring under Alternative 1 would be reduced compared to the project.

7.5.1.5 Energy

Energy impacts associated with the proposed project's construction and operation would occur prior to mitigation, but mitigation would reduce energy impacts to a less-than-significant level. Under Alternative 1, no construction or operational activities would occur, and energy demand would be lower than under the proposed project. Therefore, because energy demand would be lower, impacts under Alternative 1 would be reduced compared to the proposed project; however, the alternative would not incorporate any efficient energy features, in contrast to the proposed project.

7.5.1.6 Greenhouse Gas Emissions and Climate Change

Alternative 1 would not include any construction and operational activities that would result in additional greenhouse gas (GHG) emissions. While GHG emissions would generally be similar to existing conditions, Alternative 1 would not include any specific GHG reduction measures to reduce emissions from existing uses. Therefore, GHG emissions under Alternative 1 would be substantially reduced when compared to the proposed project, but the alternative would incorporate fewer clean technology improvements.

7.5.1.7 Hazards and Hazardous Materials

The proposed project would have the potential to encounter soil contamination and may have the potential to disrupt emergency access due to road closures. However, these potential impacts would be mitigated to a less-than-significant level.

Under Alternative 1, there would be no ground-disturbing activities associated with construction, and there would be no potential to encounter possible soil contamination or contaminated sediment at the project site. Although the proposed project would mitigate any potential impacts from encountering hazardous materials during construction and excavation activities to below a level of significance, Alternative 1 would have no potential to exacerbate an existing hazardous materials condition. In addition, Alternative 1 would not physically interfere with the implementation of an emergency access or response plan. Therefore, Alternative 1 would avoid hazards and hazardous materials impacts, and impacts would be reduced when compared to the project.

7.5.1.8 Hydrology and Water Quality

Due to existing regulations and District and City water quality programs, the proposed project would not result in any significant hydrology or water quality impacts. Similarly, under Alternative 1, no landside or waterside changes would occur at the existing project site. Therefore, no construction activities would occur that could violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Additionally, Alternative 1 would not substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion or siltation, increase the rate or amount of surface runoff in a manner that would result in flooding, or create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Furthermore, Alternative 1 would not involve any changes to the project site that risk release of pollutants due to project inundation in flood or tsunami zones, or conflict with or obstruct implementation of a water quality control plan or sustainable groundwater

management plan. Therefore, similar to under the proposed project, impacts related to hydrology and water quality under Alternative 1 would be less than significant.

7.5.1.9 Land Use and Planning

Alternative 1 would not modify existing land uses or increase development in the project area. However, because Alternative 1 would not involve a PMPA to incorporate District-owned lands into the PMP, Alternative 1 would be inconsistent with the Port Act and California Coastal Act. The Port Act grants the District police powers, including land use authority of granted lands to the District. Additionally, the Coastal Act requires that the California Coastal Commission—not the City—has coastal permitting jurisdiction over District-owned lands until such lands are incorporated into the PMP. As such, District-owned lands that are currently in the City's LCP need to be incorporated into the PMP for Port Act and California Coastal Act consistency. Therefore, Alternative 1 would result in a significant and unavoidable impact under land use and would result in greater impacts than those that would occur under the project.

7.5.1.10 Noise and Vibration

Alternative 1 would not result in any significant noise and vibration impacts and would result in reduced noise impacts compared to the proposed project. The project's significant and unavoidable impacts related to construction noise, rail noise exposure at the proposed RV sites at the GB Capital Component site, and operational noise from the proposed dry boat storage facility would not occur under Alternative 1. Furthermore, impacts related to traffic noise exposure at the City Program – Development Component, mechanical equipment noise, rail noise exposure at the proposed hotel at the GB Capital Component site, and noise levels from events at the proposed amphitheater at Pepper Park would not occur under Alternative 1. As such, Alternative 1 would entirely eliminate impacts related to noise and vibration identified for the project.

7.5.1.11 Population and Employment

Under Alternative 1, no impacts associated with substantial unplanned population growth in an area, either directly or indirectly, would occur because the project area would be served by existing roadways, water, wastewater, gas, and electrical infrastructure. Therefore, Alternative 1 would not directly or indirectly induce substantial population growth through extension of roads or other infrastructure in the surrounding area. Consequently, no impacts on population and employment would occur under Alternative 1.

Similarly, the proposed project would also not result in any significant population and employment related impacts. As such, Alternative 1's impact on population and employment would be similar compared to the project.

7.5.1.12 Public Services and Recreation

Under Alternative 1, no significant impacts associated with construction and operation of Pepper Park would occur. Moreover, Granger Hall would not be relocated, and the significant but mitigable impact on this historical resource would not occur. In contrast, the proposed project would result in significant impacts related to the expansion of Pepper Park and significant but mitigable impacts associated with the relocation of Granger Hall. Therefore, Alternative 1 would result in substantially reduced impacts related to public services and recreation when compared with the project.

7.5.1.13 Transportation, Circulation, and Parking

The proposed project would result in less-than-significant impacts related to conflicts with applicable programs, plans, ordinances, or policies addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities. However, the proposed project would result in significant and unavoidable impacts from the generation of vehicle miles traveled (VMT) in exceedance of employment-based thresholds during operations as well as the closure of Bay Marina Drive. All other potential impacts resulting from the proposed project, including inadequate emergency access during construction and an insufficient parking supply that could reduce public coastal access during construction and operation, would be reduced to less-than-significant levels after mitigation.

Alternative 1 would not construct additional landside or waterside uses on the project site and, therefore, would not result in traffic, circulation, or parking impacts. Similar to the proposed project, Alternative 1 would not result in significant impacts resulting from conflicts with applicable programs, plans, ordinances, or policies addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities. Neither the project's significant and unavoidable impacts related to employment-based VMT during operation as well as the closure of Bay Marina Drive, nor the significant but mitigable impacts resulting from the an insufficient supply of parking (construction and operation) or inadequate emergency access from temporarily closed roads during construction would occur under Alternative 1. Therefore, under Alternative 1, transportation, circulation, and parking impacts would be substantially reduced compared to the project.

7.5.1.14 Utilities and Service Systems

Alternative 1's demand for water; generation of wastewater treatment or stormwater drainage; electrical power, natural gas, or telecommunications facilities; and generation of solid waste would remain the same as under existing conditions. In contrast, the proposed project would result in impacts on utility facilities and water supply that would require the implementation of mitigation. As such, Alternative 1's impact on utilities and service systems would be substantially reduced compared to the project.

7.5.1.15 Relationship to Project Objectives and Summary of Impacts

Compared to the project, the No Project Alternative would avoid or substantially reduce impacts related to aesthetics and visual resources; air quality and health risk; biological resources; cultural resources, tribal cultural resources, and paleontological resources; energy; GHG emissions and climate change; hazards and hazardous materials; land use and planning; noise and vibration; population and employment; public services and recreation; traffic, circulation, and parking; and utilities and service systems. However, the No Project Alternative would not meet any of the project objectives as listed under Section 7.3, *Selection of Alternatives*.

7.5.2 Analysis of Alternative 2 – No Waterside Development in Sweetwater Channel Alternative

7.5.2.1 Aesthetics and Visual Resources

Aesthetic and visual resource impacts associated with proposed project construction and operation would occur prior to mitigation, and impacts associated with obstructed views along a publicly accessible walkway and reduction of existing views during construction would be less than significant after mitigation.

Development occurring under Alternative 2 would reduce the number of structures visible in Sweetwater Channel. The significant mitigable visual impact associated with relocating Granger Hall to Pepper Park would still occur under Alternative 2. Under Alternative 2, the GB Capital Component, including the construction and operation of structures, would still occur. The proposed waterside Pier 32 Marina improvements (constructing an approximately 580-foot-long and 8-foot-wide dock with two 80-foot-long and 5-foot-wide gangways within the existing Pier 32 Marina basin north of the jetty) would be implemented under Alternative 2, and would result in similar aesthetics and visual resources impacts during project construction. As such, impacts on aesthetics and visual quality under Alternative 2 would be similar to those of the project, which would be significant and mitigable.

7.5.2.2 Air Quality and Health Risk

Air quality impacts associated with proposed project construction and operation would occur prior to mitigation. Incorporation of mitigation would reduce operational impacts to below relevant thresholds, and impacts associated with new land use designations not accounted for in the RAQS and SIP, and emissions in excess of criteria pollutant thresholds that contribute to health effects during construction, would be less than significant.

Development under Alternative 2 would be the same as under the proposed project, except that the Pier 32 Marina would not be expanded into Sweetwater Channel. As a result, operation of waterside components in Sweetwater Channel would not contribute to the air pollutant emissions generated by construction and operation of the proposed project. All other components would be constructed and operated as proposed. Similar to the proposed project, this alternative would conflict with RAQS and SIP growth projections due to the change in land uses not reflected in current plans. Construction emissions under this alternative would likely exceed the thresholds for volatile organic compounds, nitrogen oxides, carbon monoxide, and particulate matter less than or equal to 10 or 2.5 microns in diameter, and impacts due to construction and operation would be similar to those of the proposed project and require the same mitigation measures identified in Section 4.2, *Air Quality and Health Risk*, to reduce or eliminate impacts. Overall, Alternative 2 air quality and health risk impacts would have slightly lower emissions. Therefore, air quality impacts associated with Alternative 2 would be similar to the proposed project.

7.5.2.3 Biological Resources

The proposed project would have multiple significant but mitigable impacts on biological resources, including the potential to adversely affect special-status vegetation and wildlife; disturb nesting

birds; damage sensitive vegetation; directly affect bat roost sites; potentially disrupt fishes, green sea turtles, and marine mammals during construction; and permanently remove habitat.

Under Alternative 2, no waterside development in Sweetwater Channel would occur, which would substantially reduce impacts on eelgrass habitat. Alternative 2 would also substantially reduce impacts on fishes, green sea turtle, and marine mammals because pile driving activities would not occur. All of the landside components would occur as proposed. Landside impacts would be reduced to less-than-significant levels with implementation of the same mitigation measures as identified in Section 4.3, *Biological Resources*. Therefore, impacts on landside biological resources under Alternative 2 would be less than significant, similar to those of the project. Given that no waterside development would be included, biological resource impacts under Alternative 2 would be slightly reduced compared to the project.

7.5.2.4 Cultural Resources, Tribal Cultural Resources, and Paleontological Resources

The potential exists for archaeological resources, tribal cultural resources, and paleontological resources to be located beneath the project site. Under the proposed project, all impacts on cultural resources (i.e., relocation of Granger Hall, and excavation in areas with potential archaeological resources and paleontological resources) would be less than significant after mitigation.

Alternative 2 excludes waterside development in Sweetwater Channel but the landside components would be the same, and construction activities would occur within the same locations as proposed under the project. As such, Alternative 2 would be required to adopt mitigation measures similar to those identified in Section 4.4, *Cultural Resources, Tribal Cultural Resources, and Paleontological Resources*, to avoid potential impacts related to an adverse change in the significance of a historical resource through the relocation of Granger Hall, and the discovery of cultural and paleontological resources. Therefore, impacts on cultural resources under Alternative 2 would be similar to those under the project.

7.5.2.5 Energy

Energy impacts associated with proposed project construction and operation would occur prior to mitigation, but the mitigation measures identified in Section 4.5, *Energy*, would reduce energy impacts to less-than-significant levels. Alternative 2 does not include the expansion of the Pier 32 Marina into Sweetwater Channel and would therefore reduce the potential for wasteful, inefficient, or unnecessary consumption of energy resources associated with the construction of new moorings, aquaculture, and docks. Energy impacts under Alternative 2 would be similar but reduced compared to the proposed project. Similar to those of the proposed project, energy impacts under Alternative 2 would be significant and require mitigation to reduce impacts to less-than-significant levels. Therefore, energy consumption would be lower, but energy impacts under Alternative 2 would be similar to those of the proposed project.

7.5.2.6 Greenhouse Gas Emissions and Climate Change

Alternative 2 would result in construction and operational emissions similar to those of the proposed project except for the removal of the Pier 32 Marina. Landside components and land use changes would be the same as under the proposed project. Under Alternative 2, development of the landside components would not meet the numerical efficiency targets in 2025 or 2050 and would

only partially comply with plans, policies, and regulatory programs outlined in applicable District and City CAP measures and applicable state reduction goals and plans, policies, or regulations (Assembly Bill 32 Scoping Plan Measures for 2020, Senate Bill 32 Scoping Plan Measures for 2030, and other applicable statewide measures), similar to the proposed project. Inconsistency with the District's and City's CAP and only partial consistency with statewide GHG reduction plans, policies, and regulatory programs would result in a significant and unavoidable impact and the same mitigation identified in Section 4.6, *Greenhouse Gas Emissions and Climate Change*, would be required to reduce or eliminate impacts. Removal of the Pier 32 marina and associated boating uses would reduce emissions related to the proposed project, but these emissions are minor compared to landside uses. Therefore, GHG impacts under Alternative 2 would be similar to those of the proposed project.

7.5.2.7 Hazards and Hazardous Materials

Hazards and hazardous materials impacts associated with proposed project construction and operation would occur prior to mitigation, but mitigation would reduce hazards impacts to less-than-significant levels. Under Alternative 2, ground-disturbing activities within the landside portion of the project site have the potential to encounter contaminated soil, as with the project. Because the intensity of construction activity within the landside portion of the project site would be the same as under the project, Alternative 2 would result in similar impacts on hazards and hazardous materials to those of the project. Similar to under the project, these impacts would be reduced to less-than-significant levels with implementation of the same mitigation measures identified in Section 4.7, *Hazards and Hazardous Materials*. Therefore, Alternative 2 would result in less-than-significant hazards and hazardous materials impacts, similar to the project.

7.5.2.8 Hydrology and Water Quality

Due to existing regulations and District and City water quality programs, the proposed project would not result in any significant hydrology or water quality impacts. Alternative 2 does not include the expansion of the Pier 32 Marina into Sweetwater Channel and would thus reduce the potential for short-term water quality impacts associated with the construction of new moorings, aquaculture, and docks. Hydrology and water quality impacts under Alternative 2 would be slightly reduced compared to the project; however, impacts under the proposed project would be less than significant. As such, similar to under the project, impacts related to hydrology and water quality under Alternative 2 would be less than significant.

7.5.2.9 Land Use and Planning

Alternative 2 would result in the same landside improvements as those proposed as part of the project, with the exception of waterside development in Sweetwater Channel. As such, project components under Alternative 2 would be consistent with plans, policies, and regulatory programs adopted for the purposes of avoiding or mitigating environmental effects. Alternative 2 would result in less-than-significant impacts, similar to the project.

7.5.2.10 Noise and Vibration

Alternative 2 would eliminate some noise and vibration associated with waterside construction, including pile driving within Sweetwater Channel. It would also eliminate the operational noise associated with use of these project elements. However, the project changes under this alternative

would be a large distance from the closest offsite noise-sensitive receptors and, therefore, would not change the predicted significant impacts at offsite locations. In addition, this alternative would not alter the impacts predicted at onsite noise-sensitive receptors (due to traffic, rail, and operational noise) during project operation. The project's significant and unavoidable impacts related to construction noise, rail noise exposure at the proposed RV sites at the GB Capital Component site, and operational noise from the proposed dry boat storage facility would all remain unchanged. Consequently, noise and vibration impacts would be the same under Alternative 2 and the proposed project.

7.5.2.11 Population and Employment

Alternative 2 does not include the expansion of the Pier 32 Marina into Sweetwater Channel. The elimination of waterside development in Sweetwater Channel would not result in any additional substantial reduction in employment. Therefore, similar to under the project, impacts related to population and employment under Alternative 2 would be less than significant.

7.5.2.12 Public Services and Recreation

Alternative 2 would result in similar demand for police service, fire service, school service, parks, and other public services as the project. Under this alternative, the Pepper Park expansion would still occur and, like the proposed project, would serve additional visitors during operations and would not result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable services ratios, response times, or other performance objectives for parks. Impacts related to public services and recreation under Alternative 2 would be similar to those of the proposed project.

7.5.2.13 Transportation, Circulation, and Parking

The proposed project would result in significant and unavoidable impacts from the generation of VMT in exceedance of employment-based thresholds during operations and induced travel and increased VMT from the closure of Bay Marina Drive. All other potential impacts resulting from the proposed project, including inadequate emergency access during construction, removal of tsunami evacuation routes from the closure of Bay Marina Drive, and an insufficient parking supply that could reduce public coastal access during construction and operation, would be reduced to less-than-significant levels after mitigation.

Alternative 2 would include development of all landside components of the proposed project but would eliminate the expansion of the Pier 32 Marina into Sweetwater Channel. As such, overall construction activities for Alternative 2 would generally be the same as under the proposed project and would still have the potential to result in significant impacts on emergency access. Additionally, Alternative 2 would result in significant impacts from insufficient parking during construction and insufficient parking for terminal employees during operations, which could lead to a decrease in public coastal access. Similar to under the proposed project, significant impacts related to inadequate emergency access and insufficient parking and decreased public coastal access would be reduced to less-than-significant levels with mitigation. While the reduction in boat slips under Alternative 2 would slightly reduce the number of vehicle trips to the Pier 32 Marina, the reduction would likely have a negligible effect on VMT. Therefore, impacts related to VMT under Alternative 2

would be significant and unavoidable even after implementation of mitigation identified in Section 4.13, *Transportation, Circulation, and Parking*. Impacts would be similar to those of the project.

7.5.2.14 Utilities and Service Systems

Under Alternative 2, insufficient water supplies available and insufficient pipeline capacity to meet the fire-flow demand plus maximum-day demands could occur from the development of the landside uses, notably the four hotels. Similar to those of the project, impacts related to water supply and fire-flow would be reduced to less-than-significant levels with implementation of the mitigation measures identified in Section 4.14, *Utilities and Service Systems*. This alternative would also result in impacts related to insufficient sewer and stormwater facilities, which would be reduced to less-than-significant levels with implementation of mitigation, similar to under the proposed project. Therefore, Alternative 2 would result in similar impacts compared to the proposed project.

7.5.2.15 Relationship to Project Objectives and Summary of Impacts

The No Waterside Development in Sweetwater Channel Alternative would not meet the project objectives associated with the development and operation of the project. Alternative 2 would meet Objectives #1, 5, 6, 7, 10, 11, and 12 by modifying the land uses and their configurations to further activate the project area. Alternative 2 would meet a portion of Objectives #2, 3, 4, and 8 by reconfiguring maritime and commercial uses while increasing public access in the project area to eliminate impediments, such as existing roads and non-contiguous land use configurations; fostering the development of high-quality commercial uses and increasing park space and recreational opportunities; and ensuring consistency with the Jurisdictional Runoff Management Program. However, Alternative 2 would not meet any of Objective #9 because it would not involve expansion of aquaculture opportunities in San Diego Bay.

This alternative would slightly reduce impacts associated with biological resources (i.e., avoiding removal of eelgrass and reducing pile-driving noise impacts on wildlife) compared to the project because of the elimination of construction activities within Sweetwater Channel. All other impacts under this alternative would be similar to those of the proposed project.

7.5.3 Analysis of Alternative 3 – GB Capital Component Phase 1 Only Alternative

7.5.3.1 Aesthetics and Visual Resources

Alternative 3 would not include Phase 2 of the GB Capital Component. As such, this alternative would not construct and operate an up-to-three-story hotel generally on Parcel B1 of the Balanced Plan; would not construct and operate an up-to-four-story building on Parcel B6 of the Balanced Plan; and would not construct and operate an up-to-four-story hotel and an 11-story hotel on Parcel B3 of the Balanced Plan. However, no aesthetics and visual resource impacts from construction and operation of the hotels would occur. Construction activities in the Pier 32 Marina, on the jetty, and in Sweetwater Channel associated with Phase 1 of the GB Capital Component would still result in significant temporary impacts on vista areas and could restrict access to key observation points (KOPs) for up to 2 years. Therefore, under Alternative 3, impacts on aesthetics and visual resources related to the relocation of Granger Hall would still be significant and mitigable, similar to those of the proposed project.

7.5.3.2 Air Quality and Health Risk

Air quality impacts associated with proposed project construction and operation would occur prior to mitigation, but mitigation would reduce operational impacts to below relevant thresholds. Under Alternative 3, Phase 2 of the GB Capital Component would not be implemented, which would reduce the amount of air pollutant emissions generated during construction and operation. However, although Phase 2 of the GB Capital Component would not be constructed under Alternative 3, the other components of the proposed project that generate air pollutant emissions would be developed. Moreover, Phase 2 of the GB Capital Component of the proposed project would be constructed at a later date and would not overlap with construction of any other project components. Therefore, while Phase 2 of the GB Capital Component would not be constructed as part of the alternative, impacts and mitigation identified in Section 4.2, *Air Quality and Health Risk,* for the proposed project would remain the same as under this alternative, and emissions at full buildout would be reduced given that fewer uses would be developed. Overall, Alternative 3 would reduce total air pollutant emissions compared to the proposed project, would not change construction-related impacts, and would reduce operational emissions. Consequently, significant air quality impacts under Alternative 3 would be slightly reduced when compared to those of the proposed project.

7.5.3.3 Biological Resources

The proposed project would have multiple significant but mitigable impacts on biological resources, including the potential to adversely affect special-status vegetation and wildlife; disturb nesting birds; damage sensitive vegetation; directly affect bat roost sites; potentially disrupt fishes, green sea turtles, and marine mammals during construction; and permanently remove habitat.

Alternative 3 would not include Phase 2 of the GB Capital Component, thereby reducing the number of hotels constructed. However, construction and operation of the Bayshore Bikeway would occur as proposed, which would result in the loss and/or degradation of habitat, potential disturbance or destruction of nests, potential trampling of sensitive vegetation and special-status plant species, and potential adverse effects on state or federally protected wetlands. Similar to under the project, implementation of mitigation measures would reduce these impacts to a less-than-significant level. Under Alternative 3, waterside components would be constructed and operated as proposed, and, as with the project, there would be potential impacts on fishes, green sea turtles, and marine mammals, and a potential reduction or loss in eelgrass habitat. Similar to those of the project, these impacts would be reduced to less-than-significant levels with implementation of the mitigation measures identified in Section 4.3, *Biological Resources*. Therefore, impacts on biological resources under Alternative 3 would be less than significant, similar to those of the project.

7.5.3.4 Cultural Resources, Tribal Cultural Resources, and Paleontological Resources

Under the proposed project, all impacts on cultural resources (i.e., potential relocation of Granger Hall, and excavation in areas with potential archaeological resources, tribal cultural resources, and paleontological resources) would be less than significant after mitigation. Alternative 3 would not include Phase 2 of the GB Capital Component, thereby reducing the amount of ground-disturbing activities that have the potential to disturb archaeological, tribal cultural, or paleontological resources. However, Alternative 3 would be required to adopt mitigation measures similar to those

identified in Section 4.4, *Cultural Resources, Tribal Cultural Resources, and Paleontological Resources*, to avoid potential impacts related to the discovery of cultural and paleontological resources for all other areas where ground-disturbing activities would occur. The optional feature to relocate Granger Hall to Pepper Park would still occur under Alternative 3. As such, Alternative 3 would be required to adopt mitigation measures to avoid potential impacts related to an adverse change in the significance of a historical resource. Therefore, impacts on cultural resources under Alternative 3 would be less than significant with mitigation incorporated, similar to those of the project.

7.5.3.5 Energy

Energy impacts associated with proposed project construction and operation would occur prior to mitigation, but mitigation measures identified in Section 4.5, *Energy*, would reduce energy impacts to less-than-significant levels. Alternative 3 does not include Phase 2 of the GB Capital Component and would thereby reduce the potential for wasteful, inefficient, or unnecessary consumption of energy resources associated with the construction of new hotels. Therefore, energy impacts under Alternative 3 would be similar but reduced compared to the proposed project. Similar to under the proposed project, energy impacts would be significant and require mitigation to reduce impacts to less-than-significant levels. Therefore, energy consumption would be lower, but energy impacts under Alternative 3 would be similar to those of the proposed project.

7.5.3.6 Greenhouse Gas Emissions and Climate Change

Alternative 3 would result in construction and operational emissions similar to those of the proposed project except for the removal of the Phase 2 of the GB Capital Component. Landside components and land use changes would be the same as under the proposed project. Under Alternative 3, all components proposed under the project, with the exception of Phase 2 of the GB Capital Component, would be implemented; therefore, activities that have the potential to generate significant GHG emissions would be reduced. However, all other project components would be constructed and operated, would not meet the numerical efficiency targets in 2025 or 2050, and would only partially comply with plans, policies, and regulatory programs outlined in applicable District and City CAP measures and applicable state reduction goals and plans, policies, or regulations. Overall, impacts related to Alternative 3 would be reduced compared to those of the proposed project, but would still remain significant and avoidable.

7.5.3.7 Hazards and Hazardous Materials

Hazards and hazardous materials impacts associated with proposed project construction and operation would occur prior to mitigation, but mitigation would reduce hazard impacts to less-than-significant levels. Alternative 3 would eliminate Phase 2 of the GB Capital Component and, as such, would not construct and operate up to four hotels. However, construction of all other project components would occur, including the City Program – Development Component and the Pasha Road Closures Component, under which construction could disturb contaminated soil and release hazardous materials. Similar to under the project, development of the City Program – Development Component under this alternative would conflict with the requirements of the Department of Environmental Health closure on site. In addition, construction activities would result in partial or full road closures, which could physically interfere with implementation of an emergency access or response plan. Similar to those of the project, these impacts would be reduced to less-than-significant levels with implementation of the mitigation measures identified in Section 4.7, *Hazards*

and Hazardous Materials. Therefore, Alternative 3 would result in less-than-significant hazards and hazardous materials impacts, similar to the project.

7.5.3.8 Hydrology and Water Quality

Alternative 3 would eliminate Phase 2 of the GB Capital Component and, as such, would not construct and operate up to four hotels. The elimination of four hotels would reduce the potential for polluted runoff to enter Sweetwater Channel as well as reduce the potential for violations to water quality standards and waste discharge requirements. Hydrology and water quality impacts under Alternative 3 would be slightly reduced compared to those of the project; however, impacts under the proposed project would be less than significant. Therefore, similar to under the project, impacts related to hydrology and water quality under Alternative 3 would be less than significant.

7.5.3.9 Land Use and Planning

Alternative 3 would result in the same landside improvements as those proposed as part of the project, with the exception of Phase 2 of the GB Capital Component. As such, project components under Alternative 3 would be consistent with plans, policies, and regulations adopted for the purposes of avoiding or mitigating an environmental effect. Land use and planning impacts under Alternative 3 would be less than significant, similar to those of the project.

7.5.3.10 Noise and Vibration

Alternative 3 would eliminate noise and vibration associated with construction of four hotels within the GB Capital Component, including the pile driving that would be required to support those buildings. As a result, Alternative 3 would eliminate the significant impacts related to potential building vibration damage at the Waterfront Grill at Pier 32 Marina due to pile driving. However, the remaining significant and unavoidable impacts related to construction noise would remain. The removal of the hotels would eliminate the significant onsite rail noise impacts at those locations and would incrementally reduce traffic noise levels by reducing the number of visitors to the GB Capital Component. However, this alternative would not eliminate the remaining impacts predicted at onsite noise-sensitive receptors due to traffic, rail, and operational noise, or at offsite locations due to project mechanical equipment. The project's significant and unavoidable impacts related to rail noise exposure at the proposed RV sites at the GB Capital Component, and operational noise from the proposed dry boat storage facility, would remain unchanged. Consequently, overall noise and vibration impacts would be slightly reduced under Alternative 3 when compared to the proposed project.

7.5.3.11 Population and Employment

Alternative 3 does not include the construction or operation of Phase 2 of the GB Capital Component. The elimination of this component would reduce employment potential, but would not reduce any population and employment impacts compared to the proposed project. Therefore, similar to under the project, impacts related to population and employment under Alternative 3 would be less than significant.

7.5.3.12 Public Services and Recreation

Alternative 3 would involve the same project components, with the exception of Phase 2 of the GB Capital Component, but would result in a slightly reduced demand on police and fire services compared to the project. Alternative 3 would result in the same expanded amount of park area as the project, and, like the proposed project, would serve additional visitors during operations and would not result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable services ratios, response times, or other performance objectives for parks. Therefore, Alternative 3's public services and recreation impacts would be similar to those of the project.

7.5.3.13 Transportation, Circulation, and Parking

The proposed project would result in significant and unavoidable impacts from the generation of VMT in exceedance of employment-based thresholds during operations and induced travel and increase VMT from the closure of Bay Marina Drive. All other potential impacts resulting from the proposed project, including inadequate emergency access during construction, removal of tsunami evacuation routes from the closure of Bay Marina Drive, and an insufficient parking supply that could reduce public coastal access during construction and operation, would be reduced to less-than-significant levels after mitigation.

Alternative 3 would include development of all waterside components of the proposed project and a majority of the landside components, but would not include Phase 2 of the GB Capital Component. As such, Alternative 3 would still generate vehicle trips and total VMT from these uses, but the amount of vehicle trips and total VMT generated would be reduced compared to under the project due to the elimination of four hotels under this alternative. However, while total VMT would be reduced under this alternative, it is anticipated that Alternative 3 would still result in significant and unavoidable impacts related to VMT after mitigation because the ratio of VMT per employee and per visitor would not improve, similar to under the proposed project. Additionally, Alternative 3 would result in significant impacts associated with inadequate emergency access during construction, as well as insufficient parking during construction and insufficient parking for terminal employees during operations that could lead to a decrease in public coastal access. Because the extent of construction would be reduced under Alternative 3, construction-related impacts on emergency access and parking supply would be slightly reduced compared to the proposed project. Similar to those of the proposed project, however, these impacts would be reduced to less-than-significant levels with mitigation identified in Section 4.13, *Transportation, Circulation, and Parking*. Overall, Alternative 3 would result in slightly reduced impacts on transportation, circulation, and parking.

7.5.3.14 Utilities and Service Systems

Under Alternative 3, Phase 2 of the GB Capital Component—including construction and operation of an up-to-four-story hotel with up to 81 rooms on Parcel B3 of the Balanced Plan—would be eliminated. As such, impacts associated with insufficient pipeline capacity to meet the fire-flow demand plus maximum-day demands and water supply would be reduced compared to those of the project. Alternative 3 would include all other project components as proposed, which would result in similar impacts on utilities and service systems as under the project. Similar to those of the project, these impacts would be reduced to a less-that-significant level with implementation of the

mitigation measures identified in Section 4.14, *Utilities and Service Systems*. Therefore, Alternative 3 would result in less-than-significant utilities and service systems impacts, similar to the project.

7.5.3.15 Relationship to Project Objectives and Summary of Impacts

The GB Capital Component Phase 1 Only Alternative would partially meet the project objectives associated with the development and operation of the project. Alternative 3 would partially meet Objectives #1, 2, 3, 4, 5, 6, 7, 8, 10, 11, and 12 by modifying the land uses and their configurations to further activate the project area; however, activation would be reduced with the absence of up to four hotels. Alternative 3 would meet a portion of Objectives #2, 3, 4, 8, 10, and 12 by increasing public access in the project area to eliminate impediments, such as existing roads and non-contiguous land use configurations; increasing park space and recreational opportunities; and ensuring consistency with the Jurisdictional Runoff Management Program. Alternative 3 would meet Objective #9 because it would still involve expansion of aquaculture opportunities in San Diego Bay.

This alternative would slightly reduce impacts associated with air quality and GHG emissions compared to the project because of the elimination of the development of up to four hotels. Alternative 3 would also reduce noise and vibration impacts associated with construction of four hotels, including the pile driving that would be required to support those buildings. Alternative 3 would eliminate the significant onsite rail noise impacts at adjacent hotel locations and would incrementally reduce traffic noise levels by reducing the number of visitors to the hotel. All other impacts under this alternative would be similar to those of the proposed project.

7.5.4 Analysis of Alternative 4 – Reduced Development Intensity Alternative

7.5.4.1 Aesthetics and Visual Resources

Alternative 4 would reduce the height of the hotels and number of rooms proposed under the GB Capital Component and reduce the height of the five-story hotel and number of hotel rooms as part of the City Program – Development Component. The significant and mitigable impact associated with the relocation of Granger Hall to Pepper Park would be similar to that of the proposed project under Alternative 4.

The widening of the Central Promenade that provides access to the Pier 32 Marina scenic vista and the addition of a walkway and viewing park on the jetty scenic vista would reduce impacts on the KOPs. Therefore, impacts related to aesthetics and visual resources, including substantial interference with views available from KOPs, would be less than significant under this alternative. Impacts from Alternative 4 on aesthetics and visual resources would be reduced compared to those of the proposed project.

7.5.4.2 Air Quality and Health Risk

Air quality impacts associated with proposed project construction and operation would occur prior to mitigation, but mitigation would reduce operational impacts to below relevant thresholds. Under Alternative 4, there would be reduced intensity and less development than under the proposed project. Although intensity would be reduced under this alternative, the other components of the proposed project would be developed as proposed. Given the reduced amount of development, Alternative 4 would reduce air pollutant emissions compared to the proposed project but would

likely remain above thresholds during overlapping construction phases; therefore, air quality and health risk impacts would be slightly reduced compared to those of the proposed project.

7.5.4.3 Biological Resources

Under Alternative 4, the height of the hotels and number of rooms proposed under the GB Capital Component and City Program – Development Component would be reduced. Similar to under the project, implementation of mitigation measures would reduce impacts to a less-than-significant level. As such, when compared to the project, construction and operation of Alternative 4 would result in slightly reduced impacts. Therefore, similar to those of the project, impacts on biological resources under Alternative 4 would be less than significant with mitigation measures as identified in Section 4.3, *Biological Resources*.

7.5.4.4 Cultural Resources, Tribal Cultural Resources, and Paleontological Resources

Some landside project components would be reduced under Alternative 4 compared to the project. Alternative 4 would result in a similar degree of ground-disturbing activities throughout the project site, which have the potential to disturb archaeological, tribal cultural, or paleontological resources. The optional feature of the proposed Pepper Park expansion to relocate Granger Hall would still be proposed under Alternative 4. As such, Alternative 4 would be required to adopt mitigation measures similar to those identified in Section 4.4, *Cultural Resources, Tribal Cultural Resources, and Paleontological Resources*, to avoid potential impacts related to an adverse change in the significance of a historical resource through the relocation of Granger Hall, and the potential encounter of archaeological, tribal cultural, and paleontological resources. Therefore, impacts on cultural resources under Alternative 4 would be similar to those of the project.

7.5.4.5 Energy

Energy impacts associated with proposed project construction and operation would occur prior to mitigation, but mitigation would reduce energy impacts to less-than-significant levels. Under Alternative 4, the number of hotel rooms would be reduced, which would reduce energy consumption associated with operations. Therefore, energy impacts would be slightly reduced compared to the proposed project. However, development would still require the mitigation measures identified in Section 4.5, *Energy*, to reduce energy consumption. As such, similar to those of the proposed project, the impacts would be significant and require mitigation. Therefore, while energy consumption would be lower, energy impacts under Alternative 4 would be similar to those of the proposed project.

7.5.4.6 Greenhouse Gas Emissions and Climate Change

Alternative 4 would result in construction and operational sources similar to those of the proposed project, but in lesser quantities because Alternative 4 includes reduced intensity and less development than the proposed project. Similar to under the proposed project, project components would not meet the numerical efficiency targets in 2025 or 2050 and would only partially comply with plans, policies, and regulatory programs outlined in applicable District and City CAP measures and applicable state reduction goals and plans, policies, or regulations prior to mitigation identified in Section 4.6, *Greenhouse Gas Emissions and Climate Change*. Therefore, although Alternative 4

would result in slightly reduced GHG impacts compared to the proposed project, impacts would remain significant and unavoidable.

7.5.4.7 Hazards and Hazardous Materials

Alternative 4 would reduce the height of the hotels and number of rooms proposed under the GB Capital Component, and reduce the height of the five-story hotel and number of hotel rooms as part of the City Program – Development Component. However, construction of all other project components would occur under Alternative 4 including the City Program – Development Component and the Pasha Road Closures Component, which could result in construction activities that could disturb contaminated soil and release hazardous materials. Similar to under the project, development of the City Program – Development Component under this alternative would conflict with the requirements of the Department of Environmental Health closure on site. In addition, construction activities would result in partial or full road closures that could physically interfere with implementation of an emergency access or response plan. Similar to those of the project, the impacts would be reduced to less-than-significant levels with implementation of the mitigation measures identified in Section 4.7, *Hazards and Hazardous Materials*. Therefore, Alternative 4 would result in less-than-significant hazards and hazardous materials impacts, similar to the project.

7.5.4.8 Hydrology and Water Quality

Alternative 4 would reduce the height of the hotels and number of rooms proposed under the GB Capital Component and reduce the height of the five-story hotel and number of hotel rooms as part of the City Program – Development Component. However, the proposed project would not result in any significant hydrology and water quality impacts. Therefore, similar under to the project, impacts related to hydrology and water quality under Alternative 4 would be less than significant.

7.5.4.9 Land Use and Planning

Alternative 4 would result in similar landside improvements as those proposed as part of the project; however, the height of the hotels and number of rooms proposed under the GB Capital Component and the City Program – Development Component would be reduced. However, similar to the project, this alternative would not conflict with any plans, policies, or regulations adopted for avoiding or mitigating environmental effects and impacts would be less than significant. Overall, Alternative 4 would result in similar land use and planning impacts as the project.

7.5.4.10 Noise and Vibration

Alternative 4 would eliminate some noise and vibration associated with construction. It would also reduce the intensity and/or duration of construction at the GB Capital Component. However, these sites would be a large distance from the closest offsite noise-sensitive receptors and, therefore, Alternative 4 would not change the predicted significant construction impacts at offsite locations. The reduced intensity of visitor accommodations would incrementally reduce traffic noise levels by reducing the number of visitors to the GB Capital Component and Pier 32 Marina. However, this alternative would not eliminate the remaining impacts predicted at onsite noise-sensitive receptors due to traffic, rail, and operational noise, or at offsite locations due to project mechanical equipment. Consequently, overall noise and vibration impacts would be slightly reduced under Alternative 4 when compared to the proposed project.

7.5.4.11 Population and Employment

Under Alternative 4, the height of the hotels and number of rooms proposed under the GB Capital Component and the City Program – Development Component would be reduced. The reduction of these components would not reduce any population and employment impacts compared to the proposed project. Therefore, similar to under the project, impacts related to population and employment under Alternative 4 would be less than significant.

7.5.4.12 Public Services and Recreation

Alternative 4 would result in a reduced number of hotel rooms compared to the project and would reduce the demand on police and fire services in the project area. However, Alternative 4 would result in the same amount of recreational park area as the project, and, like the proposed project, would serve additional visitors during operations and would not result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable services ratios, response times, or other performance objectives for parks. Therefore, Alternative 4's public services and recreation impacts would be similar to those of the project.

7.5.4.13 Transportation, Circulation, and Parking

The proposed project would result in significant and unavoidable impacts from the generation of VMT in exceedance of employment-based thresholds during operations and induced travel and increased VMT from the closure of Bay Marina Drive. All other potential impacts resulting from the proposed project, including inadequate emergency access during construction, removal of tsunami excavation routes from the closure of Bay Marina Drive, and an insufficient parking supply that could reduce public coastal access during construction and operation, would be reduced to less-than-significant levels after mitigation.

Alternative 4 would result in a reduced number of hotel rooms compared to the project. Alternative 4 would still generate vehicle trips and total VMT, but the amount of vehicle trips and total VMT generated would be reduced compared to under the project due to the decrease in overall development intensity under this alternative. However, while total VMT would be reduced under this alternative, it is anticipated that Alternative 4 would still result in significant and unavoidable impacts related to VMT after mitigation because the ratio of VMT per employee and per visitor would not improve, similar to under the proposed project. Additionally, Alternative 4 would result in significant impacts associated with inadequate emergency access during construction and operation, as well as insufficient parking during construction and insufficient parking for terminal employees during operations that could lead to a decrease in public coastal access. Because the extent of construction would be reduced under Alternative 4, construction-related impacts on emergency access and parking supply would be slightly reduced compared to the proposed project. Similar to those of the proposed project, however, these impacts would be reduced to less-than-significant levels with mitigation measures identified in Section 4.13, *Transportation, Circulation, and Parking*. Overall, Alternative 4 would have slightly reduced impacts on transportation, circulation, and parking when compared to the project.

7.5.4.14 Utilities and Service Systems

Under Alternative 4, the number of rooms proposed under the GB Capital Component and the City Program – Development Component would be reduced. As such, impacts associated with insufficient water supplies, wastewater facilities, stormwater facilities, and insufficient pipeline capacity to meet the fire-flow demand plus maximum-day demands would be reduced compared to those of the project. Alternative 4 would include all other project components as proposed, which would result in similar impacts on utilities and service systems as under the project. Similar to those of the project, these impacts would be reduced to less-than-significant levels with implementation of the mitigation measures identified in Section 4.14, *Utilities and Service Systems*. Therefore, Alternative 4 would result in less-than-significant impacts on utilities and service systems impacts, similar to the project.

7.5.4.15 Relationship to Project Objectives and Summary of Impacts

This alternative would only partially meet the project objectives. The reduction of hotel heights and number of hotel rooms proposed by this alternative would only partially meet Objectives #1, 2, 3, 10, and 12 by modifying land uses and their configurations to further activate the project area. However, this alternative would fail to meet Objective #1 by failing to maximize employment opportunities and resulting in economic impacts associated with the proposed hotel development. Objective #3 would not be met in that the economic vitality of the project and its revenue generation, including Transient Occupancy Tax, would be substantially compromised, possibly jeopardizing the feasibility of this portion of the project. Objective #4 would not be met, as Alternative 4 would not maximize the opportunity to generate tourism for National City. Objectives #5 and 6 would be met by improving the efficiency of train operations and offsetting loss of land for maritime operations. Objective #7 would be met by incorporating District properties into the PMP that are not currently regulated by the PMP, and Objective #9 would be met by expanding aquaculture potential of San Diego Bay. This alternative would partially meet Objective #8 by ensuring consistency with the Jurisdictional Runoff Management Program.

7.5.5 Environmentally Superior Alternative

Pursuant to CEQA, the EIR is required to identify the environmentally superior alternative. Although the No Project Alternative (Alternative 1) reduces the greatest number of significant impacts, CEQA requires that when the environmentally superior alternative is the No Project Alternative, another alternative should be identified. The Reduced Development Intensity Alternative (Alternative 4) reduces the second-largest number of significant impacts and is considered the environmentally superior alternative (see Table 7-3). Alternative 4 would reduce the height of the hotels and number of rooms proposed under the GB Capital Component and reduce the height of the five-story hotel and number of hotel rooms as part of the City Program – Development Component, which would reduce impacts related to aesthetics and visual resources, air quality and health risk, GHG emissions, noise and vibration, and transportation, circulation, and parking. Alternative 4 would partially meet Objective #8 because the alternative would be consistent (after mitigation) with the City's environmental policies and the District's CAP, Clean Air Program, and Jurisdictional Runoff Management Program. However, all other project objectives would be satisfied (see Table 7-4).

Table 7-3. Summary Impact Comparison of the Project and the Alternatives

Environmental Resource	Project Determination	No Project Alternative (Alternative 1)	No Waterside Development in Sweetwater Channel Alternative (Alternative 2)	GB Capital Component Phase 1 Only Alternative (Alternative 3)	Reduced Development Intensity Alternative (Alternative 4)
Aesthetics and Visual Resources	Less than Significant with Mitigation	Substantially Reduced	Similar	Similar	Slightly Reduced
Air Quality and Health Risk	Less than Significant with Mitigation	Slightly Reduced	Similar	Slightly Reduced	Slightly Reduced
Biological Resources	Less than Significant with Mitigation	Slightly Reduced	Slightly Reduced	Similar	Similar
Cultural Resources, Tribal Cultural Resources, and Paleontological Resources	Less than Significant with Mitigation	Slightly Reduced	Similar	Similar	Similar
Energy	Less than Significant with Mitigation	Slightly Reduced	Similar	Similar	Similar
Greenhouse Gas Emissions and Climate Change	Significant and Unavoidable	Substantially Reduced	Similar	Slightly Reduced	Slightly Reduced
Hazards and Hazardous Materials	Less than Significant with Mitigation	Slightly Reduced	Similar	Similar	Similar
Hydrology and Water Quality	Less than Significant	Similar	Similar	Similar	Similar
Land Use and Planning	Less than Significant with Mitigation	Substantially Greater	Similar	Similar	Similar
Noise and Vibration	Significant and Unavoidable	Substantially Reduced	Similar	Slightly Reduced	Slightly Reduced
Population and Employment	Less than Significant	Similar	Similar	Similar	Similar
Public Services and Recreation	Less than Significant	Slightly Reduced	Similar	Similar	Similar
Transportation, Circulation, and Parking	Significant and Unavoidable	Substantially Reduced	Similar	Slightly Reduced	Slightly Reduced
Utilities and Service Systems	Less than Significant with Mitigation	Slightly Reduced	Similar	Similar	Similar

Table 7-4. Summary Project Objective Comparison of Proposed Project Alternatives

Project Objective	No Project Alternative (Alternative 1)	No Waterside Development in Sweetwater Channel (Alternative 2)	GB Capital Component Phase 1 Only Alternative (Alternative 3)	Reduced Development Intensity Alternative (Alternative 4)
1. Further activate the project site by modifying the land uses and their configurations to foster the development of high-quality commercial and recreational uses to maximize employment opportunities, maximize recreational opportunities for visitors, maximize economic development opportunities, and improve cargo and transportation efficiencies of maritime industrial uses associated with operations at NCMT.	No	Yes	Yes	Yes
2. Reconfigure maritime and commercial uses to balance the anticipated future market demands for those uses, while also increasing public access on the project site.	No	Partially	Partially	Yes
3. Implement cohesive commercial development that is designed to enhance enjoyment of the National City Marina District and surrounding city area, contribute to the area's economic vitality, and generate economic revenue for the City including through increased Transient Occupancy Tax.	No	Partially	Yes	Yes
4. Increase park space and recreational opportunities to enhance the waterfront experience for all visitors and maximize opportunities to attract tourism to the city.	No	Partially	Yes	Yes
5. Reduce unnecessary train movements and reduce the required effort associated with building daily trains by improving near-terminal rail storage capacity and creating a more direct connection between the BNSF Railway National City Yard and the NCMT.	No	Yes	Yes	Yes
6. Offset the loss of existing land used for maritime operations, as proposed in the Balanced Plan, by closing internal District streets (i.e., Tidelands Avenue and West 28th Street) adjacent to existing maritime operations to create contiguous space for maritime operations and configuring cargo operations at and	No	Yes	Yes	Yes

Project Objective	No Project Alternative (Alternative 1)	No Waterside Development in Sweetwater Channel (Alternative 2)	GB Capital Component Phase 1 Only Alternative (Alternative 3)	Reduced Development Intensity Alternative (Alternative 4)
adjacent to the NCMT to create cargo-handling efficiencies to reduce cargo movements.				
7. Incorporate District properties into the PMP that are not currently regulated by the PMP to ensure consistency with the California Coastal Act, Public Trust Doctrine, and Port Act.	No	Yes	Yes	Yes
8. Be consistent with the City's environmental policies and the District's Climate Action Plan, Clean Air Program, and Jurisdictional Runoff Management Program to ensure that the proposed project does not adversely affect the District's or City's ability to attain their respective long-range environmental and sustainability goals.	No	Partially	Partially	Partially
9. Expand aquaculture potential on District tidelands.	No	No	Yes	Yes
10. Incorporate a land use pattern for the National City Marina District into the PMP that establishes habitat buffers and implements operational features to avoid land use and operational inconsistencies between commercial, recreational, open space, and maritime uses.	No	Yes	Partially	Yes
11. Integrate National City art, culture, and history into the development of the proposed project.	No	Yes	Partially	Yes
12. Increase the connectivity of the project area to the surrounding area and facilitate increased pedestrian activity and enjoyment of San Diego Bay for visitors.	No	Partially	Partially	Yes

Chapter 8
List of Preparers and Agencies Consulted

8.1 Lead Agency—San Diego Unified Port District

Anna Buzaitis	Program Manager, Planning
Ashley Wright	Senior Planner
Jenny Vick	HDR – Consulting Project Manager
Ryan Donald	Department Manager, Real Estate
Amber Jensen	Asset Manager, Real Estate
Jason Giffen	Vice President, Planning & Environment
Lesley Nishihira	Director, Planning
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8.2 EIR Preparation—ICF

EIR Management

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Technical Staff

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Emily Seklecki	Environmental Planner
Claudia Watts	Environmental Planner
Matt McFalls	Senior Air Quality and Greenhouse Gas Specialist
Sarah Halterman	Air Quality and Climate Change Specialist
Jonathan Higginson, INCE	Senior Noise Specialist
Jakob Rzeszutko	Noise Specialist
Karen Crawford, MA, RPA	Technical Director, Cultural Resources (QA/QC)
Tim Yates, Ph.D., MA	Historian (Built Environment)
Karolina Chmiel, MA	Archaeologist

Ryan Layden	Associate Biologist
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8.3 Biological Resources Report—Dudek

Anita Hayworth	Senior Biologist

8.4 Traffic Report—Chen Ryan Associates

Dale Domingo	Project Planner

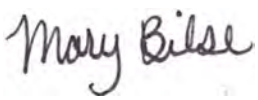
8.5 Marine Biological Resources Report—Marine Taxonomic Services

Robert Mooney	Principal Marine Biologist

8.6 Agencies, Organizations, and Persons Consulted

Agency/Company Name	Contact
State of California, Governor's Office of Planning and Research, State Clearinghouse and Planning Unit (SCH)	N/A
City of National City	Raymond Pe, Principal Planner; Martin Reeder, Principal Planner
G.B Capital	Greg Boeh
Pasha Automotive Services	Sophie Silvestri

I hereby certify that the statements furnished above present the data and information required for this report to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.



Date: September 27, 2021

Mary Bilse, Project Manager, ICF

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