



Final Environmental Impact Report
**Fifth Avenue Landing Project and
Port Master Plan Amendment**

San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101



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DRAFT ENVIRONMENTAL IMPACT REPORT FIFTH AVENUE LANDING PROJECT AND PORT MASTER PLAN AMENDMENT

PREPARED FOR:

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Acronyms and Abbreviations

μg/m ³	micrograms per cubic meter
μPa	microPascal
AB	Assembly Bill
ACC	Advanced Clean Cars
ACM	asbestos-containing material
ADA	Americans with Disabilities Act
ADT	average daily traffic
AEP	Association of Environmental Professionals
AFY	acre-feet per year
AIA	Airport Influence Area
Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AMSL	above mean sea level
AQIA	Air Quality Impact Analysis
AR4	IPCC Fourth Assessment Report
ARB	California Air Resources Board
ARC	Amended, Restated and Combined
BAU	business-as-usual
Bay	San Diego Bay
BMP	best management practice
Board	Board of Port Commissioners
BP	before present
BTU	British thermal unit
C&D	construction and demolition
CA Title 22	California Code of Regulations, Title 22

CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	California Division of Occupational Safety and Health
CalEEMod	California Emissions Estimator Model
CalEnviroScreen	California Communities Environmental Health Screening Tool
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
Campbell	Campbell Industries Marine Construction and Design Company
CAO	cleanup and abatement order
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CBC	California Building Code
CBIA vs. BAAQMD case	California Building Industry Assoc. v. Bay Area Air Quality Management District (Dec. 17, 2015)
CCA	California Coastal Act of 1976
CCC	California Coastal Commission
CCR	California Code of Regulations
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
CFR	Code of Federal Regulations
CGS	California Geological Survey

CH ₄	methane
CHRIS	California Historical Resources Information System
City	City of San Diego
CMP	Congestion Management Program
CNDDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CO-CAT	Coastal and Ocean Working Group of the California Climate Action Team
Corporation	San Diego Convention Center Corporation
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CSLC	California State Lands Commission
CTR	California Toxics Rule
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CY	cubic yard
dB	decibel
dBA	A-weighted decibel
Disposal Plan	Soil and Groundwater Disposal Plan
District	San Diego Unified Port District
DOT	Department of Transportation
DPM	diesel particulate matter
DPR	Department of Parks and Recreation
EDR	Environmental Data Resources, Inc.
EFH	Essential Fish Habitat

EIR	Environmental Impact Report
EMNR	Enhanced Monitored Natural Recovery
EMPN	Embarcadero Marina Park North
EMPS	Embarcadero Marina Park South
EO	Executive Order
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FTE	full time employees
g	gravity
GHG	greenhouse gas
gpd	gallons per day
GPS	global positioning system
GWP	global warming potential
HC	hydrocarbons
HCM	Highway Capacity Manual 2000
HFCs	hydrofluorocarbons
HMD	San Diego County Department of Environmental Health's Hazardous Materials Division
hp	horsepower
HPD	San Diego Harbor Police Department
HREA	Health Risk and Exposure Assessment
HU	hydrologic unit
HVAC	heating, ventilation, and air conditioning
Hz	Hertz

I-	Interstate
ILV	intersection lane volume
in/sec	inch per second
INRMP	Integrated Natural Resources Management Plan
IPAC	Information, Planning, and Consultation System
IPCC	Intergovernmental Panel on Climate Change
JPA	Joint Powers Authority
JRMP	Jurisdictional Runoff Management Plan
KOP	Key Observation Point
kWh	kilowatt hour
Landside Characterization Report	Landside Site Contamination Characterization Report
LBP	lead-based paint
LCFS	Low Carbon Fuel Standard
LDA	light duty auto
L_{dn}	day-night sound level
LDT1	light duty truck 1
LDT2	light duty truck 2
LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent sound level
LID	low-impact development
L_{max}	maximum sound level
L_{min}	minimum sound level
LOS	level of service
LRMOSP	Long-Term Resource Management Options Strategic Plan
Management Agreement	Convention Center Management Agreement (District Document No. 37944)
MBTA	Migratory Bird Treaty Act
mg/L	milligrams per liter

mgd	million gallons per day
MHPA	Multi-Habitat Planning Area
MICR	maximum incremental cancer risk
MMI	Modified Mercalli Intensity
MMPA	Marine Mammal Protection Act
mpg	miles per gallon
mph	miles per hour
MRZ	mineral resource zone
MS4	Municipal Separate Storm Sewer System
MSCP	Multiple Species Conservation Program
MSFMCA	Magnuson-Stevens Fishery Management Conservation Act of 1976, as amended 1996
MSL	mean sea level
MSW	municipal solid waste
MTCO ₂ e	metric tons of carbon dioxide equivalent
MTS	Metropolitan Transit System
MWh	megawatt hour
MWh/year	megawatt-hours per year
N ₂ O	nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NAT	no action taken
NB	northbound
NCWRP	North City Water Reclamation Plant
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO ₂	nitrogen dioxide
NOP	Notice of Preparation

NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRC	National Research Council
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
OSHA	Occupational Safety and Health Administration
PAH	polynuclear aromatic hydrocarbon
pc/h/ln	passenger-car per hour per main lane
PCB	polychlorinated biphenyl
PDP	priority development project
PFCs	perfluorinated carbons
PLWTP	Point Loma Wastewater Treatment Plant
PM	particulate matter
PM ₁₀	particulate matter less than or equal to 10 microns in diameter
PM _{2.5}	particulate matter less than or equal to 2.5 microns in diameter
PMP	Port Master Plan
PMPA	Port Master Plan Amendment
PMPU	Port Master Plan Update
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

Program	Community Health and Safety Program
project proponent	Fifth Avenue Landing, LLC
PUD	City of San Diego Public Utilities Department
PVC	polyvinylchloride
RAQS	Regional Air Quality Strategy
RCFZ	Rose Canyon Fault Zone
RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery Act of 1976
Regional Plan	San Diego Forward: The Regional Plan
Reporting Rule	Greenhouse Gas Reporting Rule
RES	Regional Energy Strategy
ROG	reactive organic gas
RPS	Renewables Portfolio Standard
RTP	regional transportation plan
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
Safety Plan	Site Worker Health and Safety Plan
SANDAG	San Diego Association of Governments
Santa Fe	Atchison, Topeka, and Santa Fe Railroad
SAP	Sampling and Analysis Plan
SB	Senate Bill
SB	southbound
SBWRP	South Bay Water Reclamation Plant
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCH	State Clearinghouse and Planning Unit
SCIC	South Coastal Information Center
SCS	Sustainable Communities Strategy

SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDCC	San Diego Convention Center
SDFD	San Diego Fire-Rescue Department
SDG&E	San Diego Gas and Electric
SDIA	San Diego International Airport
SDPD	City of San Diego Police Department
SDRC	San Diego Rowing Club
Sediment Characterization Report	Marine Sediment Contamination Characterization Report
Sediment Management Plan	Contaminated Sediment Management Plan
SF ₆	sulfur hexafluoride
SIP	State Implementation Plan
SLR	sea-level rise
SLT	screening-level threshold
SO ₂	sulfur dioxide
SO _x	sulfur oxides
SPCC	Spill Prevention Control and Countermeasure
SR-	State Route
SWPPP	Storm Water Pollution Prevention Plan
SWQMP	Storm Water Quality Management Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TAMT	Tenth Avenue Marine Terminal
TBT	tributyltin
TDM	transportation demand management
TDS	total dissolved solids
Testing and Profiling Plan	Soil and Groundwater Testing and Profiling Plan

TIA	Transportation Impact Analysis
Tidelands	tidelands and submerged lands
TMDL	total maximum daily load
TPH	total petroleum hydrocarbons
TSS	Threshold Siting Surface
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
V/C	volume to capacity
VMT	vehicle miles traveled
VOC	volatile organic compound
WoS	waters of the state
WoUS	water of the United States
WQIP	Water Quality Improvement Plan
WTC	water transportation center

Introduction

This chapter provides a summary of the Draft Environmental Impact Report (EIR) prepared for the Fifth Avenue Landing Project & Port Master Plan Amendment (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 proposed project evaluated in this Draft EIR involves a commercial and recreational bayside redevelopment by Fifth Avenue Landing, LLC (project proponent) on an approximately 18-acre site. The proposed project includes landside (5 acres) and waterside (13 acres) development components, as well as a Port Master Plan Amendment (PMPA) for Planning District 3, Centre City Embarcadero to change the allowable land and water uses on the project site. The landside development components include a market-rate hotel tower, lower-cost visitor-serving hotel, an onsite parking structure, visitor-serving retail establishments, a new water transportation center (WTC) that would operate the existing water transportation ferry and water taxi service, and several public spaces and amenities, including an optional connecting pedestrian bridge from the hotel public plaza to the San Diego Convention Center (SDCC), public plaza and park areas, and maintenance of the existing Embarcadero Promenade. The waterside development components include a marina expansion with additional slips to allow for both small and larger vessels to dock at the marina and the continued operation of a water transportation ferry and water taxi service. The proposed project also includes offsite infrastructure improvements that are needed to adequately serve the proposed project, as well as offsite construction staging and construction worker parking. Further details are provided below.

Project Location

The proposed project would be located in downtown San Diego within the District's jurisdiction on an 18-acre project site, which consists of 5 landside acres south of Harbor Drive and the SDCC and west of the existing Hilton San Diego Bayfront Hotel and 13 waterside acres of San Diego Bay east of Embarcadero Marina Park South. The waterside portion of the project site is approximately 350 feet and the landside approximately 1,000 feet from the 96-acre Tenth Avenue Marine Terminal, an omni-terminal that handles refrigerated containers, dry bulk, liquid bulk, and general cargo immediately southeast of the Hilton San Diego Bayfront Hotel. The Bay is southwest of the project site, and the City of Coronado is across the Bay, approximately 0.6 mile to the southwest.

Major circulation facilities in the area include Interstate (I-) 5 and State Route (SR-) 94 to the east and SR-163 to the north. Several freeway ramps are within 1 mile of the project site. The site is also within proximity to rail, with the closest trolley stop, Gaslamp Quarter Station, approximately 900 feet across Harbor Drive to the north and Santa Fe Depot less than 1 mile to the northwest. Figure ES-1 shows the regional location and access to the project site. Figure ES-2 provides the precise location and boundaries of the project site.

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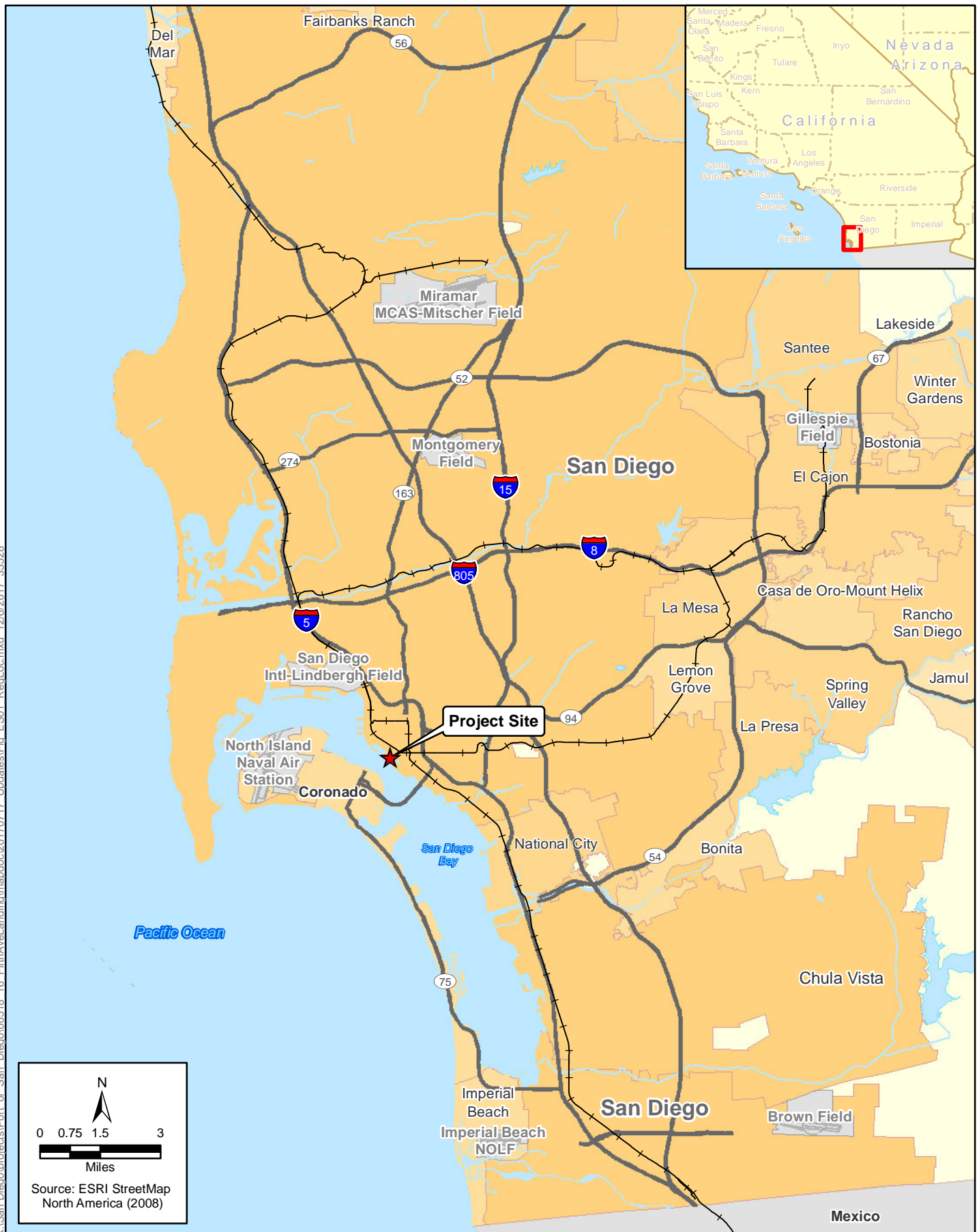
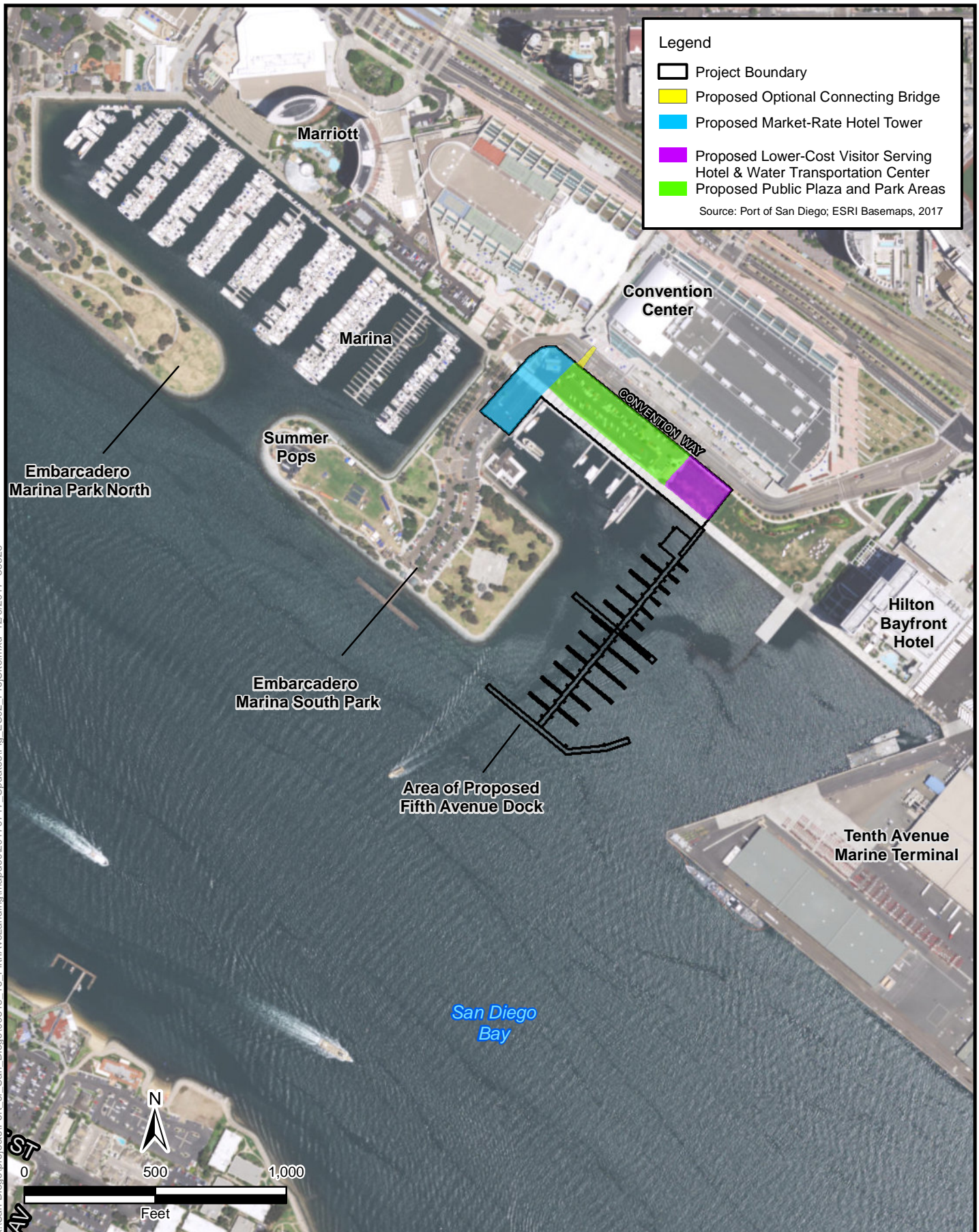


Figure ES-1
Regional Location
Fifth Avenue Landing Project

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Project Objectives

The District has identified the following objectives for the proposed project.

1. Provide for the development and operation of a full-service hotel of a size, quality, and location appropriate for first-class convention operations that is a financially viable operation and is of a similar size and stature as nearby hotels such as the Hilton San Diego Bayfront Hotel (approximately 1,200 rooms), Manchester Grand Hyatt Hotel (approximately 1,625 rooms), and Marriott Marquis San Diego Marina Hotel (approximately 1,355 rooms).
2. Provide lower-cost, visitor-serving accommodations to allow greater access and enjoyment by the public that complies with Board Policy 775, *Guidelines for the Protection, Encouragement, and, Where Feasible, Provision of Lower Cost Visitor and Recreational Facilities*.
3. Provide for infill development on District tidelands that: (a) is compatible with surrounding uses; (b) maximizes the economic benefit to the District and City of San Diego and surrounding region by maximizing hotel room revenue, restaurant and retail sales, and hotel and retail sales taxes; and (c) generates sufficient leasehold revenue to support the District's participation in financing its mission of developing a balance between economic benefits, environmental stewardship, and public safety on behalf of the citizens of California.
4. Increase activation at the project site and along the bayfront by providing public plaza and park spaces, accompanied by visitor-serving retail, an expanded marina, a new water transportation center, and continuing operation of the existing public in-Bay water transportation system.
5. Provide new public vista opportunities of San Diego Bay from vantage points such as the SDCC and proposed public plaza and park areas.
6. Improve public access by providing linkages from the City to the waterfront and Embarcadero Promenade by providing wayfinding signage at multiple entry points, including potential development of a pedestrian bridge that connects the project site with the SDCC and the Gaslamp Quarter of downtown San Diego.
7. Pursue Leadership in Energy and Environmental Design (LEED) Silver certification or achieve an equivalent level of sustainability by incorporating sustainable practices in all elements of project design and construction, leading to a reduction in energy use, water use, and solid waste generation as compared to standard hotel and visitor-serving developments.

Project Components

Market-Rate Hotel Tower

The proposed project would include the construction of an approximately 850-room market-rate hotel tower and open-air pedestrian archway that spans the Embarcadero Promenade. The market-rate hotel tower would rise approximately 498 feet above mean sea level and would total 44 stories in height. The market-rate hotel tower, including the associated retail, restaurant, and meeting space, would be approximately 796,000 gross square feet. Table 3-1 in Chapter 3, *Project Description*, identifies the specific components of the market-rate hotel tower, which includes 850 guest rooms. Figures ES-3 and ES-4 provide the proposed hotel stacking plan and cross-section.

The market-rate hotel tower design is inspired by sail structures of the latest generation of America's Cup sailboats. This design would be a recognition of the maritime uses of San Diego Bay

and the high-tech nature of the America's Cup sailboats. A rendering of the proposed hotel is provided as Figure ES-5.

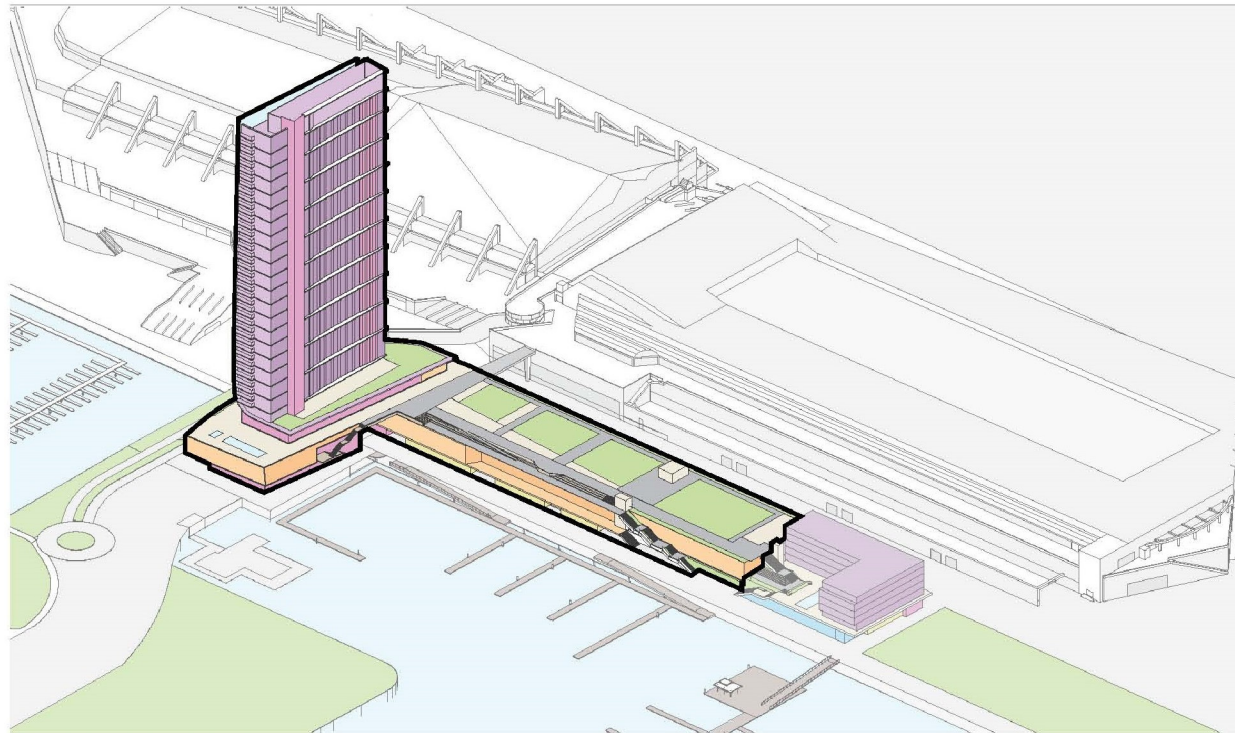
As depicted on Figure ES-6, the open-air pedestrian archway would span the Embarcadero Promenade as visitors approach the market-rate hotel tower and would connect the market-rate hotel tower to its ballroom and meeting facilities, located above the proposed parking structure. The archway would be approximately 43 feet wide, reach a height of approximately 40 feet, and include a smaller glass bridge at a lower height, which would span the Embarcadero Promenade to allow visitors to cross onto the plaza and access other project amenities. The depth and height of the archway would allow pedestrians to experience Bay views, and its design would provide visual connection between the northern and southern portions of the Embarcadero Promenade.

Servicing of the proposed market-rate hotel tower would be accomplished by incorporating up to three loading docks near the north SDCC garage entrance.

Lower-Cost Visitor-Serving Hotel with Water Transportation Center

The proposed project includes the construction of an approximately 565-bed lower-cost visitor-serving hotel, renderings of which are shown on Figures ES-7 and ES-8. The proposed lower-cost visitor-serving hotel would be a five-story, L-shaped structure and would reach an approximate height of 82 feet, with retail abutting the Embarcadero Promenade along the eastern side of the building. This hotel would be near the Hilton San Diego Bayfront Hotel and its bayside park, and include an approximately 3,903-square-foot at-grade public pedestrian walkway. The lower-cost visitor-serving hotel would be situated on its own leasehold parcel as a stand-alone development.

Additionally, an approximately 6,127-square-foot WTC would be integrated into the building footprint of the lower-cost visitor-serving hotel and would consist of an accessory office/marina business center to operate the WTC (3,327 square feet), ticketing (600 square feet), gym for hotel guests and marina users (the gym would not be open for monthly memberships to the public) (1,000 square feet), marina crews restroom/showers (600 square feet), and marina guest lounge (600 square feet), all of which are illustrated on Figure ES-9. The WTC would serve marina customers and their boats, as well as provide operational support for the marina and the existing water transportation ferry service. Parking for the WTC would be provided within the proposed parking garage.



LEVEL

1 Floor	Roof	Mech Penthouse
39 Floors	43	Presidential / Luxury Suites
	42	Presidential / Luxury Suites
	41	Guestrooms
	40	Guestrooms
	39	Guestrooms
	38	Guestrooms
	37	Guestrooms
	36	Guestrooms
	35	Guestrooms
	34	Guestrooms
	33	Guestrooms
	32	Guestrooms
	31	Guestrooms
	30	Guestrooms
	29	Guestrooms
	28	Guestrooms
	27	Guestrooms
	26	Guestrooms
	25	Guestrooms
	24	Guestrooms
	23	Guestrooms
	22	Guestrooms
	21	Guestrooms
	20	Guestrooms
	19	Guestrooms
	18	Guestrooms
	17	Guestrooms
	16	Guestrooms
	15	Guestrooms
	14	Guestrooms
	13	Guestrooms
	12	Guestrooms
	11	Guestrooms
	10	Guestrooms
	9	Guestrooms
	8	Guestrooms
	7	Guestrooms
	6	Guestrooms
	5	Guestrooms
	4	Spa / Fitness
	3	Pool Lounge / 3-Meal Rest
	2	Meeting Rms
	1	Lobby / Lounge / Rest
	B1	BOH

Figure ES-3
Proposed Hotel Tower Stacking Diagram
Fifth Avenue Landing Project

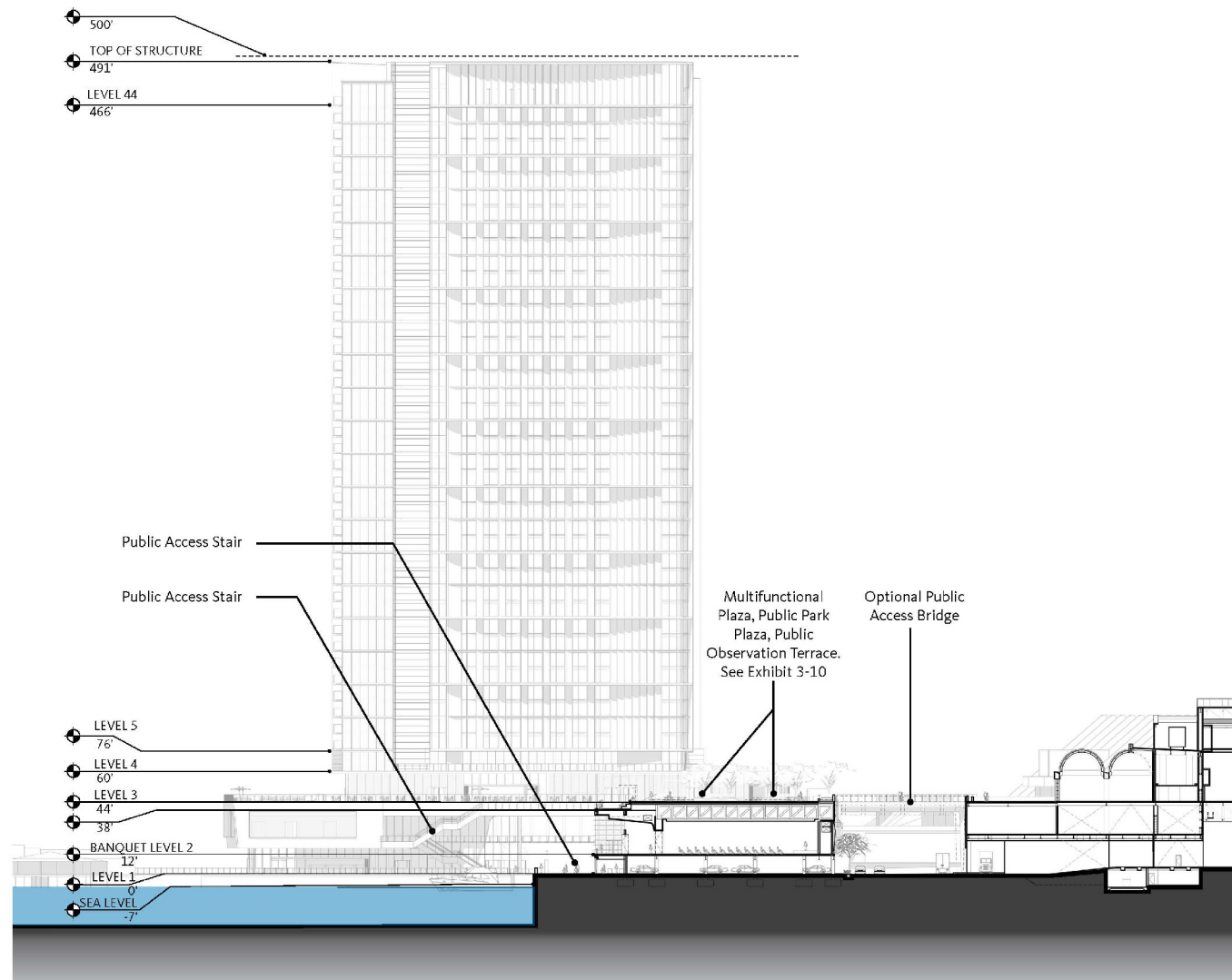


Figure ES-4
Hotel Tower and Public Access Plaza Cross-Section
Fifth Avenue Landing Project







Figure ES-7
Proposed Lower-Cost Visitor-Serving Hotel Rendering
Fifth Avenue Landing Project



Figure ES-8
Proposed Lower-Cost Visitor-Serving Hotel Rendering
Fifth Avenue Landing Project

Optional Connecting Bridge to the San Diego Convention Center

As an optional project feature, the proposed project may potentially include a new public access bridge connecting the proposed market-rate hotel tower rooftop public plaza and park areas to the SDCC view deck. This optional bridge connection would provide visitors with elevated and expansive views of the entire north and mid-Bay and would allow for travel to the City's Gaslamp Quarter. This optional bridge would be approximately 1,882 square feet with a length of 85 feet and a width at the narrow end of 18 feet and wide end of 26 feet. The paving materials for the proposed bridge would be designed to be integrated with the proposed rooftop public plaza and park areas and may consist of a variety of enhanced materials including integral color decorative finished concrete, precast pavers, and/or stone accent paving. In addition, planting material would be included along the bridge in either integrated or free-standing planters. The guardrails are proposed to be constructed of painted metal or stainless steel or a combination of these along with solid planter walls. Concurrence by the District, and potentially the City of San Diego as the contractual managing entity of the SDCC, would be required prior to implementing this portion of the proposed project. An amendment to the Management Agreement between the District and the City of San Diego may also be required. Therefore, the bridge is identified as an optional project component in this EIR. The EIR analyzes the project with and without the optional public access bridge component.

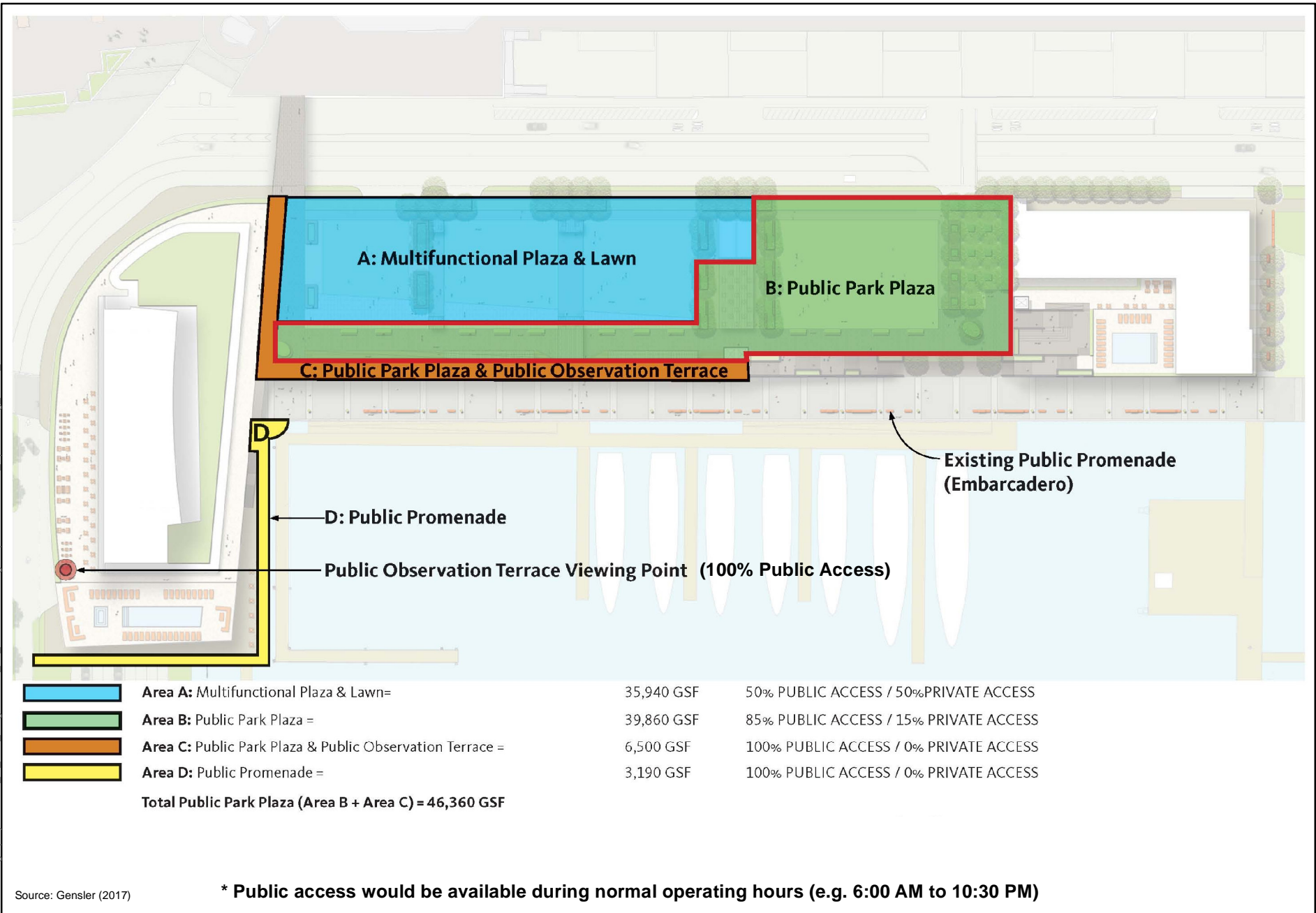
Public Plaza and Park Areas and Design Features

The proposed project would increase the total area of public plaza and park areas from approximately 30,300 square feet (0.70 acre) to approximately 85,490 square feet (1.96 acres). The public plaza and park areas would serve as resting and viewing areas for visitors and would include interpretive signage and public art. All the proposed public plaza and park areas would be designed with a combination of hardscape, drought-tolerant landscape, grass lawns, and artificial turf. In total, the proposed project would include four public plaza and parks areas and a public promenade spread throughout the project site. Table ES-1 identifies each of the public plaza and park areas and the percent of public and private usage of the areas. Figure ES-10 depicts the public plaza and park area locations, and Table ES-1 provides further detail on each area. The proposed project would also maintain and enhance the existing 35-foot-wide Embarcadero Promenade across the site. The existing promenade does not count toward the acreage of the proposed project's public plaza and park areas. The proposed project would enhance the existing Embarcadero Promenade by providing retail adjacent to the promenade; increased seating areas; public restrooms; connection of the lower-cost visitor-serving hotel and market-rate hotel tower with the promenade with small plazas or lobbies; and access to the parking structure from the promenade; additionally, an optional pedestrian bridge that would serve to connect pedestrian circulation from Downtown San Diego and SDCC to the Embarcadero Promenade.

As depicted on Figure ES-10, in addition to the proposed public plaza and park areas, the proposed project provides public access throughout the project site and connects to surrounding uses. One of the public access features includes the construction of a walkway around the market-rate hotel tower in order to maintain public access to the views along the Bay.



Figure ES-9
Proposed Water Transportation Center Rendering
Fifth Avenue Landing Project



Source: Gensler (2017)

Table ES-1. Proposed Public Plaza and Park Areas

Figure ES-8 Key	Title	Area (square feet)¹	Location	Access	Available to Public
A	Multifunctional Plaza and Lawn	35,940	Above the ballrooms, meeting rooms, and parking structure ²	Ground-level via the public Embarcadero Promenade; market-rate hotel tower; SDCC via the Optional Connecting Bridge	50% public access/50% private access/Managed by Operator
B	Public Park Plaza	39,860	Above the ballrooms, meeting rooms, and parking structure ²	Ground-level via the public Embarcadero Promenade; market-rate hotel tower; SDCC via the Optional Connecting Bridge	85% public access/15% private access/Managed by Operator
C	Public Park Plaza and Public Observation Terrace	6,500	Marina overlook	Ground-level via the public Embarcadero Promenade; market-rate hotel tower; SDCC via the Optional Connecting Bridge	100% public access
D	Public Promenade	3,190	Approximately 10-foot wide walkway along the southeast portion of the market-rate hotel tower; will include a public viewing deck.	Ground-level via the public Embarcadero Promenade	100% public access
Total		85,490			

¹ Values are approximate.

² This plaza and park area would be on the roof of the market-rate hotel tower ballroom and parking structure, described in *Market-Rate Hotel Tower*.

³ This plaza is associated with the lower-cost visitor-serving hotel, described in *Lower-Cost Visitor-Serving Hotel with Water Transportation Center*.

NOTE: A more detailed description of these areas can be found on Figure 3-16, *Landscape Concept Site Plan*.

Visitor-Serving Retail Storefronts

The proposed project would include up to five visitor-serving retail storefronts consisting of open-air cafés, food and beverage outlets, gift shops, and other visitor-serving retail establishments along the Embarcadero Promenade. These retail venues would total approximately 6,000 square feet and are intended to encourage activation of the existing Embarcadero Promenade. Figure ES-11 provides a site plan of the proposed retail storefronts.

Marina Expansion

The proposed project marina expansion would include waterside and landside components. The waterside components include adding new vessel slip space, constructing a new pile-supported pier, possibly constructing a breakwater with wave attenuation panels, and improving public access to the waterfront. The landside component involves removing the existing office trailer, WTC ticket booth, public restroom, and pavement; and reconstructing the bulkhead and anchors.¹

The existing vessel slip space would be expanded by an additional 57,696 square feet of pile-supported dock space. The marina would be constructed in two phases. Phase I would add 23 new marina slips ranging in size from 50 feet to 200 feet and would be constructed during the hotel construction timeframe. These slips would be accessible from the proposed pile-supported dock, which would be approximately 20 feet in width and extend approximately 439 feet for Phase I. A breakwater with wave attenuation panels may be included as part of the proposed project to reduce wave energy coming into the marina. The breakwater, located at the end of the proposed dock, would be approximately 400 linear feet and 20 feet in width.

Phase II would provide an additional 27 slips ranging in size from 50 feet to 240 feet and would be constructed when market conditions allow, approximately 5 years after the hotels are in operation, but no sooner. Total buildout would allow for 50 additional slips, for a combined total of 62 slips, including the existing 12 slips, to accommodate both small and large vessels. These slips would be accessible from the proposed pile-supported dock, which would be approximately 20 feet in width and extend approximately 922 feet into the San Diego Bay for Phase II with a breakwater of approximately 630 linear feet and 20 feet in width. Each slip would have shoreside power, as well as connections to the City's water and sewer systems.

The possible fleet mix of the expanded marina would allow for smaller boats to be integrated into the marina while at the same time allowing larger vessels to dock. Figures ES-12 and ES-13 depict the proposed Phase I and Phase II marina layouts, respectively, and the proposed dock and slip lengths and quantities. The proposed fleet mix may change slightly, but Figures ES-10 and ES-11 represent the worst-case scenario (i.e., result in the most impacts) for purposes of the EIR analysis.

Improvements to public access as a result of the proposed project include signage and dock space for larger and smaller vessels.

¹ Note that the existing marina office would be replaced with the WTC and enhanced as part of the lower-cost visitor-serving hotel development component.

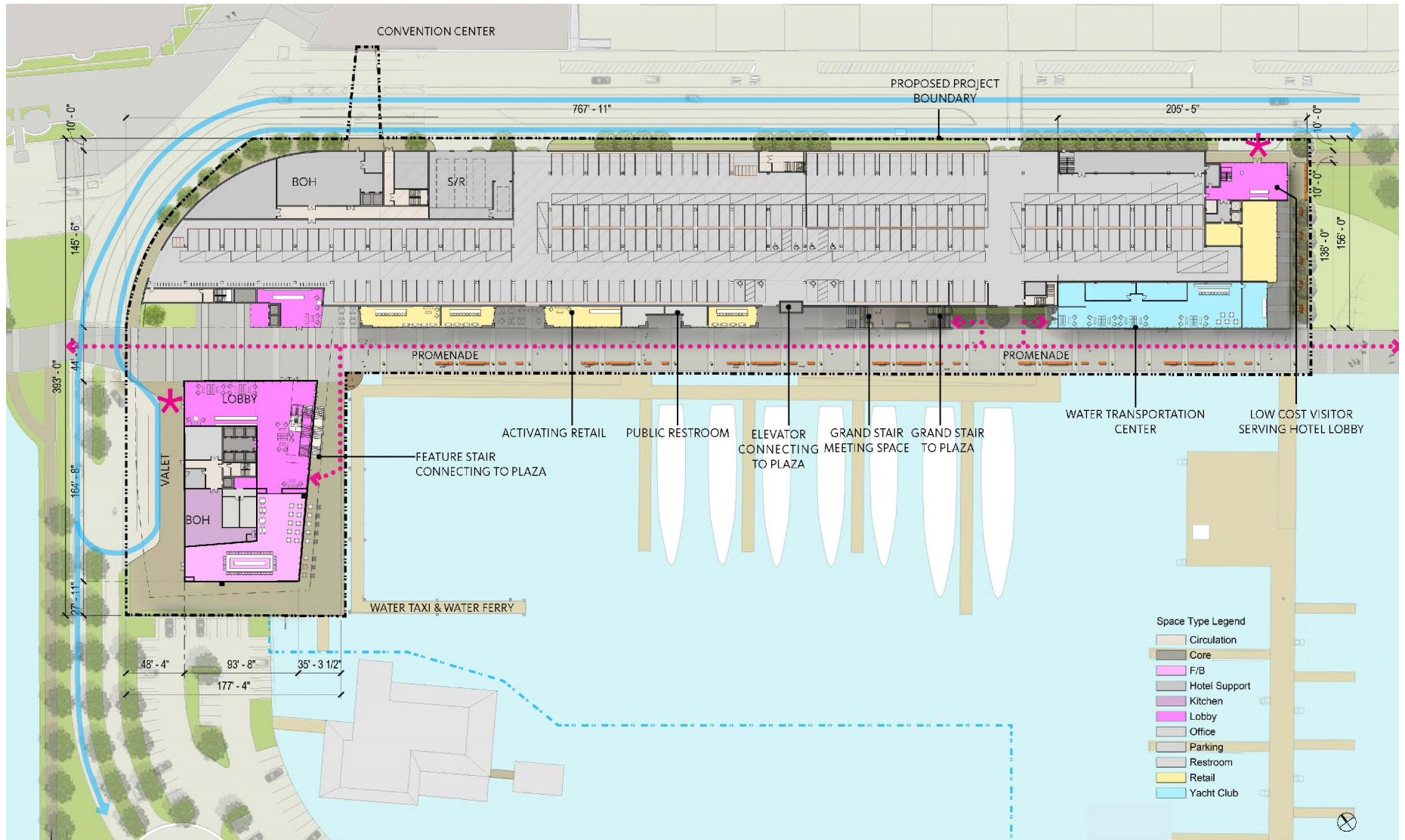
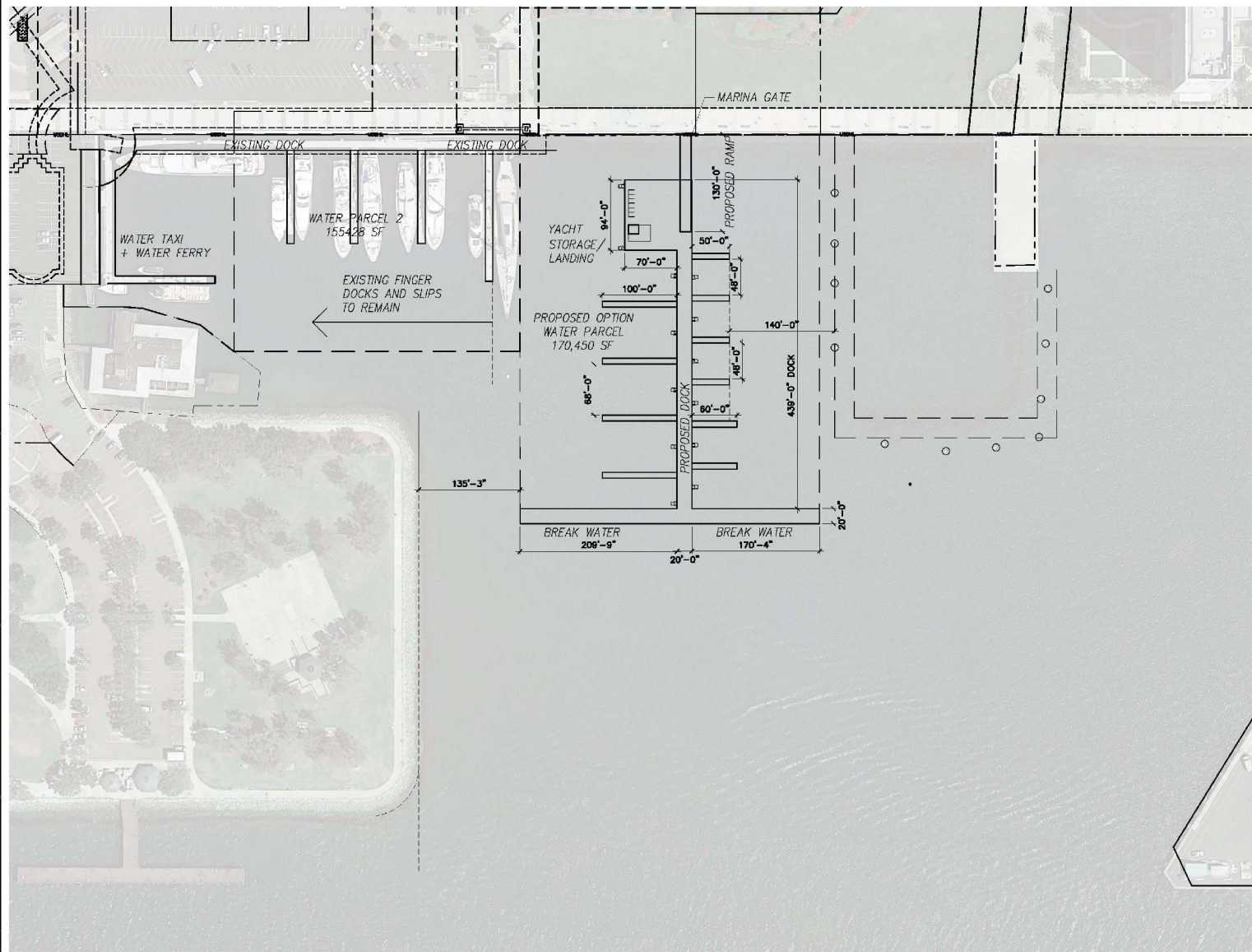


Figure ES-11
Proposed Site Plan at the Ground Level
Fifth Avenue Landing Project



LEGEND

COLD IRONING POWER MODULE (6' X 8')	12
FINGER DOCK (6' X 100')	
FINGER DOCK (6' X 80')	
FINGER DOCK (6' X 50')	

AREA SF SUMMARY

Proposed Construction	Qty	Length	Width	SF
50 Finger Dock	4	50	8	1600
60 Finger Dock	2	60	8	960
200 Finger Dock	4	100	8	3200
Yacht Storage / Landing	1	94	70	6580
Cold Ironing Power Module	13	6	8	624
Main Dock	1	439	20	8780
Break Water	1	400	20	8000
Ramp	1	130	14	1820
TOTAL AREA SQUARE FT				31564

WATER PARCEL AREA SF SUMMARY

WATER PARCEL 2	155,428 SF
OPTION WATER PARCEL	170,450 SF
WATER PARCEL 3	253,100 SF
TOTAL	500,980 SF

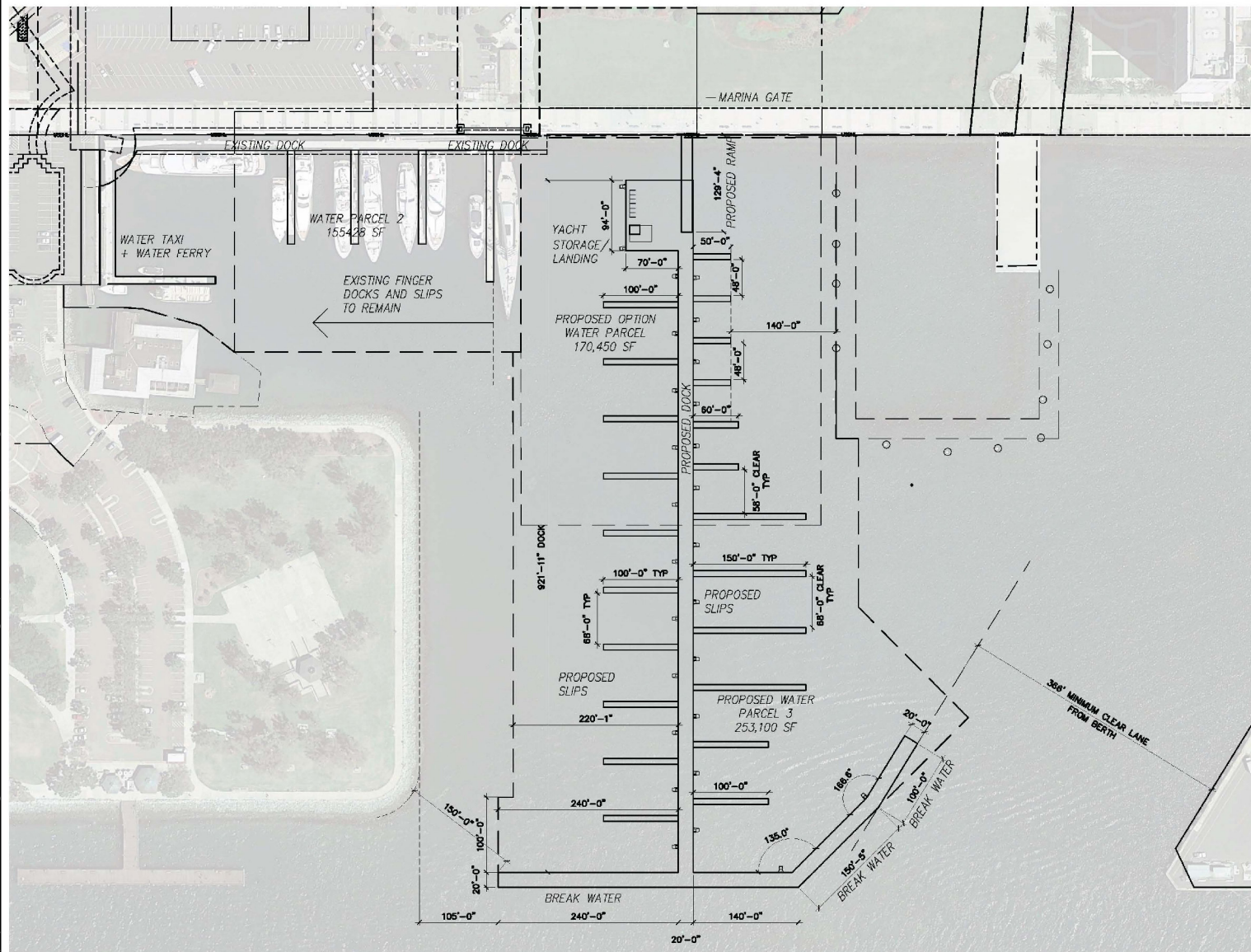
(37,150 SF REDUCTION)

GENERAL NOTES

1. DIMENSIONS AND CLEARANCES ARE APPROXIMATE AND BASED ON A GOOGLE EARTH IMAGE. ALL DIMENSIONS AND CLEARANCES TO BE VERIFIED BY A CIVIL ENGINEER WITH A ALTA SURVEY.

ESTIMATED SLIP QUANTITY SUMMARY

PHASE I PROPOSED BOAT SLIPS	
SLIP SIZE	QTY
50' SLIP LENGTH	8
60' SLIP LENGTH	4
75' SLIP LENGTH	2
100' SLIP LENGTH	7
175' SLIP LENGTH	1
200' SLIP LENGTH	1
TOTAL NO. OF SLIPS	23



LEGEND

COLD IRONING POWER MODULE (6' X 8')

FINGER DOCK (6' X 150')

FINGER DOCK (6' X 100')

FINGER DOCK (6' X 80')

FINGER DOCK (6' X 50')

AREA SF SUMMARY

Proposed Construction	Qty	Length	Width	SF
50' Finger Dock	4	50	8	1600
60' Finger Dock	2	60	8	960
100' Finger Dock	12	100	8	9600
150' Finger Dock	4	150	8	4800
Cold Ironing Power Module	27	6	8	1296
Yacht Storage / Landing	1	94	70	6580
Main Dock	1	922	20	18440
Break Water	1	630	20	12600
Ramp	1	130	14	1820
TOTAL AREA SQUARE FT				57696

WATER PARCEL AREA SF SUMMARY

WATER PARCEL 2	155,428 SF
OPTION WATER PARCEL	170,450 SF
WATER PARCEL 3	253,100 SF
TOTAL	579,978 SF

GENERAL NOTES

1. DIMENSIONS AND CLEARANCES ARE APPROXIMATE AND BASED ON A GOOGLE EARTH IMAGE. ALL DIMENSIONS AND CLEARANCES TO BE VERIFIED BY A CIVIL ENGINEER WITH A ALTA SURVEY

ESTIMATED SLIP QUANTITY SUMMARY

PHASE II PROPOSED BOAT SLIPS	
SLIP SIZE	QTY
50' SLIP LENGTH	8
60' SLIP LENGTH	4
75' SLIP LENGTH	2
100' SLIP LENGTH	26
150' SLIP LENGTH	9
240' SLIP LENGTH	1
TOTAL NO. OF SLIPS	50

The proposed landside marina improvements would include relocating the existing marina office to the promenade level of the lower-cost visitor-serving hotel. In 2015, the ferry service transported approximately 290,000 passengers, and in 2016 it transported approximately 222,672 passengers. At this time, there are no plans in place to expand the ferry service; accordingly, an expansion of service is not analyzed in this EIR. In addition, the project site operates an existing water taxi service, which is a pre-arranged service that provides transportation throughout the Bay to groups of no fewer than 20 people. The service is typically only used a few times per year. This service would continue to be operated at the project site with the implementation of the proposed project.

Parking

A one-level parking structure would be incorporated into the development between the market-rate hotel tower and the lower-cost visitor-serving hotel. As depicted on Figure ES-11, the parking structure would be constructed at ground level and would be beneath the market-rate hotel tower meeting space/ballrooms and the rooftop public plaza and park areas. The proposed visitor-serving retail (as described in *Visitor-Serving Retail Storefronts*) would mask the parking structure from public view along the promenade. The capacity for approximately 263 onsite parking spaces, including both striped and valet parking would be provided, and access to the proposed parking structure would be provided on Convention Way.

The proposed parking structure would incorporate the use of natural light, light-emitting diode (LED) lighting, and natural Bay breezes to cool the garage. Limited mechanical systems would be needed to ventilate or provide fresh air to the garage. Approximately 29 electric car charging stations would also be installed to accommodate electric vehicles.

As part of the existing Amended, Restated and Combined (ARC) lease between the SDCC Corporation and the District for the project site, the project proponent has the right to seek 110 parking spaces in the offsite District-owned SDCC garage contingent upon availability, amendments to the existing Management Agreement, and the District issuing a lease agreement to the project proponent for the use of the 110 offsite parking spaces. At this time, there is no excess parking available in the SDCC garage, and it is not reasonably foreseeable that such parking would be available to the project proponent. However, in the event 110 parking spaces become available and the remaining aforementioned conditions are satisfied, the EIR analyzes the proposed project with and without the offsite parking spaces.

Nearby parking facilities may be available for shared parking; however, the project proponent currently does not have any contractual rights to use any other parking garage, and no parking has been set aside for the proposed project.

Parking supply and demand are discussed in detail in Chapter 4, Section 4.12, *Transportation, Circulation, and Parking*.

Onsite Circulation and Wayfinding

Visitors and hotel guests would access the project site from Harbor Drive and Park Boulevard, which turns into Convention Way. Convention Way would retain its current alignment and would be used for car and truck access to the project site during construction and operation of the proposed project.

Public signage along the promenade would illustrate San Diego Bay history, including its past and present working waterfront, interpretive signage, and location and wayfinding maps. This signage would conform to the South Embarcadero Urban Design Guidelines and California Coastal Access signage statewide program. These guidelines include utilizing banners on street lights and minimizing signs that obstruct views of the San Diego Bay.

Signage off tidelands would be designed with input from and in cooperation with the SDCC, City of San Diego, and the District. Signage locations are proposed to include areas along Harbor Drive, Fifth Avenue, Convention Way, and the Gaslamp and Ballpark Districts.

Landscape and Water Quality Design Features

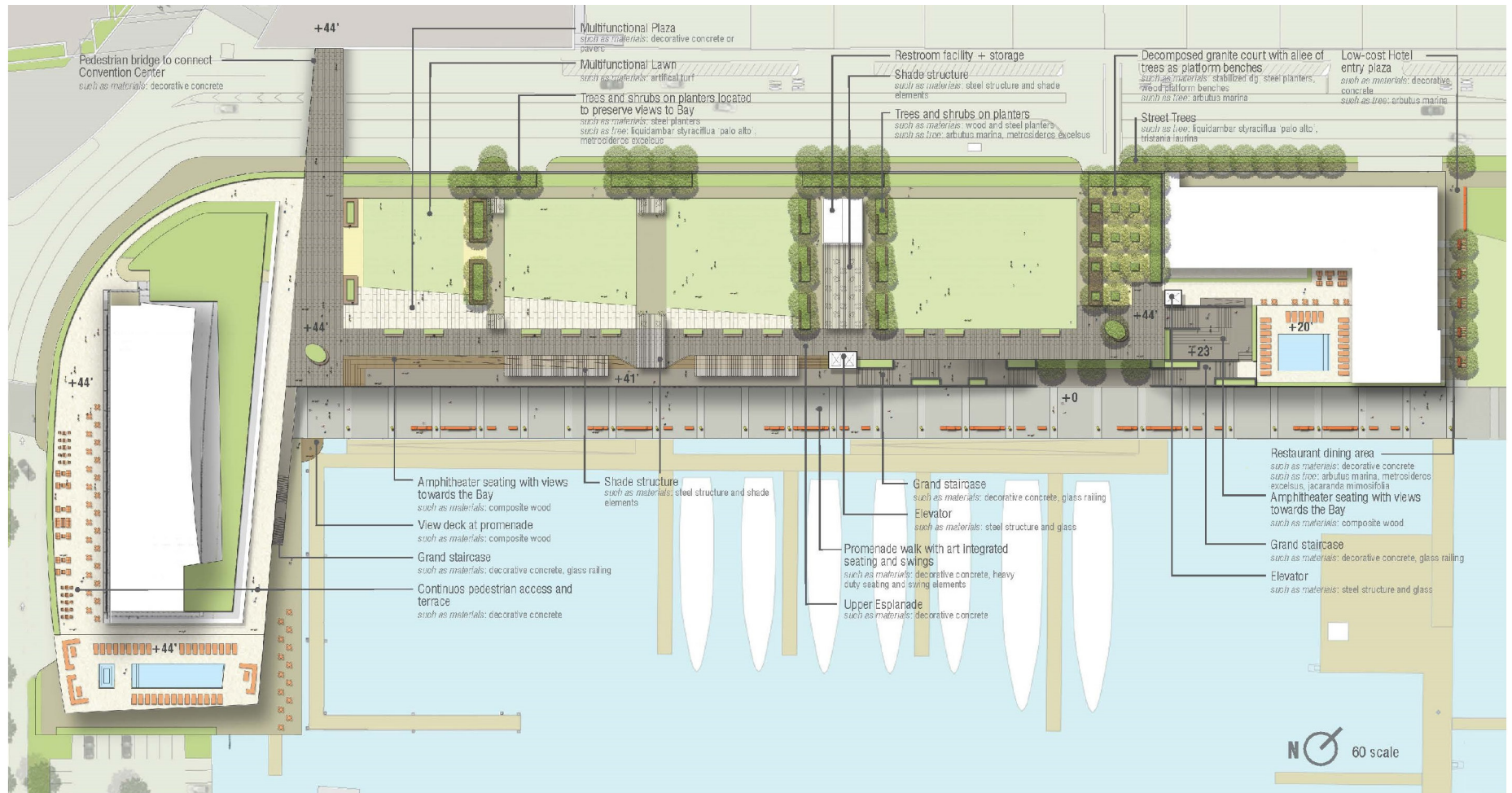
The proposed project would require the removal of 39 ornamental trees located within the existing parking lot area and park/plaza area. Figure ES-14 provides the conceptual landscape plan for the proposed project. The proposed project would include multiple trees and shrubs throughout the project site. Figures ES-15 and ES-16 provide the existing and proposed impervious and pervious surfaces on the site. The proposed project would increase the impervious surface by 18,540 square feet. The proposed project would include stormwater protection systems, including the capture of runoff, and various landscape measures to improve Bay water quality. Landscaping would consist of drought-tolerant plants, and most runoff water would be recaptured through a filtered system that employs landscape troughs and other measures. Permeable surfaces would be used in place of concrete or asphalt where feasible.

The marina would be a zero-discharge facility. A marina Best Management Practice Plan would be drafted and implemented to ensure that marina operations do not degrade Bay water quality. The plan would be approved by the District prior to commencement of the marina development. Components of the plan include the use of educational materials to be provided to boat owners and their crews. Docking agreements would contain specific use restrictions to prevent degradation of water quality. The marina operator would restrict boat repairs and cleaning operations. Hull bottom scraping and the use of toxic detergents used to clean vessels would be prohibited, and no overwater repairs would be allowed. Refueling would occur off site. The marina's onsite manager would enforce these restrictions and discharge any dock user who fails to comply with these restrictions after verbal warnings have been provided.²

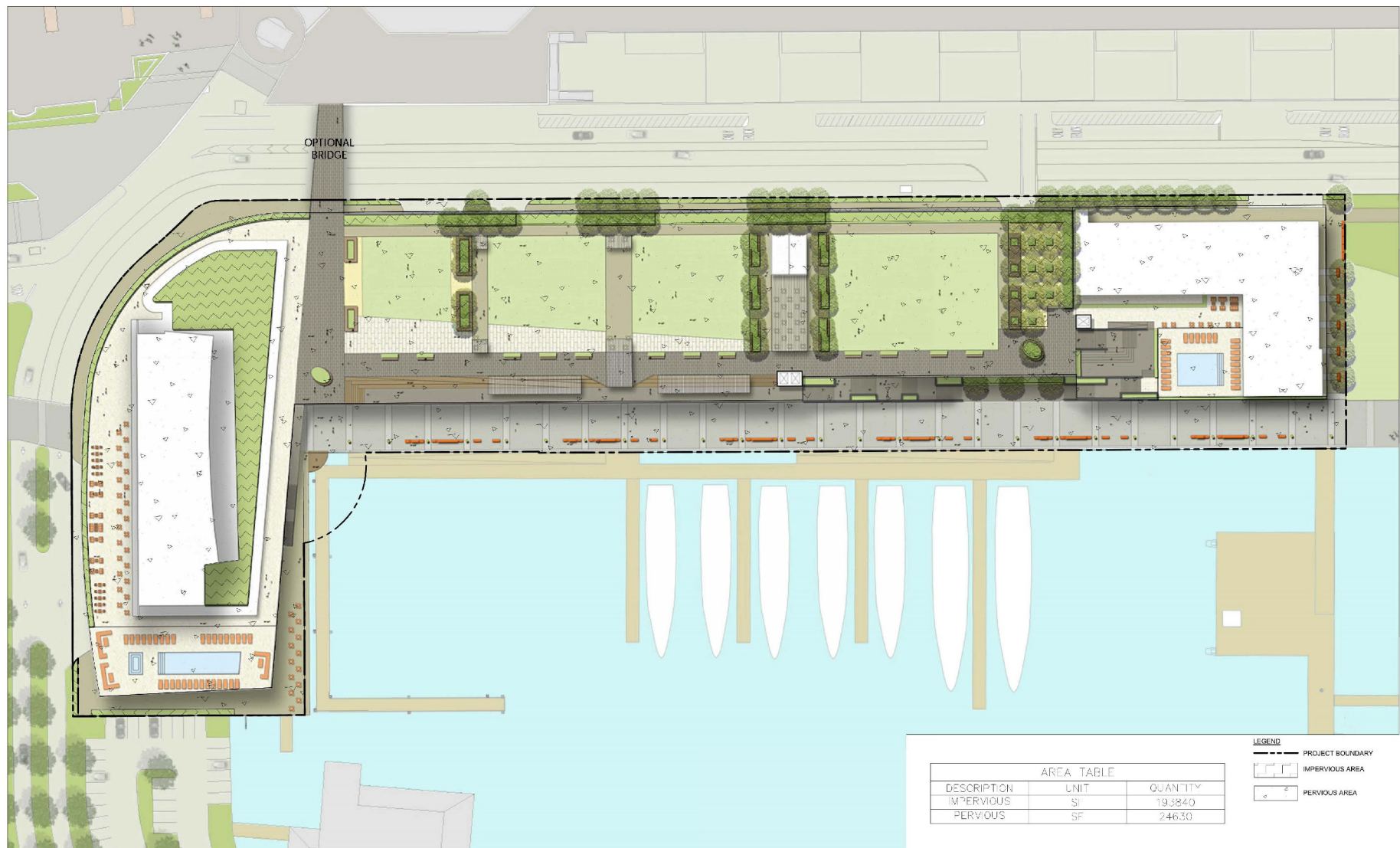
Port Master Plan Amendment

As discussed further in Chapter 2, *Environmental Setting*, the current certified Port Master Plan (PMP) designates a portion of the landside portion of the project site for the SDCC Phase III expansion. In addition, other land and water uses proposed as part of the project are not consistent with the existing PMP land and water use designations. Therefore, the proposed project proposes an amendment to PMP Planning District 3, Centre City Embarcadero. This PMPA is proposed to change portions of the existing land and water use designations and to update the PMP maps, text, and tables to reflect the proposed project and corresponding land and water uses (see Figure ES-17). In addition, as shown in Figure ES-17, the PMPA identifies up to eight new designated vista areas to replace the five existing designated vista areas that would be displaced by the proposed project.

² These features and measures are also included within Mitigation Measure MM-HWQ-1 in Section 4.8, *Hydrology and Water Quality*.







The proposed PMPA land and water use designation changes include, but are not limited to, the following.

- Commercial Recreation to Street
- Street to Commercial Recreation
- Specialized Berthing to Recreational Boat Berthing
- Ship Navigation Corridor to Recreational Boat Berthing
- Promenade to Commercial Recreation
- Park to Commercial Recreation
- Commercial Recreation to Park

The proposed PMPA is provided in Appendix C.

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 August 18, 2016, and ending on September 16, 2016. The NOP is included as Appendix A.

A total of 10 comment letters were received during the NOP public review period. The primary issues raised related to biological resources; greenhouse gases (GHGs); hazards and hazardous materials; utilities; transportation, parking, and traffic; and inconsistency with the SDCC Phase III Expansion project previously approved by the District. 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 | • Hydrology and Water Quality |
| • Air Quality and Health Risk | • Land Use and Planning |
| • Biological Resources | • Noise and Vibration |
| • Cultural Resources | • Public Services and Recreation |

- Geology and Soils
- Greenhouse Gas Emissions and Climate Change
- Hazards and Hazardous Materials
- Transportation, Circulation, and Parking
- Tribal Cultural Resources
- Utilities and Energy Use

Table ES-2, 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-2 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 agriculture and forestry resources, mineral resources, and population 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*.

Summary of Project Alternatives

The following alternatives are analyzed in detail in Chapter 7, *Alternatives*. 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

Under the No Project/No Build Alternative, the project site would continue to operate as it currently does until the expiration of the current ARC Lease. The proposed project would not occur and the existing site would retain a 35-foot Embarcadero Promenade, parking lots used for parking and staging for special events associated with SDCC, Fifth Avenue Landing superyacht marina, and open grass area used as a public park. The marina would not be expanded and the existing 12 boat slips would remain. The WTC would not be relocated and upgraded under this alternative. No market-rate hotel tower, lower-cost visitor-serving hotel, retail along the Embarcadero Promenade, parking structure, ballroom, additional public parks or plazas, and marina expansion would occur.

Alternative 2 – No Project/Port Master Plan Consistency Alternative (SDCC Phase III Expansion)

Under the No Project/Port Master Plan Consistency Alternative, the SDCC Phase III Expansion and Expansion Hotel would be constructed as entitled in the current PMP. The proposed Expansion Hotel would occur outside of the proposed project area and, therefore, the focus of this alternative is the portion of the SDCC Phase III Expansion that would occur within the project site. This analysis assumes that the City of San Diego either obtains property rights to the site or constructs the expansion after the expiration of the ARC Lease term. Under the current PMP, the SDCC Phase III Expansion includes the expansion of the existing Convention Center, which would add approximately 220,150 square feet of exhibit hall space, approximately 101,500 square feet of meeting rooms, and approximately 78,470 square feet of ballroom space to the existing facility. Public amenities include a 5-acre rooftop park/plaza. It would be accessible to the public with lighted paths, seating areas, an open lawn/performance area, and several observation vistas. Spaces on the rooftop park/plaza would range from grand areas where events can take place to more intimate, contemplative areas. This alternative would not involve any in-water work.

Alternative 3 – No Net New Marina Alternative

Under the No Net New Marina Alternative, the proposed project would occur as proposed with the development of the market-rate hotel tower, lower-cost visitor-serving hotel, retail along the Embarcadero Promenade, parking structure, ballroom, and public parks and plazas; however, the marina would not be expanded. The marina would continue its current operation of the existing 12 boat slips. Alternative 3 would include the proposed landside marina improvements of relocating the existing marina office to the promenade level of the lower-cost visitor-serving hotel. Under Alternative 3, the existing Fifth Avenue Landing ferry and taxi service would continue operation at the project site. The No Net New Marina Alternative is intended to avoid or substantially lessen the proposed project-related significant impacts on biological resources related to loss of eelgrass and open water habitat and hazards and hazardous materials related to waterside sediment contamination and damage to the engineered cap.

Alternative 4 – Phase I Only Marina Alternative

Under the Phase I Only Marina Alternative, the proposed project would occur as proposed, but the marina expansion would only include Phase I. Phase II of the marina expansion, which would add 27 slips to the marina, would be eliminated. The Phase I waterside component would add 23 new marina slips ranging in size from 50 feet to 200 feet and would be constructed concurrently with the proposed hotels. Phase I would include the proposed pile-supported dock, which would be approximately 20 feet in width and extend approximately 439 feet. A breakwater with wave attenuation panels may be included as part of Alternative 4 to reduce wave energy coming into the marina. The breakwater, located at the end of the proposed dock, would be approximately 400 linear feet and 20 feet in width. The water transportation office would be relocated and upgraded under this alternative, and the Fifth Avenue Landing ferry and water taxi service would continue its operation at the project site. The Phase I Only Marina Alternative is intended to substantially lessen the proposed project-related significant impacts on biological resources related to loss of eelgrass and open water habitat and hazards and hazardous materials related to waterside sediment contamination and damage to the engineered cap.

Alternative 5 – Reduced Density Alternative

Under the Reduced Density Alternative, the market-rate hotel tower would be reduced by 20%, from 850 rooms to 680 rooms, and the lower-cost visitor-serving hotel would be reduced by 20%, from 565 beds to 452 beds. The height of the hotel tower would be reduced from 498 feet (45 stories) to 428 feet (38 stories). With the reduction in hotel rooms, the number of required onsite parking spaces would be reduced by approximately 93 spaces. All other project components of the proposed project including the retail along the Embarcadero Promenade, public plaza and park areas, ballroom, parking structure, and marina expansion would remain the same as the proposed project. The Reduced Density Alternative is intended to avoid or substantially lessen proposed project-related significant impacts related to transportation, circulation, and parking by reducing the number of hotel guests that would use the site. In addition, Alternative 5 would result in a 20% reduction in air quality emissions, GHG emissions, and energy consumption.

Alternative 6 – Below Grade Parking Alternative

Under the Below Grade Parking Alternative, 478 parking spaces would be provided in a concrete parking structure, which would include a subterranean parking level approximately 12 feet below

grade. The parking structure would span from the lower-cost visitor-serving hotel to the first major stormwater discharge outfall. The below grade parking structure would provide a total of 478 parking spaces. The P1 level would include 190 standard stall spaces, 9 Americans with Disabilities Act (ADA) spaces, and 64 valet spaces. The P2 level would include 167 standard spaces and 48 valet spaces. Valet parking would be provided between the drive aisles on both the P1 and P2 levels. Public parking would be provided on both P1 and P2 levels. The entrance to the parking structure would be located on Convention Way, and public parking signage would be provided along Convention Way. Electrical car charging stations would also be incorporated into the parking structure. All other project components proposed under the proposed project would be implemented under Alternative 6, including the development of the market-rate hotel tower, lower-cost, visitor-serving hotel, retail along the Embarcadero Promenade, ballroom, public parks and plazas, and expansion of the marina. The Below Grade Parking Alternative is intended to avoid or substantially lessen the significant parking impacts of the proposed project.

Environmentally Superior Alternative

Pursuant to CEQA, the EIR is required to identify the environmentally superior alternative. Although the No Project/No Build Alternative (Alternative 1) reduces the greatest number of significant impacts, CEQA requires that when the environmentally superior alternative is the No Project/No Build Alternative, another alternative should be identified. The No Project/Port Master Plan Consistency Alternative (Alternative 2) reduces the second largest number of significant impacts; however, this alternative would not achieve most of the project objectives and is also a No Project alternative. Considering the importance of parking in the area, the Below Grade Parking Alternative (Alternative 6) would add additional parking on site and meet all the basic project objectives. However, this alternative would result in similar and, in some cases, greater impacts than the proposed project. Therefore, the No Net New Marina Alternative (Alternative 3) is considered the environmentally superior alternative because it would reduce the greatest number of impacts while still achieving most of the project objectives. Alternative 3 would eliminate the marina expansion, which would avoid all of the waterside impacts that would result under the proposed project; the alternative would also result in reduced impacts on biological resources, GHG emissions, hazardous materials, hydrology and water quality, and noise and vibration. In addition, Alternative 3 would meet the project objectives with the exception of part of Objective #4 because the project would not include an expanded marina. However, all other project components would be incorporated, including an infill development that provides a full-service hotel that is comparable in size to adjacent hotels, a lower-cost visitor-serving hotel, plaza and park areas, restaurant and retail space, a water transportation center, improved links to the waterfront, and sustainable development features.

Table ES-2. Project Impacts and Mitigation Measures

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
4.1 Aesthetics and Visual Resources				
Project Impacts				
Substantial Adverse Effect on a Scenic Vista	Impact-AES-1: Visual Impacts due to Obstructed Views Within a Vista Area During Project Construction. The protrusion of large construction equipment, including cranes, scaffolding, and other construction materials, into the viewshed of the SDCC rooftop plaza would result in a temporary significant impact.	PS	MM-AES-1: Construction Screening and Fencing. The project proponent shall install construction-screening fencing around the entire perimeter of the project site that would shield construction activities from sight and prior to issuance of demolition permits, the District's Development Services Department shall confirm such fencing is depicted on the appropriate demolition and construction plans. Construction screening shall include, at a minimum, installation of 8-foot-tall fencing for the duration of the construction period that is covered with view-blocking materials, such as tarp or mesh in a color that blends in with the existing environment such as green or blue.	SU
	Impact-AES-2: Visual Impacts due to Obstructed Views Within a Vista Area During Project Operations. Operation of the proposed project would substantially interfere with existing expansive views of the San Diego Bay from the existing SDCC plaza and the SDCC grand staircase.	PS	MM-AES-2: Install Wayfinding and Public Accessibility Signage. Prior to the issuance of occupancy permits, the project proponent shall post wayfinding signage and signage at the grand staircase, market-rate hotel tower staircase, public observation terrace, optional pedestrian bridge, and two locations along the existing Embarcadero Promenade, that directs visitors to the proposed public plaza and park areas on the rooftop of the parking structure and hotel ballrooms as well as the walkway around the market-rate hotel tower (the areas identified as Exterior Areas B, C, and D on Figure 3-12 in Chapter 3, <i>Project Description</i> , of the EIR), and designates the areas as available to the public with open hours listed (i.e., 6:00 a.m. to 10:30 p.m.). The project proponent shall submit the signage characteristics (e.g., size, color, materials) to the District's Development Services Department for	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>review and approval. Photographic proof of the wayfinding signage and designation signage shall be submitted to the District's Development Services Department prior to issuance of the certificate of occupancy. In addition, the project proponent shall allow the District to conduct periodic inspections to ensure that this space remains publicly accessible. The wayfinding signage shall clearly direct the public to the public plaza and park areas and public observation terrace and indicate that the space is open to the public except during certain circumstances consistent with the PMP Amendment.</p> <p>MM-AES-3: Transparent Fencing Materials at Pool Deck. Prior to the issuance of the certification of occupancy for the market-rate hotel tower, the project proponent shall install transparent fencing in front of the pool to separate the pool deck from the public observation terrace viewing point on the second floor of the west side of the market-rate hotel tower, using transparent materials such as glass or cable rail. Prior to issuance of a building permit for the market-rate hotel tower, the District's Development Services Department shall confirm such transparent fencing is depicted on the appropriate building plans.</p>	
	<p>Impact-AES-3: Visual Impacts due to Displacement of Existing Designated Vista Areas During Project Operations. Operation of the proposed project would displace five vista areas that are designated in the PMP at the planned rooftop plaza and park areas.</p>	PS	<p>MM-AES-4: Designated Public Vista Areas. To replace the five public vista areas currently designated on the project site and/or the SDCC Expansion Rooftop park, the PMP Amendment shall include five new public vista points as shown on Figure 3-19; four shall be located along the public observation terrace on the rooftop public plaza and park areas and the fifth shall be located on the west end of the market-rate hotel tower terrace (public observation terrace viewing point, Figure 3-12). These designated vista points shall be delineated with signage and open to the public at all times.</p>	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Substantially Damage Scenic Resources	Implementation of the proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	LS	No mitigation is required.	LS
Existing Visual Character or Quality	Implementation of the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings.	LS	No mitigation is required.	LS
New Source of Substantial Light or Glare	<p>Impact-AES-4: Temporary New Source of Nighttime Lighting During Construction. Construction of the proposed project would potentially introduce a new source of temporary nighttime lighting from the use of overnight security lights at the project site.</p> <p>Impact-AES-5: New Permanent Source of Glare Generated by the Proposed Market-Rate Hotel Tower. The proposed market-rate hotel tower would have a curtainwall façade that would use architectural finishes and façade materials that would increase the amount of glare produced at the project site by moderate amounts, which would represent a significant new source of substantial glare at the project site compared to existing conditions that would potentially affect daytime views in the area.</p>	PS	<p>MM-AES-5: Down-shield All Construction Security Lighting. The project proponent shall ensure that all overnight construction security lighting used at the project site is down-shielded to prevent any light spillover off site consistent with City of San Diego regulations on glare and outdoor lighting (Municipal Code Sections 142.0730 and 142.0740).</p> <p>MM-AES-6: Incorporate the Use of Reduced Glare Building Materials. The proposed market-rate hotel tower shall incorporate non-reflective exterior building materials in its design, and any glass incorporated into the façade of the building shall either be of low reflectivity or accompanied by a non-glare coating. Prior to issuance of a building permit for the market-rate hotel tower, the District's Development Services Department shall confirm such non-reflective materials and low reflectivity or non-glare coating are depicted on the appropriate building plans.</p>	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Cumulative Impacts				
The proposed project's incremental contribution to cumulative aesthetics and visual resources impacts would not be cumulatively considerable.				
4.2 Air Quality and Health Risk				
Project Impacts				
Conflict with Applicable Air Quality Plan	Impact-AQ-1: New Land Use Designations not Accounted for in the RAQS and SIP. The proposed project would re-designate Commercial Recreation to Street, Street to Commercial Recreation, Specialized Berthing to Recreational Boat Berthing, Ship Navigation Corridor to Recreational Boat Berthing, Promenade to Commercial Recreation, Park to Commercial Recreation to Park. 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 the proposed land use and the intensity proposed are not consistent with the current RAQS and SIP.	PS	MM-AQ-1: Update the RAQS and SIP with New Growth Projections. Prior to the San Diego Air Pollution Control District's next review of the RAQS, the District shall coordinate with the San Diego Air Pollution Control District to amend the growth assumptions using the Port Master Plan Amendment. This includes changing the designation of Commercial Recreation to Street, Street to Commercial Recreation, Specialized Berthing to Recreational Boat Berthing, Ship Navigation Corridor to Recreational Boat Berthing, Promenade to Commercial Recreation, Park to Commercial Recreation, and Commercial Recreation to Park within the proposed project site.	LS
Violate an Air Quality Standard	Impact-AQ-2: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Construction. Project emissions during construction, before mitigation, would exceed the San Diego County SLTs for VOC. The contribution of project-related emissions is considered significant because the	PS	MM-AQ-2: Use Low-VOC Interior and Exterior Coatings During Construction. During construction, the project proponent shall use low-VOC coatings for all surfaces that go beyond the requirements of San Diego Air Pollution Control District Rule 67.0, and have a VOC content of 75 grams per liter or less. Prior to the commencement of construction activities, the project proponent shall submit a list of coatings to be used and their respective VOC content to the District's	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	project would exceed thresholds 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.		<p>Development Services Department and shall submit a report verifying the use of said low-VOC coatings. The District may conduct inspections during construction to verify the use of low-VOC coatings.</p> <p>MM-AQ-3: Limit Soil Hauling Truck Counts during Excavation to Reduce Daily Construction-Related Emissions. During construction, the project proponent shall ensure that daily heavy-duty truck counts during soil hauling do not exceed 85 trucks per day. During excavation work (Phase 2.1), the project proponent shall submit record of daily truck counts to the District's Development Services Department. The District may conduct inspections during construction to verify the number of trucks do not exceed 85 on a given day.</p>	
Result in a Cumulatively Considerable Net Increase of a Criteria Pollutant	<p>Impact-AQ-3: Cumulative Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Construction. Project emissions during construction, before mitigation, would exceed the San Diego County SLTs for VOC, and when combined with other nearby past, present, and probable future projects, the proposed project's contribution would be cumulatively considerable. The contribution of project-related emissions is considered significant because the project would exceed thresholds 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.</p>	PS	Implement MM-AQ-2 and MM-AQ-3 , as described above.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Expose Sensitive Receptors to Substantial Pollutant Concentrations	Impact-AQ-2 , as described above.	PS	Implement MM-AQ-2 and MM-AQ-3 , as described above.	LS
Create Objectionable Odors	Implementation of the proposed project would not create objectionable odors affecting a substantial number of people.	LS	No mitigation is required.	LS
Cumulative Impacts				
Conflict with Applicable Air Quality Plan	Impact-C-AQ-1: New Land Use Designations not Accounted for in the RAQS and SIP. The proposed project would redesignate Commercial Recreation to Street, Street to Commercial Recreation, Specialized Berthing to Recreational Boat Berthing, Ship Navigation Corridor to Recreational Boat Berthing, Promenade to Commercial Recreation, Park to Commercial Recreation, and Commercial Recreation to Park. 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.	PS	Implement MM-AQ-1 , as described above.	LS
Result in a Cumulatively Considerable Net Increase of a Criteria Pollutant	Impact-C-AQ-2: Emissions in Excess of Cumulative Thresholds during Construction. Emissions during construction the proposed project would exceed the cumulative San Diego County SLTs for VOC.	PS	Implement MM-AQ-2 and MM-AQ-3 , as described above.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
4.3 Biological Resources				
Project Impacts				
Substantial Adverse Effect on any Candidate, Sensitive, or Special-Status Species in Local or Regional Plans, Policies or Regulations	Impact-BIO-1: Water Quality Impairment Impacts on California Least Tern and California Brown Pelican Foraging. Construction and operation of the proposed project will lead to water quality impairment in San Diego Bay, which will inhibit foraging of both California least tern and California Brown Pelican by reducing water clarity and making it more difficult to identify prey species within the project site.	PS	MM-BIO-1: Avoid California Least Tern Breeding Season or Implement Construction Measures to Eliminate Impacts on California Least Tern Breeding. The project proponent shall schedule and complete all in-water construction activity outside of the nesting season for California least tern (generally between mid-April and late September). Should in-water construction occur during the California least tern nesting season, the following construction measures shall be implemented in accordance with regulations, including CWA Section 401, the NPDES permit, and Stormwater Management and Discharge Control Ordinance: <ul style="list-style-type: none"> The contractor shall deploy a turbidity curtain around the pile driving areas to restrict the visible surface turbidity plume to the area of construction and pile driving. It shall consist of a hanging weighted curtain with a surface float line and shall extend from the surface to 20 feet down into the water column. The goal of this measure is to minimize the area in which visibility of prey by terns is obstructed. The contractor shall retain a qualified ornithologist (with knowledge of the species to be surveyed) approved by the District who shall conduct monitoring within 500 feet of construction activities to identify presence of terns displaying foraging behavior (e.g., searching and diving) and assess adverse impacts, if any, on California least terns. Should adverse impacts on terns occur (e.g., agitation or startling during foraging activities), construction shall cease until least terns have left the project site. 	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<ul style="list-style-type: none"> The contractor shall follow all regulatory requirements to minimize reduction in water quality in San Diego Bay. Construction of the proposed project would include preparation and implementation of a SWPPP, and implementation of appropriate regulatory permits, including the CWA Section 401 Water Quality Certification. A full explanation of these requirements can be found in Section 4.8, <i>Hydrology and Water Quality</i>. <p>Implement MM-HWQ-1 and MM-HWQ-2, as described below under <i>Hydrology and Water Quality</i>.</p>	
	Impact-BIO-2: Potential Disruption or Injury of California Least Tern, Green Sea Turtle, and Marine Mammals During Pile Driving Activities. Pile driving activities would potentially generate a noise disturbance to California least tern from in air pile driving noise. Pile driving could also generate enough underwater noise to injure (Level A Harassment) or alter behavior (Level B Harassment) of both green sea turtle and marine mammals.	PS	<p>Implement MM-BIO-1, as described above.</p> <p>MM-BIO-2: Implement a Marine Mammal and Green Sea Turtle Monitoring Program During Pile Driving Activities. Prior to construction activities involving in-water pile driving, the project proponent shall prepare and implement a marine mammal and green sea turtle monitoring program. This monitoring program shall be approved by the District and shall include the following requirements:</p> <ul style="list-style-type: none"> For a period of 15 minutes prior to the start of in-water construction, a qualified biologist, retained by the project proponent and approved by the District's Director of Real Estate Development or designee of the District, shall monitor a 384-foot surface radius around the active pile driving areas to ensure that special-status species are not present. The construction contractor shall not start work if any observations of special-status species are made prior to starting pile driving. 	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<ul style="list-style-type: none"> • In-water pile driving within the marina shall begin with soft starts, gradually increasing the force of the pile driving. • Level B harassment of marine mammals and green sea turtles (harassment level leading to behavior modification) from pile driving shall be avoided at a distance of 384 feet. • Monitoring by a qualified biologist for marine mammals and green sea turtles within 384 feet shall be implemented during all pile driving activities to prevent impacts on these species by identifying when they are approaching or within 384 feet, and by coordinating with construction crews to halt pile driving until the species have left this area. • All monitors must meet the minimum requirements as defined by the National Oceanic Atmospheric Administration's <i>Guidance for Developing a Marine Mammal Monitoring Plan</i> (NOAA 2017). 	
	Impact-BIO-3: Potential Disturbance or Destruction of Nests Protected by the Migratory Bird Treaty Act and California Fish and Game Code. Removal of mature trees during construction, as well as noise from construction activity, could impede the use of bird breeding sites during the nesting season (February 15 through August 31). The destruction of an occupied nest would be considered a significant impact if it were a violation of the MBTA or California Fish and Game Code. Therefore, this impact would be potentially significant.	PS	MM-BIO-3: Avoid Nesting Season for Birds or Conduct Preconstruction Nesting Surveys. To ensure compliance with the MBTA and similar provisions under Sections 3503 and 3503.5 of the California Fish and Game Code, the project proponent shall conduct all vegetation removal (e.g., ornamental trees) during the non-breeding season between September 1 and February 14 or shall implement the following: <ul style="list-style-type: none"> • If construction activities are scheduled between February 15 and August 31, the project proponent shall retain a qualified ornithologist (with knowledge of the species to be surveyed) who shall conduct a focused nesting bird survey within potential nesting habitat prior to the start of vegetation removal. The survey shall be submitted to the District for review and approval of the survey 	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>and the buffer area, defined below, if any, prior to the commencement of vegetation removal on the project site.</p> <ul style="list-style-type: none"> The nesting bird survey area shall include the entire limits of disturbance plus a 300-foot buffer for non-raptors and a 500-foot buffer for raptors to ensure indirect impacts would be avoided. The nesting surveys shall be conducted within 1 week prior to initiation of construction activities and shall consist of a thorough inspection of the project area by a qualified ornithologist(s). The survey shall occur between sunrise and 12:00 p.m., when birds are most active. If no active nests are detected during these surveys, only a letter report documenting the results shall be prepared. If the survey confirms nesting within 300 feet of the disturbance footprint for non-raptors or within 500 feet for raptors, a no-disturbance buffer shall be established around each nest site to avoid disturbance or destruction of the nest until after the nesting season or a qualified ornithologist determines that the nest is no longer active. The size and constraints of the no-disturbance buffer shall be determined by the qualified biologist at the time of discovery, but shall not be greater than 300 feet for non-raptors and 500 feet for raptors. If there is a delay of more than 7 days between when the nesting bird survey is performed and vegetation removal begins, the qualified biologist shall resurvey to confirm that no new nests have been established. 	
	Impact-BIO-4: Reflective Materials and Increased Bird Strikes (market-rate hotel tower, lower-cost visitor-serving hotel, and retail	PS	MM-BIO-4: Implement Bird Strike Reduction Measures on New Structures. Prior to issuance of any building permits, building plans shall be reviewed by an ornithologist familiar with local species, retained by the	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	development). Use of reflective building and glass finishes may confuse birds in flight, leading to an increase in strikes. This impact would be potentially significant.		<p>developer and approved by the District, 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 <i>Bird-Friendly Building Design</i> (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 and the District that design strategies will be in accordance with the <i>Bird-Friendly Building Design</i>, and confirmed with USFWS and CDFW by incorporating strategies to minimize the threat to avian species, including but not limited to the following:</p> <ul style="list-style-type: none"> • Building Façade and Site Structures <ul style="list-style-type: none"> ○ Develop a building façade and site design that are visible as physical barriers to birds • Incorporate elements like netting, screens, grilles, shutters, and exterior shades to preclude collisions <ul style="list-style-type: none"> ○ 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. <ul style="list-style-type: none"> ▪ High Threat Potential: Glass: Highly reflective and/or completely transparent surface ▪ Least Threat Potential: Opaque Surface • Exterior Lighting <ul style="list-style-type: none"> ○ Fixtures not necessary for safety, entrances, and circulation shall be automatically shut off from midnight until 6:00 a.m. 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<ul style="list-style-type: none"> ○ Exterior luminaires must meet these requirements for all exterior luminaires located inside project boundary based on the following: <ul style="list-style-type: none"> ▪ 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 <i>Illuminating Engineering Society and International Dark Sky Association (IES/IDA) Model Lighting Ordinance (MLO) User Guide</i> (2011). ● Performance Monitoring Plan <ul style="list-style-type: none"> ○ Develop a 3-year post-construction monitoring plan to routinely monitor the effectiveness of the building and site design in preventing bird collisions. 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 voluntary corrective action. ○ Provide a performance monitoring report demonstrating which design strategies have been incorporated and results of performance monitoring for District review. <p>A full list and explanation of these design strategies can be found in Appendix E-4.</p>	
	Impact-BIO-5: Loss of Open Water Habitat from Marina Operations. The California least tern has the	PS	MM-BIO-5: Implement Overwater Coverage and Structural Fill Mitigation in Coordination with NMFS, CDFW, USFWS, RWQCB, USACE, and the	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	<p>potential to utilize open water habitat within and adjacent to the project site for foraging opportunities. The increase in overwater coverage resulting from the marina expansion is approximately 58,319 square feet or 1.34 acres, and would reduce the available open water habitat that is used for foraging by fish-eating avian species. In addition to the impact on avian species, NMFS acknowledges that overwater coverage can have a cumulative impact on nearshore marine environments, although the impacts are often project specific and difficult to quantify. While the proposed configuration of overwater structures would not generate shade over eelgrass, overwater structures have the potential to affect nearshore habitat through a number of mechanisms including reduced primary production, altered wave and tidal energy, increased substrate disturbances, and increased nutrient loading (Nightingale and Simenstad 2001). This impact would be potentially significant.</p>		<p>District to Compensate for Loss of Open Water Habitat and Function. The project proponent shall implement the following:</p> <ol style="list-style-type: none"> 1. Prior to issuance of a Coastal Development Permit, the project proponent shall request and participate in stakeholder meetings with NMFS, CDFW, USFWS, RWQCB, USACE, 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 the Bay. 2. Prior to the commencement of construction activities of the marina expansion, the project proponent shall implement one of the following mitigation options, or a combination thereof, that are listed below in order of preference; however, selection of 2.A, 2.B, 2.C and 2.D, or an equivalent combination thereof, would successfully reduce Impact-BIO-5 to a level below significance. <ol style="list-style-type: none"> A. Remove 58,319 square feet (1.34 acres) of overwater coverage and 13,623 square feet (0.31 acre) of structural fill within San Diego Bay or San Diego region, which would replace the area affected by the proposed project at a 1:1 mitigation ratio, subject to the District's review and approval. If evidence is presented that demonstrates that all or a portion of the required removal of overwater coverage or structural fill is infeasible, the project proponent shall implement 2.B. B. Restore 71,942 square feet of eelgrass habitat at the South Bay Power Plant cooling water intake channel at a 1:1 ratio, which would offset 58,319 square feet (1.34 acres) of overwater 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>coverage and 13,623 square feet (0.31 acre) of structural fill impacts. The project proponent may identify an alternative mitigation site of equivalent size and value within San Diego Bay, subject to the District's review and approval. Prior to the commencement of construction activities for the marina expansion, the project proponent shall submit a mitigation plan for review and approval by the Development Services Department of the District. The mitigation plan at a minimum shall include a description of the transplant site, eelgrass mitigation requirements, eelgrass planting plan (e.g., transplant sites, donor sites, reference site), restoration methods (e.g., plant collection, transplant units, planting eelgrass units), timing of the restoration work, and a monitoring program (e.g., establishment of monitoring and mitigation success criteria). The project proponent shall secure all applicable permits for the mitigation site prior to commencement of waterside construction. Additionally, the project proponent shall ensure that all fill materials proposed for discharge into San Diego Bay for the development of the mitigation site shall meet the requirements of the U.S. Army Corps of Engineers' <i>Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. – Testing Manual (Inland Testing Manual)</i>. If evidence is presented that demonstrates that restoration of all or a portion of the required 71,942 square feet of eelgrass habitat is infeasible, the project proponent shall implement 2.C.</p> <p>C. If a suitable in lieu fee program or mitigation bank within the Coastal Zone that is not yet</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>available becomes available in the future, prior to construction of the proposed marina, the project proponent shall purchase credits to offset 58,319 square feet (1.34 acres) of overwater coverage and 13,623 square feet (0.31 acre) of structural fill, or the remaining square footage of the impacts if a combination of other above options are selected. If evidence is presented that demonstrates that purchase of credits toward an in lieu fee program or mitigation bank is infeasible, the project proponent shall implement 2.D.</p> <p>D. Subject to the Board of Port Commissioners' approval and findings, the proposed project may purchase credits from the District's shading credit program established pursuant to board Policy 735 at a fair market value equivalent to that of the proposed project's final shading total (i.e., less any reductions achieved by design modifications to the satisfaction of NMFS, USFWS, RWQCB, CDFW, and USACE).</p> <p>E. Any combination of the above that sufficiently offsets 58,319 square feet (1.34 acres) of overwater coverage and 13,623 square feet (0.31 acre) of structural fill impacts.</p> <p>F. This shall be the minimum mitigation for overwater coverage and structural fill impacts. One or more of the aforementioned state and federal agencies may require additional or greater mitigation. This mitigation measure in no way supersedes mitigation measures that may be required by state and federal agencies.</p> <p>Should the project proponent only construct Phase 1 of the marina expansion, the mitigation requirement shall be reduced proportionate to the overwater coverage and structural fill impacts of</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			the Phase I only expansion, consistent with a 1:1 mitigation ratio. 3. The project proponent shall secure all applicable permits for the mitigation of overwater coverage and structural fill prior to commencement of waterside construction.	
	Impact-BIO-6: Loss of Open Water Function from Structural Fill. Several species utilize the open water habitat. The proposed project would result in an increase of 13,623 square feet or 0.31 acre of structural fill with the construction of 188 piles and the breakwater for the marina expansion. The increase in structural fill would reduce the amount of open water within the San Diego Bay. The piles and breakwater could restrict or change water circulation. The restriction in circulation would likely have a minimal but unpredictable impact on eelgrass beds in the areas inside of the breakwater (Appendix E-1).	PS	Implement MM-BIO-5 , as described above.	LS
Substantial Adverse Effect on any Riparian Habitat or Other Sensitive Natural Community Identified in Local or Regional Plans, Policies,	Impact-BIO-5 , as described above.	PS	Implement MM-BIO-5 , as described above.	LS
	Impact-BIO-7: Potential Reduction in Eelgrass Habitat and Productivity During Construction. In-water construction activities have the potential to affect eelgrass beds adjacent to the marina expansion portion of the project. Impacts may include direct physical disturbance to the beds from anchoring and staging of equipment, through shading from	PS	MM-BIO-6: Develop an Eelgrass Mitigation and Monitoring Plan in Compliance with the California Eelgrass Mitigation Policy. 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 (Appendix E-5). 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	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Regulations or by CDFW, NMFS, or USFWS	construction-related equipment, and from elevated turbidity levels from construction-related activities such as pile driving. The potential reduction in eelgrass habitat would be significant.		<p>event that the surveys described below indicate the project has impacts on eelgrass. The specific eelgrass mitigation plan elements shall include:</p> <ul style="list-style-type: none"> • Prior to the commencement of any in-water construction activities, a qualified marine biologist retained by the project proponent and approved by the District shall conduct a preconstruction eelgrass survey. Surveys for eelgrass shall be conducted during the active eelgrass growing season (March–October), and results will be valid for 60 days, unless completed in September or October; if completed in September or October, results will 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 retained by the project proponent and approved by the District shall conduct a post-construction eelgrass survey during the active eelgrass growing season. The post-construction survey shall evaluate potential eelgrass impacts associated with construction. Upon completion of the post-construction survey, the qualified marine biologist shall submit the survey report to District and resource agencies within 30 days. • At least 2 years of annual post-construction 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, vessels associated, and water circulation 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>impacts noted in the project's marine biological assessment (Appendix E-1).</p> <ul style="list-style-type: none"> • In the event that impacts on eelgrass are detected, the project proponent shall implement the following: <ul style="list-style-type: none"> ○ A qualified marine biologist retained by the project proponent and approved by the District shall develop a mitigation plan for in-kind mitigation. The qualified marine biologist shall submit the mitigation plan to the District and resource agencies within 60 days following the post-construction survey. ○ Mitigation for eelgrass impacts shall be at a ratio of 1.2:1 at the proposed mitigation site identified at the decommissioned South Bay Power Plant cooling water intake channel. ○ 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 E-5). ○ 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. 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			The monitoring reports shall include all of the specific requirements identified in the California Eelgrass Mitigation Policy (Appendix E-5).	
			<p>MM-BIO-7: Avoid or Mitigate Impacts on Eelgrass Due to Anchored Barges, Boat Navigation, and Propeller Wash. Tug and barge operators shall ensure that anchored construction barges are located outside of eelgrass beds. The preconstruction and post-construction eelgrass surveys required under MM-BIO-6 shall also identify and demarcate the distribution of eelgrass to assist tug and barge operators and to assess any impacts on eelgrass that may occur. Additionally, tug boat operators shall be instructed that propeller wash can damage eelgrass beds and the integrity of the sediment cap at the adjacent Campbell Shipyard Mitigation Cap Site. No anchoring (and other bottom-disturbing activities) shall occur within eelgrass beds, and propeller wash shall not be directed toward eelgrass beds. If an unanticipated impact on eelgrass occurs, this impact shall be mitigated by replacing the eelgrass at a ratio of 1.2:1, as specified in the California Eelgrass Mitigation Policy (Appendix E-5), and included in the mitigation and monitoring plan identified under MM-BIO-6.</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	Impact-BIO-8: Potential Loss of Eelgrass Habitat Due to Increased Boat Traffic, Marina Operations, and Increased Shade from Hotel Operations. Operations associated with both the landside and waterside portions of the proposed project have the potential to affect eelgrass beds due to increased boating traffic disturbing eelgrass beds, and shading of eelgrass habitat from overwater structures and the hotel. This impact would be potentially significant.	PS	MM-BIO-8: Implement Boater Education and Marina Lease Requirements, and Install Navigation Aids and Demarcate Eelgrass Adjacent to the Marina. Prior to operation of the proposed marina, the project proponent shall draft and implement marina lease requirements and a boater education program, and install navigation aids and a floating barrier to demarcate the eelgrass beds and create a visible barrier to better protect the eelgrass mitigation site from being affected by negligent boating. Implement MM-BIO-6 , as described above, and MM-HWQ-1 , as described below under <i>Hydrology and Water Quality</i> .	LS
Substantial Adverse Effect on Federally Protected Wetlands as Defined by Section 404 of the Clean Water Act	Implementation of the proposed project would not have a substantial adverse effect on federally protected wetlands.	LS	No mitigation is required.	LS
Substantial Interference with the Movement of any Native Resident or Migratory Fish or Wildlife Species	Implementation of the proposed project would not substantially interfere with the movement of fish or other wildlife species. Moreover, it would not substantially impede the use of native wildlife nursery habitat.	LS	No mitigation is required.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Conflict with any Applicable Local Policies or Ordinances	Implementation of the proposed project would not conflict 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.	LS	No mitigation is required.	LS
Cumulative Impacts				
The proposed project's incremental contribution to cumulative biological resource impacts would not be cumulatively considerable.				
4.4 Cultural Resources				
Project Impacts				
Substantial Adverse Change in the Significance of a Historical or Archaeological Resource as Defined in Section 15064.5	Impact-CUL-1: Excavation Related to the Proposed Project would Potentially Damage Significant Archaeological Resources. Portions of CA-SDI-15118H, a large historic period dump under the SDCC that may continue to the south into the project site, have the potential to be unearthed during excavation undertaken as part of the proposed construction activities on the project site. Impacts would be significant without mitigation.	PS	MM-CUL-1: Archaeological Monitoring in Areas of Sensitivity. The project proponent shall retain a qualified archaeologist(s) who meets the Secretary of the Interior's Professional Qualifications Standards, as promulgated in 36 Code of Federal Regulations 61. The qualified archaeologist shall monitor all proposed grading and excavating for the proposed project in the archaeologically sensitive portion of the project site. The sensitive portion of the project site, where it is possible that cultural materials associated with CA-SDI-15118H exist, consists of the northeastern section currently occupied by the paved parking lot along Convention Way (Figure 4.4-4 of the Draft EIR). The following measures shall only apply to the archaeologically sensitive portion of the project site during earthwork activities, including, but not limited to, grading and excavation. <ul style="list-style-type: none"> The qualified archaeologist shall participate in a preconstruction meeting to inform all personnel of 	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>the potential for historical archaeological materials to be encountered during ground-disturbing activities.</p> <ul style="list-style-type: none"> If an isolated artifact or historic period deposit is discovered that requires salvaging, the qualified archaeologist shall have the authority to temporarily halt construction activities within 100 feet of the find and shall be given sufficient time to recover the item(s) and map its location with a global positioning system (GPS) device. If buried cultural materials are discovered that require salvaging, the qualified archaeologist shall be empowered to divert construction activities away from the find, and be given sufficient time to recover the item(s) and map its location with a GPS device. The qualified archaeologist shall treat recovered items in accordance with current professional standards by properly provenancing, cleaning, analyzing, researching, reporting, and curating them in a collection facility meeting the Secretary of the Interior's Standards, as promulgated in 36 CFR 79, such as the San Diego Archaeological Center. Within 60 days after completion of the ground-disturbing activity, the qualified archaeologist shall prepare and submit a final report to the District's Development Services Department for review and approval, which shall discuss the monitoring program and its results, and provide interpretations about the recovered materials, noting to the extent feasible each item's class, material, function, and origin. 	
Directly or Indirectly Destroy a	Impact-CUL-2: Potential to Disturb Buried Paleontological Resources. There is the potential to significantly	PS	MM-CUL-2: Paleontological Monitoring in Areas of Sensitivity. To reduce potential impacts on paleontological resources, all proposed grading and	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Unique Paleontological Resource or Site or Unique Geologic Feature	affect highly sensitive paleontological resources due to excavation that would extend 10 feet or more below ground surface and would include the movement of more than 1,000 cubic yards of soil.		<p>excavating to depths greater than 10 feet shall be monitored by a qualified paleontologist(s), approved by the District's Development Services Department and paid for by the project proponent. Specifically, the project proponent and/or its construction supervisor shall ensure the following measures are implemented.</p> <ul style="list-style-type: none"> • A qualified Paleontologist shall attend the preconstruction meeting 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 a 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 mitigation project supervisor in the County for at least 1 year. • A paleontological monitor shall be on site on a full-time basis during excavation and pile-driving activities that occur 10 feet or more below ground surface, 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 selected by the qualified Paleontologist who has experience in the collection and salvage of fossil materials. • If fossils are discovered, the Paleontologist shall recover them and temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. • Fossil remains collected during the monitoring and salvage portion of the mitigation program shall be cleaned, repaired, sorted, and catalogued. 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<ul style="list-style-type: none"> 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 shall be accompanied by financial support for initial specimen storage, paid for by the project proponent. Within 30 days after the completion of an excavation and pile-driving activities, a final data recovery report shall be completed by the qualified Paleontologist that outlines the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils. 	
Disturb any Human Remains, Including Those Interred Outside of Formal Cemeteries	The proposed project would not result in the disturbance of human remains, including those interred outside of formal cemeteries.	LS	No mitigation required.	LS
Cumulative Impacts				
The proposed project's incremental contribution to archaeological resources, paleontological resources, and human remains would be less than cumulatively considerable.				
4.5 Geology and Soils				
Project Impacts				
Exacerbate the Potential of a: (I) Rupture of a Known Earthquake	Impact-GEO-1: Potential to Exacerbate Conditions That Would Result in Liquefaction. There is the potential that construction activities could loosen soil compaction and	PS	MM-GEO-1: Demonstrate Compliance with Regulations, including CBC and City of San Diego Municipal Code, by Preparing a Geotechnical Investigation Report. To reduce potential impacts related to soil hazards, the project proponent shall	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Fault; (II) Strong Seismic Ground Shaking; (III) Seismic-Related Ground Failure, Including Liquefaction; or (IV) Landslides	change the existing geologic conditions in a way that would increase the potential for liquefaction to occur.	LS	conduct a geotechnical investigation for the project prior to the completion of the final design of the project. The geotechnical investigation shall be submitted to the District and the City of San Diego and be approved by the City of San Diego. The project proponent shall be required to implement the recommendations identified in the geotechnical report. The geotechnical report shall be prepared in compliance with CBC regulations and include the following: <ul style="list-style-type: none"> • Site-specific geotechnical and fault evaluation. • Suitability determination for construction within soil hazard areas. • Recommendations for design and construction practices based on the suitability determination, such as: <ul style="list-style-type: none"> ○ Temporary shoring ○ Supporting structures on pile foundations ○ Measures to protect structures against corrosion ○ Ground improvement techniques, such as deep soil mixing and compaction grouting 	LS
Result in Substantial Soil Erosion or the Loss of Topsoil	Implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil.	LS	No mitigation is required.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Result in On- or Offsite Lateral Spreading, Subsidence, or Collapse	Impact-GEO-2: Potential to Exacerbate Conditions That Would Result in Lateral Spreading or Soil Collapse. There is the potential that construction activities could loosen soil compaction and change the existing geologic conditions in a way that would increase the potential for lateral spreading or soil collapse to occur.	PS	Implement MM-GEO-1 , as described above.	LS
Located on Expansive Soil, as Defined in Table 18-1-B of the Uniform Building Code (1994)	Implementation of the proposed project would not exacerbate the potential for impacts associated with expansive soils.	LS	No mitigation is required.	LS
Involve Soils that Would Be Incapable of Adequately Supporting the Use of Septic Tanks or Alternative Wastewater Disposal Systems	The proposed project does not feature the use of septic tanks or alternative wastewater disposal systems.	NI	No mitigation is required.	NI
Cumulative Impacts				
The proposed project's incremental contribution to cumulative geology and soils impacts would not be cumulatively considerable.				

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
4.6 Greenhouse Gas Emissions and Climate Change				
Project Impacts				
Consistent with Plans, Policies and Regulatory Programs	Impact-GHG-1: Inconsistency with District Climate Action Plan and Only Partial Consistency with Applicable GHG Reduction Plans, Policies, and Regulatory Programs through 2021. Project GHG emissions during combined project construction and operational activities would be inconsistent with the CAP because the project would not meet the performance benchmark for recreational boating (i.e., 42% reduction) and would only partially comply with plans, policies, and regulatory programs outlined in the District's CAP, the Scoping Plan, and other plans, policies, and regulatory programs adopted by ARB for the purpose of reducing the emissions of GHGs.	PS	MM-GHG-1: Implement Diesel Emission-Reduction Measures During Project Construction. The project proponent shall implement the following measures during project construction and, where specified below, shall submit reports to the District's Development Services Department for its review and approval, evidencing compliance. i. The project proponent shall limit all equipment and delivery truck idling times by shutting down equipment 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 quarterly reports of violators to the District. This measure shall be enforced by the hotel and marina supervisors, and repeat violators shall be subject to penalties pursuant to California airborne toxics control measure 13 California Code of Regulations Section 2485. The project proponent shall submit evidence of the use of diesel reduction measures to the District's Development Services Department through annual reporting, with the first report due 1 year from the date of project completion. ii. 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 and equipment have been checked by a certified mechanic and determined to	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>be running in proper condition prior to admittance into the delivery driveway and loading areas. The project proponent shall submit a report by the certified mechanic of the condition of the construction and operations vehicles and equipment to the District's Development Services Department prior to commencement of their use.</p> <p>MM-GHG-2: Comply with San Diego Unified Port District Climate Action Plan Measures. Effective opening day, the project proponent shall implement the following measures.</p> <ul style="list-style-type: none"> • No commercial drive-through shall be implemented. • Reduce indoor water consumption by 20% lower than baseline buildings (defined by Leadership in Energy and Environmental Design [LEED] as indoor water use after meeting Energy Policy Act of 1992 fixture performance requirements) through use of low-flow fixtures in all hotel room and common area bathrooms. • Compliance with Assembly Bill 939 and the City of San Diego's Recycling Ordinance shall be mandatory and shall include recycling at least 50% of solid waste; compliance with the City of San Diego's Construction and Demolition Debris Deposit Ordinance 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. • Use only fluorescent, Light-Emitting Diodes (LEDs), Compact Fluorescent Lights (CFLs), or the most energy-efficient lighting that meets required lighting standards and is commercially available. 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>This measure also requires replacement of existing lighting on the project site if not already highly energy efficient.</p> <ul style="list-style-type: none"> Implement a parking management plan that incentivizes transit, provides bike racks and a bike share station, and provides shuttle programs to reduce worker trips and parking demand, as described in MM-TRA-8. <p>By December 31, 2029, the project proponent shall implement and have operational the following measure.</p> <ul style="list-style-type: none"> Install 29 electric car charging stations in the parking garage. <p>MM-GHG-3: Implement Sustainability Features during Project Operations. Prior to approval of the final design plans, the project proponent shall list all GHG-reducing measures and shall demonstrate in the plans where these measures will be located. The following shall be implemented by the project proponent. A report shall be submitted to the District's Development Services Department evidencing compliance. The project has registered its intent to achieve certification under the Leadership in Energy and Environmental Design (LEED) Green Building Rating Systems with the Green Building Certification Institute.</p> <p>The project proponent has proposed various sustainable design features equivalent to LEED v.3.0 Silver level. The following is a list of proposed sustainability measures that will be required and incorporated into the Coastal Development Permit for the project.</p> <ul style="list-style-type: none"> Incorporate indoor water-reduction measures, including high-efficiency toilets, high-efficiency urinals, low-flow faucets, and low-flow showers (as 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>applicable) into the design of all hotel room and common area bathrooms. The project shall achieve a minimum 20% water reduction compared to baseline buildings (defined by LEED as indoor water use after meeting Energy Policy Act of 1992 fixture performance requirements).</p> <ul style="list-style-type: none"> • Install Energy Star rated appliances. • Install a high-efficiency lighting system that takes advantage of natural daylighting, augmented by daylighting controls and occupancy sensors that turn off the lights in unoccupied spaces. • 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 a “Cool Roof” with an R value of 30 or better. • Install sun shading devices as appropriate. • Install a stormwater retention and filtration system. • Install low-water plantings and drip irrigation, and minimize domestic water demand from the City system for landscaping purposes. • Implement onsite recycling. • Install a high-performance chiller/heating plant. • Work with San Diego Gas & Electric’s “Savings by Design” program during the design and construction process and incorporate recommended suggestions where feasible. • Utilize low-volatile organic compound materials to improve indoor air quality. • Provide bicycle parking for 24 bicycles. • Integrate light-colored paving at the rooftop plaza and park area to minimize the heat island effect. 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<ul style="list-style-type: none"> • Provide education for hotel and marina guests and visitors on sustainability and Bay conservation using various media. • Divert construction and demolition debris from disposal in landfills and incineration facilities by 65%. • Use recycled, regional, and/or rapidly renewable materials where feasible. • Provide preferential carpool spaces within the proposed parking structure. <p>MM-GHG-4: Implement a Renewable Energy Project on Site, on Tidelands, or Within Offsite Tidelands Adjacent to Community or Member City, or Purchase the Equivalent Greenhouse Gas Offsets from a California Air Resources Board Approved Registry or a Locally Approved Equivalent Program.</p> <p>To reach the waterside performance standard for 2021, the project proponent shall, in order of preference, considering availability of structures and feasibility, incorporate renewable energy (1) on the project site; (2) within the District's jurisdiction; or (3) within the adjacent community or member city outside of the District's jurisdiction. These three options may be combined with consideration to the preference described above. If construction of renewable energy projects does not satisfy the waterside performance standards, the project proponent shall purchase greenhouse gas reduction credits to achieve requisite reductions to meet the 2021 waterside reduction target. This requirement may include a micro-grid or similar type of energy management system to help distribute the loads and/or assist in energy storage. To meet the 2021 waterside reduction target, the renewable energy project must offset 1,382 MTCO_{2e} per year or 5,698</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>megawatt-hours per year (MWh/year). The renewable energy project shall be constructed and operational prior to certificate of occupancy or the opening day for the waterside improvements.</p> <p>In the event greenhouse gas offsets are purchased, these offsets must be from sources listed on the American Carbon Registry and/or the Climate Action Reserve (or any other such registry approved by the ARB). The selected option or a combination must achieve a total annual reduction of 1,382 MTCO₂e, which would amount to 12,435 MTCO₂e over 9 years (between 2021 and 2030).</p>	
<p>Parallel the State's Overall Reduction Targets Identified in SB 32 and EO S-03-05 and Compliance with Plans, Policies, and Regulatory Programs Adopted by ARB or Other California Agencies for Post-2020</p>	<p>Impact-GHG-2: GHG Emissions in Excess of Post-2020 Targets for Landside Uses and Recreational Boating. Project GHG emissions during combined project construction and operational activities would not meet the landside efficiency target in 2030 and 2050, and would not meet the performance standard for recreational boating in both 2030 and 2050. Additionally, the proposed project would not comply with plans, policies, and regulatory programs outlined in the Draft 2017 Scoping Plan Update because emissions are not sufficiently reduced to meet statewide targets.</p>	PS	<p>Implement MM-GHG-1 through MM-GHG-4, as described above.</p> <p>MM-GHG-5: Implement a Renewable Energy Project on Site, on Tidelands, or Within Offsite Tidelands Adjacent to Community or Member City, or Purchase the Equivalent Greenhouse Gas Offsets from a California Air Resources Board Approved Registry or a Locally Approved Equivalent Program. To reach the landside and waterside reduction target for 2030 the project proponent shall, in order of preference, considering availability of structures and feasibility, incorporate renewable energy (1) on the project site; (2) within the District's jurisdiction; or (3) within the adjacent community or member city outside of the District's jurisdiction. These three options may be combined with consideration to the preference described above. If construction of renewable energy projects does not satisfy the waterside performance standards, the project proponent shall purchase greenhouse gas reduction credits to achieve requisite reductions to meet the 2030 waterside reduction target. This requirement may include a micro-grid or similar</p>	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>type of energy management system to help distribute the loads and/or assist in energy storage. To meet the 2030 landside and waterside reduction target, the renewable energy project must offset an additional 3,418 MTCO_{2e} per year. The renewable energy project shall be submitted to the District's Development Services Department no later than January 1, 2028, shall consider the latest advancements in energy technology and future regulatory requirements, and must be operational by January 1, 2030. In the event greenhouse gas offsets are purchased, these offsets must be from sources listed on the American Carbon Registry and/or the Climate Action Reserve (or any other such registry approved by the California Air Resources Board). The selected option or a combination must achieve a total annual reduction of 3,418 MTCO_{2e} per year or 15,317 megawatt-hours per year (MWh/year), which would amount to 68,367 MTCO_{2e} over 20 years (between 2030 and 2050).</p> <p>To meet the 2050 landside and waterside reduction targets, the renewable energy project must offset 11,935 MTCO_{2e} per year or 53,478 MWh/year. The renewable energy project may be submitted to the District's Development Services Department as late as January 1, 2048 (but no later) in order to consider the latest advancements in energy technology and future regulatory requirements, but may be submitted sooner and must be operational by January 1, 2050. In the event greenhouse gas offsets are purchased, these offsets must be from sources listed on the American Carbon Registry and/or the Climate Action Reserve (or any other such registry approved by the California Air Resources Board). The selected option or a combination must achieve a total annual reduction of 4,447 MTCO_{2e} for waterside uses and 7,489 MTCO_{2e} for landside uses,</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			which would amount to 441,604 MTCO ₂ e over 37 years (between 2050 and the end of the lease, 2087).	
Exacerbate any Existing and/or Projected Damage to the Environment Including Sea Level Rise	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 SLR.	LS	No mitigation is required. However, as discussed in Section 4.9, <i>Land Use and Planning</i> , MM-LU-1 is required to ensure consistency with the CCA by improving the project site's potential to avoid damage from SLR by implementing specific measures through smart planning to protect coastal resources into the foreseeable future.	LS
Cumulative Impacts				
Consistent with Plans, Policies and Regulatory Programs	Impact-C-GHG-1: Inconsistency with District Climate Action Plan and Only Partial Consistency with Applicable GHG Reduction Plans, Policies, and Regulatory Programs through 2021. Project GHG emissions during combined project construction and operational activities would be inconsistent with the CAP because the project would not meet the performance benchmark for recreational boating (i.e., 42% reduction) and would only partially comply with plans, policies, and regulatory programs outlined in the District's CAP, the Scoping Plan, and other plans, policies, and regulatory programs adopted by ARB for the purpose of reducing the emissions of GHGs.	PS	Implement MM-GHG-1 , MM-GHG-2 , MM-GHG-3 , and MM-GHG-4 , as described above.	LS
Parallel the State's Overall Reduction Targets Identified in SB	Impact-C-GHG-2: GHG Emissions in Excess of Post-2020 Targets for Landside Uses and Recreational Boating. Project GHG emissions during combined project construction	PS	Implement MM-GHG-1 , MM-GHG-2 , MM-GHG-3 , MM-GHG-4 , and MM-GHG-5 , as described above.	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
32 and EO S-03-05 and Compliance with Plans, Policies, and Regulatory Programs Adopted by ARB or Other California Agencies for Post-2020	and operational activities would not meet the landside efficiency target in 2030 and 2050, and would not meet the performance benchmark for recreational boating in both 2030 and 2050. Additionally, the proposed project would not comply with plans, policies, and regulatory programs outlined in the Draft 2017 Scoping Plan Update because emissions are not sufficiently reduced to meet statewide targets.			
4.7 Hazards and Hazardous Materials				
Project Impacts				
Routine Transport, Use, or Disposal of Hazardous Materials	Implementation of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	LS	No mitigation is required.	LS
Release of Hazardous Materials into the Environment	Impact-HAZ-1: Landside Soil Contamination. The historical information reviewed for this analysis indicates that the project site has a history of handling, disposal, and releases of hazardous materials. Therefore, contaminated soils may be encountered during construction activities, 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 and Groundwater Management Plan. Prior to the District's approval of the project's landside working drawings, 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 Development Services Department for review and approval. After the District's review and approval, the project proponent shall implement the Soil and Groundwater Management Plan. The Soil and Groundwater Management Plan shall include the following:	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<ul style="list-style-type: none"> • <i>A Landside Site Contamination Characterization Report</i> (Landside Characterization Report) delineating, throughout the landside project construction area, the vertical and lateral extent and concentration of landside residual contamination from the site's past use including, but not limited to, past use of the site as a fuel facility, municipal burn dump, and manufactured gas plant waste disposal area. The Landside Characterization Report shall include 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 landside residual contamination. The project applicant also shall enroll in the Voluntary Assistance Program with the County of San Diego Department of Environmental Health and shall submit the results of the Landside Characterization Report to Department of Environmental Health staff for regulatory concurrence of results. • <i>A Soil and Groundwater Testing and Profiling Plan</i> (Testing and Profiling Plan) for those materials that will be disposed of during construction. Testing shall occur for all potential contaminants of concern, including CA Title 22 metals, PAHs, volatile organic compounds, pesticides, PCBs, semi-volatile organic compounds, hydrocarbons, or any other potential contaminants. 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 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>Assessor for the potential presence of contaminated soils and for compliance with the Soil and Groundwater Sediment Testing and Profiling Plan.</p> <ul style="list-style-type: none"> • <i>A Soil and Groundwater Disposal Plan</i> (Disposal Plan), which shall describe the process for excavation, stockpiling, dewatering, treating, and loading and hauling of soil and groundwater 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, CAC Title 27), and current industry best practices for the prevention of cross contamination, spills, or releases, such as segregation into separate piles for waste profile analysis based on organic vapor, and visual and odor monitoring. • <i>A Site Worker Health and Safety Plan</i> (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 Landside Characterization Report and the planned site construction activity to ensure that site workers potentially exposed to site contamination in soil and groundwater 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. <p>MM-HAZ-2: Prepare and Submit a Monitoring and Reporting Program. During and upon completion of</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>landside construction, the project proponent shall prepare a Monitoring and Reporting Program and submit it to the District's Development Services Department for review and approval. The Monitoring and Reporting Program shall document implementation of the Soil and Groundwater 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 the project proponent's submittal of 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, signed and certified by the licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer, as applicable, documenting compliance with the provisions of these and plans and the overall Soil and Groundwater Management Plan.</p> <p>MM-HAZ-3: Prepare and Submit a Project Closeout Report. Within 30 days of completion of landside construction, the project proponent shall prepare a Project Closeout Report and submit it to the District's Development Services Department for review and approval. The Project Closeout Report shall summarize all environmental activity at the site and document implementation of the Soil and Groundwater Management Plan, as required by MM-HAZ-1, and the Monitoring and Reporting Program, as required by MM-HAZ-2.</p> <p>MM-HAZ-4: Develop and Implement a Site-Specific Community Health and Safety Program. Prior to the District's approval of the project's landside working drawings, the project proponent shall develop a site-</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			specific Community Health and Safety Program (Program) that addresses the chemical constituents of concern for the project site. The guidelines of the Program shall be in accordance with the County of San Diego Department of Environmental Health's <i>Site Assessment and Mitigation Manual</i> (2009) and EPA's <i>SW-846 Manual</i> (1986). The Program shall include detailed plans on environmental and personal air monitoring, dust control, and other appropriate construction means and methods to minimize the public's exposure to the chemical constituents of concern. The Program shall be reviewed, approved, and monitored for compliance by the District. After the District's approval, the project proponent shall implement the Program. The contractor shall utilize a Certified Industrial Hygienist with significant experience with chemicals of concern on the project site to actively monitor compliance with the Program and ensure its proper implementation during project construction activities.	
	Impact-HAZ-2: Waterside Sediment Contamination and Damage to the Cap. Historical information and monitoring reports compiled from previous site assessments and database searches indicate that it is reasonably foreseeable that contaminated sediments may be encountered during construction activities within the marina portion of the project site. As such, construction activities that disturb the sediment would potentially result in a release of hazardous materials and create a potentially significant hazard within the environment by bringing and	PS	MM-HAZ-5: Avoidance of the Engineered Cap. During construction of the marina expansion, the project proponent shall avoid disturbance of the engineered cap and installation of all piles for the marina expansion shall occur outside of the engineered cap. MM-HAZ-6: Conduct Sediment Sampling and Implement Measures to Mitigate Potential Cross-Contamination of Marine Sediment from Pile Driving and In-Water Construction. Prior to the District's approval of the project's in-water working drawings, the project proponent shall retain a licensed Professional Engineer with substantial experience (i.e., more than 5 years) in marine sediment contamination, sediment sampling, and contamination remediation to	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	releasing subsurface sediment contaminants to the surface of the Bay floor or exacerbating the existing hazardous conditions by spreading contaminated sediment. In addition, installation of piles for the marina could damage the existing cap during construction of the marina expansion if piles or construction equipment were placed on the cap. Disruption of contaminated sediment and/or the cap would also violate Order No. R9-2004-0295 and would be considered a significant impact.		<p>perform all sediment sampling and analysis required by the Sampling and Analysis Plan (SAP) and Marine Sediment Contamination Characterization Report (Sediment Characterization Report)—both of which are discussed in detail within this mitigation measure.</p> <p>The results of all sediment sampling shall be documented in a report and submitted to the District prior to any project development-related marine-side sediment-disturbing activities. If remediation is required, the remediation shall be conducted with oversight from the appropriate local, State, or federal regulatory agency. In addition, documentation evidencing the remediation work and completion thereof shall be submitted to the District. The project proponent shall monitor the remediation for its effectiveness for a period of time consistent with guidance from the regulatory agency with jurisdiction, but for no less than 1 year. A monitoring report shall be submitted to the District and the RWQCB for their review on a monthly basis, or at a frequency determined appropriate by relevant agencies having jurisdiction over the remediation. Additional details of this mitigation measure are provided below.</p> <p>The project proponent and the professionally licensed Professional Engineer retained by the project proponent shall complete the following requirements, which shall be reviewed and approved by the District's Development Services Department, the RWQCB, and any other appropriate regulatory agencies.</p> <ul style="list-style-type: none"> • Develop a SAP and perform sediment sampling in area(s) of potential disturbance for in-water construction activities that are located outside of the engineered cap. Sampling shall be conducted in accordance with the <i>Water Quality Control Plan for Enclosed Bays and Estuaries Plan</i> (August 2009). Specifically, the samples shall include analysis of 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>(1) grain size analysis, (2) physical parameters, (3) total organic carbon, (4) Target Analyte List metals, (5) pesticides, (6) PAHs, (7) total PCBs (all 209 individual PCB congeners), as analyzed and reported by EPA Method 1668, and (8) total polychlorinated terphenyls. The sampling area shall encompass the waterside project footprint and sample locations shall be representative of areas of potential project disturbance. Areas of potential disturbance include, but are not limited to, proposed pile locations for the marina expansion; the locations of construction equipment, including without limitation to the location of any proposed spudding or other anchoring systems that will be utilized during construction of the marina expansion; potential deposition areas within the proposed silt curtain footprint; and any other areas where the Bay floor will be disturbed.</p> <ul style="list-style-type: none"> • Prepare a Sediment Characterization Report delineating the vertical and lateral extent and concentration of the project site's sediment contamination outside the engineered cap (Sediment Characterization). The Sediment Characterization Report shall be based on the sediment sampling results and shall rely on the Effects Range – Low (ER-L) and Effects Range – Median (ER-M) guideline values of the National Oceanic and Atmospheric Administration's <i>Sediment Quality Guidelines</i> (1999) as the basis for characterizing the sediment. The project proponent shall disclose the results of the Sediment Characterization Report to the RWQCB and the District (and any other appropriate regulatory agencies), and consult with the RWQCB on the contamination characterization of the sediment. 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<ul style="list-style-type: none"> • If contaminated sediment is identified in the Sediment Characterization Report, the project proponent shall prepare a Contaminated Sediment Management Plan (Sediment Management Plan) for the District's, RWQCB's, and any other appropriate regulatory agencies' review and approval, if applicable. Once approved, the Sediment Management Plan shall be implemented by the project proponent subject to oversight by the District, RWQCB, and any other appropriate regulatory agencies, if applicable. The Sediment Management Plan shall describe in detail the methods to be employed to prevent waterside construction activity from adversely affecting or exposing the contaminated sediment outside the engineered cap as identified in the Sediment Characterization Report and the monitoring that will occur post-construction, including, at a minimum: <ul style="list-style-type: none"> ○ Pile Construction Options. Piles shall be constructed using: <ul style="list-style-type: none"> (1) <u>Impact Hammer Pile Driving</u>. At the conclusion of the pile driving, the project applicant shall conduct sediment sampling of representative areas of potential disturbance near the location of piles consistent with the sampling approach set forth in the SAP, above. If the sediment samples show concentrations of sediment contamination above the Sediment Characterization, the project proponent shall delineate the extent of cross-contamination and propose remediation approaches (subject to approval by the District and any other agencies with jurisdiction over site contamination) that may include, but are not limited to, dredging, placement of sand cover, or Enhanced 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>Monitored Natural Recovery (EMNR) sand containing active carbon. The results of the sampling and remediation approaches shall be documented in a report to be reviewed and approved by the District, RWQCB, and any other appropriate regulatory agencies.</p> <p>OR</p> <p>(2) <u>Internal Jetting</u>. This method includes a jet pipe running the length of the pile where the water exits at a small-diameter port at the bottom of the pile and a high-pressure water line is attached near the top tip of the pile. The high-pressure water shall reduce the skin friction between the pile and the marine sediments and avoid the creation of a large hole and a significant amount of turbidity. Turbidity curtains shall completely surround each pile from the top of the pile to the Bay floor and be placed no more than 2 feet from the pile. At the conclusion of the internal jetting, the project proponent shall conduct sediment sampling of representative areas of potential disturbance near the locations of the piles, consistent with the sampling approach set forth in the SAP, above. If the sediment samples show concentrations of sediment contamination above the Sediment Characterization, the project proponent shall delineate the extent of cross-contamination and propose remediation approaches (subject to approval by the District and any other agencies with jurisdiction over site contamination) that may include, but are not limited to, dredging, placement of sand cover, or EMNR sand containing active carbon. The results of the sampling and remediation approaches shall be documented in a report to</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>be reviewed and approved by the District, RWQCB, and any other appropriate regulatory agencies.</p> <ul style="list-style-type: none"> Spudding. If spuds are used, then when lifted during in-water construction, they shall be lifted slowly at least a quarter of the speed they are lifted during normal operation of spuds. Before the spud reaches the subsurface of the Bay floor during deployment, the operator shall pause the spud lift for 1- to 2-minute intervals to reduce the disturbance of Bay sediment. At the conclusion of the marina construction, the project proponent shall conduct sediment sampling of representative areas of potential disturbance from spudding and other construction activities that may have disturbed the Bay floor within the project footprint, consistent with the sampling approach set forth in the SAP, above. If the sediment samples show concentrations of sediment contamination above the Sediment Characterization, the project proponent shall delineate the extent of cross-contamination and propose remediation approaches (subject to approval by the District and any other agencies with jurisdiction over site contamination) that may include, but are not limited to, dredging, placement of sand cover, or EMNR sand containing active carbon. The results of the sampling and remediation approaches shall be documented in a report to be reviewed and approved by the District, RWQCB, and any other appropriate regulatory agencies. 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
MM-HAZ-7: Compliance with Federal and State Permits: No Impedance of Investigative Order No. R9-2017-0081. Prior to in-water construction, the project proponent shall obtain all federal and state permits required for in-water construction activities and demonstrate to the District compliance with all permit conditions during in-water construction. In addition, the project proponent shall not impede the District's compliance with Investigative Order No. R9-2017-0081 as it pertains to the project site.				
Emit Hazardous Emissions or Handle Hazardous or Acutely Hazardous Materials, Substances, or Waste within One-Quarter Mile of an Existing or Proposed School	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.	NI	No mitigation is required.	NI
Be Located on a Site that Is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5	Impact-HAZ-1 , as described above.	PS	Implement MM-HAZ-1 through MM-HAZ-4 as described above.	LS
	Impact-HAZ-2 , as described above.	PS	Implement MM-HAZ-5 through MM-HAZ-7 as described above.	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
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	Impact-HAZ-3: Exacerbate an Existing Safety Hazard for People Residing or Working within the Vicinity of the Project Site. Because the project site is located within an airport land use plan, the proposed project could affect the safe and efficient utilization of the navigable airspace by aircraft or the operation of air navigation facilities due to the height of construction and operational equipment and structures. This could result in a safety hazard for people residing or working within the vicinity of the project site.	PS	MM-HAZ-8: Obtain ALUC and FAA Formal Review and Determination. Prior to initiation of project construction, the project proponent shall obtain FAA approval and ALUC review and determination for construction equipment and operational structures.	LS
Be Located Within the Vicinity of a Private Airstrip	The proposed project would not be located within the vicinity of a private airstrip, and, as a result, would not exacerbate an existing safety hazard for people residing or working within the vicinity of the project area.	NI	No mitigation is required.	NI
Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan	Implementation of the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LS	No mitigation is required.	LS
Expose People or Structures to a Significant Risk of Loss, Injury, or Death Involving Wildland Fires	Implementation of the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with	NI	No mitigation is required.	NI

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	wildlands by exacerbating the existing hazardous conditions.			
Cumulative Impacts				
The proposed project's incremental contribution to hazard and hazardous materials impacts would not be cumulatively considerable.				
4.8 Hydrology and Water Quality				
Project Impacts				
Violate any Water Quality Standards	Impact-HWQ-1: Potential to Violate Water Quality Standards or Waste Discharge Requirements for the Waterside Improvements. Expanded marina operations and boater activities have the potential to significantly impair water quality in the long term.	PS	MM-HWQ-1: Marina Best Management Practice Plan and Copper Reduction Measures. To reduce potential impacts on water quality, the project proponent shall prepare a Marina Best Management Practice Plan that shall be reviewed and approved by the District specifically identifying best management practices that will be used within the Marina to (1) minimize the pollutant load of runoff, including measures to prevent, eliminate, and/or otherwise effectively protect water quality of the Bay and (2) reduce inputs of total and dissolved copper resulting from increased berthing of boats. The Marina Best Management Practice Plan and Copper Reduction Measures shall be reviewed and approved by the District prior to the opening of marina operations. The Marina Operator shall be responsible for implementation and maintenance of the Marina Best Management Practice Plan and Copper Reduction Measures. At a minimum, the Marina Best Management Practice Plan shall include, but not be limited to, the following: <ul style="list-style-type: none"> Use of educational materials to be provided to boat owners and their crews that specify types of activities that shall be avoided or types of BMPs that shall be implemented in order to protect water quality, such as emptying of septic tanks and refueling only at approved locations, respectively. Recommendations to reduce oil leaks, include conducting periodic maintenance of all fuel lines, 	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>hoses, and gaskets; putting an oil-absorbent pad in the bilge; and installing a filtration system to remove oil from bilge water.</p> <ul style="list-style-type: none"> • Docking agreements containing specific use restrictions to prevent degradation of water quality, such as restricting boat repairs and cleaning operations within the marina. These specific use restrictions shall be similar to the recommendations from the <i>San Diego Bay Boaters Guide</i> (District 2006) and the California State Parks Division of Boating and Waterways and the California Coastal Commission Boating Clean and Green Program (California DBW 2017), both of which promote environmentally sound boating practices to marine business and boaters in California. • Implementation of an incentive structure within the docking agreements' rent rates for occupants with non-copper hull paint boats. • Identification of copper-free zones within the innermost portions of the marina, or limitation of copper hull paint boats to only well-flushed zones of the marina. • Hull bottom scraping and the use of toxic detergents to clean vessels would be prohibited, and no overwater repairs would be allowed. • Implementation and monitoring of the District-adopted in-water hull cleaning regulations. Ordinance No. 2681 requires the use of BMPs for businesses doing in-water hull cleaning. The In-Water Hull Cleaning Permit is a Bay-wide permit to reduce or eliminate copper pollution caused by in-water hull cleaning activities. • Limitations on in-slip hull cleaning (restrict or limit number of cleanings per year). 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<ul style="list-style-type: none"> No fueling on site. <p>MM-HWQ-2: Water Quality Sampling for Total and Dissolved Copper. Prior to the commencement of marina development, the project proponent shall conduct water quality sampling to develop an updated baseline for total and dissolved copper as follows:</p> <ul style="list-style-type: none"> Develop a sampling and analysis plan that will be reviewed and approved by the District prior to sampling. The plan shall identify a minimum of three points, denoting edges and midpoint of marina footprint. Sample for total and dissolved copper. The project proponent shall use an Environmental Laboratory Accreditation Program (ELAP)-certified laboratory for all analytical testing. Compare dissolved copper levels to Basin Plan water quality objectives. The project proponent shall submit the baseline monitoring report to the District for its review and approval. <p>The project proponent shall conduct ongoing water quality monitoring and testing for total and dissolved copper, following the process outlined above for the updated baseline sampling, over the course of marina development/occupancy at the following frequency for each phase of marina development:</p> <ul style="list-style-type: none"> After 50% occupancy, After 75% occupancy, and After full occupancy (95% slips under rental agreements). <p>Reports of all monitoring and testing results shall be prepared and paid for by the project proponent and submitted to the District's Development Services Department for review and approval within 30 days after the occupancy milestones identified above.</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>If at any time during monitoring the water quality equals or exceeds or the Basin Plan water quality objectives and comparison with the updated baseline indicates that the exceedance is a result of the proposed project, the project proponent shall immediately notify the District's Development Services Department and shall immediately cease further development and/or occupancy until additional BMPs addressing the issue are employed and reduce the copper levels.</p> <p>Water quality testing shall occur every year following full occupancy of the marina or until the marina is fully occupied by non-copper hulled boats. The project proponent shall prepare written reports of the water quality testing results annually and submit the reports to the District's Development Services Department for review and approval within 30 days after the end of each calendar year. Any exceedance attributed to the proposed project (based on a comparison with the updated baseline assessment) shall require additional BMPs if determined necessary to reduce total and dissolved copper to below the Basin Plan water quality objectives.</p>	
Deplete Groundwater Supplies	Implementation of the proposed project would not substantially deplete groundwater supplies or 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.	LS	No mitigation is required.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Alter the Existing Drainage Pattern of the Site or Area	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 substantially increase the rate or amount of surface runoff in a manner that would result in: (1) substantial erosion or siltation on or off site; or (2) flooding on or off site.	LS	No mitigation is required.	LS
Create or Contribute Runoff Water	Impact-HWQ-2: Potential to Provide Substantial Additional Sources of Polluted Runoff for the Waterside Improvements. The proposed marina expansion and breakwater have the potential to significantly impair water quality in the long term. The proposed marina expansion and breakwater could reduce tidal flushing and prevent pollutants or excess nutrients from being carried out to sea.	PS	MM-HWQ-3: Marina Design Measures to Promote Tidal Flushing. To reduce potential impacts on water quality, prior to the commencement of any construction of the marina, the project proponent shall design the marina so that structures do not significantly restrict the natural circulation of water caused by tidal action. <ul style="list-style-type: none"> • The expanded marina shall be designed to promote water circulation within the basin. The degree of flushing necessary to maintain water quality in a marina shall be balanced with safety, vessel protection, and sedimentation. • Flushing rates shall be maximized by proper design of the marina entrance channel and basin. • Prior to marina construction, a qualified engineer shall conduct a marina flushing analysis using an applicable tidal or hydrodynamic model to determine if sufficient flushing is provided by the proposed design or if forced flushing is necessary to enhance the flushing rate of the marina to meet Basin Plan water quality objectives. The engineer shall provide recommendations for forced flushing if determined necessary. The analysis methodologies and results shall be reviewed and approved by the District prior to marina construction. 	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Place Housing within a 100-Year Flood Hazard Area	Implementation of the proposed project would not place housing within a 100-year flood hazard area such that the existing environment is substantially affected.	LS	No mitigation is required.	LS
100-Year Flood Hazard Area	Implementation of the proposed project would not place within a 100-year flood hazard area structures that would impede or redirect flood flows.	LS	No mitigation is required.	LS
Risk of Loss, Injury, or Death Involving Flooding, Including Flooding as a Result of the Failure of a Levee or Dam	Implementation of the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving flooding.	LS	No mitigation is required.	LS
Contribute to Inundation by Seiche, Tsunami, or Mudflow	Implementation of the proposed project would not result in inundation by seiche or tsunami.	LS	No mitigation is required.	LS
Cumulative Impacts				
The proposed project's incremental contribution to cumulative hydrology and water quality impacts would not be cumulatively considerable.				
4.9 Land Use and Planning				
Project Impact				
Physically Divide an Established Community	Implementation of the proposed project would not physically divide an established community.	LS	No mitigation is required.	LS
Conflict with an Applicable Land	Impact LU-1: Potential Inconsistency with the PMP Due to	PS	Implement MM-AES-4 , as described above under <i>Aesthetics and Visual Resources</i> .	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
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	Displacement of Five Designated Vista Areas. Implementation of the proposed project would result in the displacement of five vista areas that are currently designated at the project site in the PMP, which would be inconsistent with the PMP.			
	Impact-LU-2: Potential for Insufficient Wayfinding and Accessibility Signage to Inform Public that Public Plaza and Park Areas Are Available for Public Use and Enjoyment Related to Impact-PS-3. As analyzed in Section 4.11, <i>Public Services and Recreation</i> , the proposed project would result in a significant impact if public access is limited within public plaza and park areas for a long period of time or if there is no wayfinding signage to inform the public that the recreational areas are available.	PS	Implement MM-PS-1 , as described below under <i>Public Services and Recreation</i> , and MM-AES-2 , as described above under <i>Aesthetics and Visual Resources</i> .	LS
	Impact-LU-3: Potential Inconsistency with the California Coastal Act's Requirement to Minimize Coastal Hazards through Planning and Development, Resulting in a Physical Impact on the Environment. Based on the best available science, the proposed project would place people or structures at risk due to SLR effects over the latter portion of the project's life, which would not minimize coastal hazards (i.e., SLR) and the effect on future	PS	MM-LU-1: Smart Design Decisions, Future Adaptation Strategies, and Operational Strategies. To reduce potential impacts related to bulkhead overtopping in mid-century during extreme storms, the project proponent shall implement the following into building design and construction, and during operation. Prior to the issuance of building permits for the project, the project applicant shall submit design plans and operational strategies to the District's Development Services Department for its review and approval. <i>Smart Design Decisions – to be incorporated into building design and as part of construction:</i>	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	amenities and facilities within the Coastal Zone. Therefore, if not mitigated, the proposed project would be inconsistent with the CCA.		<ul style="list-style-type: none"> Place 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. For example, this may include installing backwater valves at building connections or at outfalls, increasing outfall elevations when replacing them, installing forced mains, or increasing pump capacity. Ensure that all building exterior walls are composed of materials that have an impermeable and waterproof membrane. <p><i>Future Adaptation Strategies – to be incorporated into building design and as part of construction:</i></p> <ul style="list-style-type: none"> Ensure that building foundations 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. If replacing or constructing additional bulkheads, design key structural elements to allow future increases in the elevation of the bulkhead crest. Contribute a “fair share” payment in an amount to be determined by the District for the cost of construction of future bulkhead improvements that would offer direct flood mitigation benefits to the project site. 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p><i>Operational Strategies – to be implemented during operation and updated every 5 years using the best available science:</i></p> <ul style="list-style-type: none"> Establish an early warning system to monitor the risk of flooding. An early warning system should consist of: <ul style="list-style-type: none"> 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 regularly checking the water levels along the project bulkhead as the storm progresses. Establish emergency evacuation procedures for people to relocate to higher ground on short notice. Obtain or execute on-call contracts for backup power generators for critical functions, such as the operation of one elevator and emergency lighting systems. Also obtain or execute on-call contracts for portable pumps, and ensure that there is sufficient fuel to operate these. Establish protocols for operating said generators and pumps during storm events or other such events. Before a storm that is forecasted to overtop the bulkheads, deploy sandbags or inflatable barriers. Over time, monitor and track the rainfall amounts and storm projections that result in localized flooding and update the deployment protocol to account for this experience. Before a storm that is forecasted to result in localized flooding, test emergency power sources and pumps and ensure that there is sufficient fuel to run these, and inspect building exterior to ensure that there are no penetrations that lack flood 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			proofing. If cracks or leaks are identified, seal them or temporarily cover with a flood-proof material, to the extent feasible, prior to the storm. Over time, monitor and track the rainfall amounts and storm projections that result in localized flooding and update the deployment protocol to account for this experience.	
			<ul style="list-style-type: none"> Restrict public access during storms or flooding events if water levels are forecasted to rise to unsafe levels. 	
	Impact LU-4: Potential Inconsistency with the ALUCP. Implementation of the proposed project would potentially be inconsistent with the ALUCP if an FAA determination and ALUC Consistency Determination are not obtained.	PS	Implement MM-HAZ-8 as described above under <i>Hazards and Hazardous Materials</i> .	LS
Conflict with any Applicable Habitat Conservation Plan or Natural Community Conservation Plan	Implementation of the proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan.	LS	No mitigation is required.	LS
Cumulative Impacts				
The proposed project's incremental contribution to cumulative land use and planning impacts would not be cumulatively considerable.				
4.10 Noise and Vibration				
Project Impacts				
Expose Persons to or Generate Noise Levels in Excess of	Impact-NOI-1: Exceedance of an Adopted Noise Standard During Project Construction. Noise impacts due to project construction would exceed 75 dBA 12-hour L_{eq} between 7	PS	MM-NOI-1: Avoid or Reduce Construction Noise from Impact-Type Pile Driving During Both Landside and Marina Construction. The project proponent and its construction contractor shall prohibit all pile driving activities outside the hours of 7:00 a.m.	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Established Standards	a.m. and 7 p.m. at noise-sensitive receptors. These impacts would occur at Embarcadero Marina Park South and Fifth Avenue Landing Park. Impacts would primarily be caused by activities that include pile driving; however, some impacts at Fifth Avenue Landing Park are also related to overlapping activities that would lead to an increased level of construction equipment usage at the site.		<p>to 7:00 p.m. on Monday through Saturday. No associated activity shall occur at any time on Sundays or legal holidays. Construction personnel shall not be permitted on the project site (including laydown and storage areas), and material or equipment deliveries and collections shall not be permitted during the prohibited hours. In addition, impact pile driving shall be avoided by using alternative, quieter installation methods such as press-in piles or drilled pile techniques (e.g., cast-in-drilled-hole, poured-in-place). If the project proponent and its construction contractor determine that alternative pile installation methods are infeasible at some or all areas of the project site and that such areas require impact pile driving, then an acoustical shroud shall be utilized, as described below. Alternative pile installation methods shall only be considered infeasible if the project proponent and its construction contractor provide sufficient evidence, to the satisfaction of District Development Services Department, that such methods are infeasible based on technical, structural, geological, safety, and/or cost considerations.</p> <p>Wherever impact pile driving is required for landside or waterside construction, it shall be conducted only with the use of an acoustical shroud to reduce noise levels. The shroud shall enclose the pile and hammer on all sides and shall extend from the water or ground surface to a point at least 5 feet above the top of the pile to be driven. The acoustical shroud, held in place by a crane, shall surround the pile driving assembly during pile driving activities, and shall be constructed as follows.</p> <ol style="list-style-type: none"> A metal framework (cylindrical or square/rectangular) shall be constructed for the shroud to support the weight of the attached acoustical blankets. The framework shall be centered on the pile to be driven. 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<ul style="list-style-type: none"> b. Acoustical blankets shall be firmly secured to the outside of the framework with the sound-absorptive side of the blankets oriented toward the interior of the shroud (i.e., toward the pile). The blankets shall be overlapped by at least 6 inches at seams and taped to eliminate gaps. The largest blankets available shall be used to form the shroud in order to minimize the number of seams. The blankets shall be draped to the water or ground surface to eliminate any gaps at the base of the shroud. c. The number and size of gaps needed for the safe operation of the pile driver shall be kept to a minimum. d. The acoustical blankets shall provide a minimum sound transmission class of 28 and a minimum noise reduction coefficient of 1.00. e. The acoustical blankets shall be waterproof, oil- and UV-resistant, anti-fungal, and flame retardant. f. If necessary, a view window may be incorporated into the acoustical blankets in order to facilitate the operation of the pile driver. The window shall be constructed of clear vinyl material that weighs at least 1 pound per square foot. The seams where the window attaches to the acoustical blankets shall be tightly sealed to eliminate gaps. The size of the window shall be kept to the minimum required for safe operation of the pile driver. At all times the window shall be oriented away from the nearby parks (Embarcadero Marina Park North and South, and Fifth Avenue Landing Park). 	
			<p>MM-NOI-2: Notify Users of Nearby Recreational Areas. If impact-type pile driving construction techniques cannot be avoided, the project proponent or</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>its construction contractor shall post public noticing not less than 48 hours prior to initiating landside or waterside pile driving activities within 700 feet of a public recreational area (e.g., Embarcadero Marina Park South and Fifth Avenue Landing Park). The project proponent shall include this measure in the construction specification documents for the proposed project. Prior to issuance of the construction specification documents for bid, the project proponent shall submit a copy of the construction specification documents and the proposed public notice sign to the District's Development Services Department for approval. Prior to the commencement of impact-type pile driving activities, the project proponent shall submit documentation (including photographs) to the District's Development Services Department demonstrating compliance with this measure.</p> <p>MM-NOI-3: Reduce Construction Noise from Other (Non-Pile Driving) Activities. During all construction activity, the project proponent and its construction contractor shall implement the following techniques and best practices to reduce noise levels from non-pile driving construction activities.</p> <ol style="list-style-type: none"> Prohibit all construction activities outside the hours of 7:00 a.m. to 7:00 p.m. on Monday through Saturday. No construction activity shall occur at any time on Sundays or legal holidays. Construction personnel shall not be permitted on the project site (including laydown and storage areas), and material or equipment deliveries and collections shall not be permitted during the prohibited hours. Ensure that all construction equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency complies with 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>such regulation while in the course of project activity and use on site.</p> <p>c. Properly maintain all construction equipment used during project construction and remove any equipment from service, until it is properly repaired, that generates increased noise levels because of any defect or damage.</p> <p>d. Equip all construction equipment, where applicable, with properly operating and maintained mufflers, air-inlet silencers, and any other shrouds, shields, or other noise-reducing features that meet or exceed original factory specifications.</p> <p>e. Operate construction equipment only when necessary, and switch off powered equipment when not in use. Prohibit the idling of inactive construction equipment for more than 2 minutes.</p> <p>f. Restrict the use of noise-producing signals, including horns, whistles, alarms, and bells, for safety warning purposes only.</p> <p>g. Install temporary noise barriers around the project site during the demolition, site preparation (including dewatering and shoring), excavation, and foundation phases of construction, to the extent practicable. For periods (if any) when these construction activities are restricted to a smaller portion of the whole site, barriers may be installed around that smaller portion of the site. Alternatively, if a site perimeter barrier cannot be constructed, a localized barrier shall be installed around any noisy stationary construction equipment such as generators or dewatering pumps. For barriers to be effective, they should break the line of sight between the construction equipment and any noise-sensitive receiver. These barriers may be constructed as follows:</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<ul style="list-style-type: none"> 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 and lined with sound-absorptive material (the sound-absorptive material should face the construction equipment). From acoustical blankets hung over or from a supporting frame. The blankets should provide a minimum sound transmission class rating of 28 and a minimum noise reduction coefficient of 0.80 and should be firmly secured to the framework with the sound-absorptive side of the blankets oriented toward the construction equipment. The blankets should be overlapped by at least 6 inches at seams and taped so that no gaps exist. The largest blankets available should be used in order to minimize the number of seams. The blankets shall be draped to the ground to eliminate any gaps at the base of the barrier. <p>h. Train all construction employees in the proper operation and use of the equipment they use during the course of their work.</p>	
	Impact-NOI-2: Potential Exceedance of an Adopted Noise Standard Due to Onsite Operational Noise from Mechanical Equipment. Potentially significant noise impacts could occur due to onsite operation of mechanical equipment for the proposed project, which could exceed the standards of the City of San Diego's noise ordinance.	PS	MM-NOI-4: Design and Construct Project Facilities to Control Noise from All Onsite Mechanical Equipment. The project proponent shall design and construct all building systems and mechanical equipment proposed as part of the project to ensure their compliance with the City of San Diego noise ordinance (Municipal Code section 59.5.0401). To achieve this performance standard, during the architectural and engineering design phase of each element of the proposed project (e.g., market-rate hotel	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			tower, lower-cost visitor-serving hotel, retail, marina), and prior to the issuance of any building permits for the proposed project, the project proponent shall retain an acoustical consultant to evaluate the design and provide recommendations, as necessary, to ensure that all aspects of the proposed project, including without limitation the mechanical equipment and other onsite stationary sources (e.g., trash compactors, loading docks), shall be constructed so as to comply with the City of San Diego noise ordinance (Municipal Code section 59.5.0401). Such recommendations may include, but are not limited to, changes in equipment locations; sound power limits or specifications; rooftop parapet walls; acoustical absorption, louvers, screens, or enclosures; or intake and exhaust silencers.	
	Impact-NOI-3: Potential Exceedance of an Adopted Noise Standard Due to Outdoor Special Events. Outdoor event noise has the potential to exceed the standards of the City of San Diego's noise ordinance dependent upon the exact nature and timing of events and the sound system used.	PS	MM-NOI-5: Incorporate Operational/Contract Specifications to Minimize Exterior Special Event Noise. The project proponent and any future owner/operator of the proposed project shall observe the following requirements and/or incorporate them into the contract specifications for outdoor events: 1. Any exterior special event associated with the proposed project shall not exceed 65 dBA L_{eq} at the proposed project's property line between the hours of 7:00 a.m. and 7:00 p.m. as mandated by the City of San Diego Municipal Code 59.5.0401. Any concert associated with the proposed project shall not exceed 60 dBA L_{eq} at the project's property line between the hours of 7:00 p.m. and 7:00 a.m. as mandated by the City of San Diego Municipal Code 59.5.0401. 2. Any event that fails to comply with requirement 1, above, shall only be permitted if an applicable event permit, or variance or exemption from the code, has	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>been sought and granted by the appropriate agency (City or District).</p> <p>3. The project shall comply with all City and District requirements related to hosting outdoor events.</p>	
Expose Persons to or Generate Excessive Groundborne Vibration or Groundborne Noise Levels	Implementation of the proposed project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels.	LS	No mitigation is required.	LS
Permanent Increase in Ambient Noise Levels	Impact-NOI-4: Potentially Substantial Increase in Ambient Noise Levels Due to Onsite Operational Noise from Mechanical Equipment. Potentially significant noise increases could occur due to onsite project operations if mechanical systems and other stationary noise sources (e.g., trash compactors, loading docks) are not properly designed to control noise.	PS	Implement MM-NOI-4 , as described above.	LS
	Impact-NOI-5: Potentially Substantial Increase in Ambient Noise Levels Due to Outdoor Special Events. Outdoor event noise has the potential to increase existing ambient noise levels by more than 5 dB at nearby noise-sensitive receptors dependent upon the exact nature and timing of events and the sound system used.	PS	Implement MM-NOI-5 , as described above.	SU
Temporary or Periodic Increase in	Impact-NOI-6: Significant Temporary Increase in Ambient Noise Levels During Project	PS	Implement MM-NOI-1 , MM-NOI-2 , and MM-NOI-3 , as described above.	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Ambient Noise Levels	Construction. Significant noise increases of 5 dBA or more would occur at noise-sensitive receptors during project construction. These impacts would occur at Embarcadero Marina Park North and South, and Fifth Avenue Landing Park during multiple phases of project construction, and at homes on the north side of East Harbor Drive during simultaneous pile driving for the market-rate hotel tower and meeting areas, and the low-cost visitor-serving hotel (phases 2.1 and 3.1 combined).			
Exacerbate the Existing Exposure of People within 2 Miles of a Public Airport or Public Use Airport	Implementation of the proposed project would not exacerbate the existing exposure of people residing or working in the project area within 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.	NI	No mitigation is required.	NI
Exposure of People Residing or Working in the Project Area within the Vicinity of a Private Airstrip to Excessive Noise Levels	Implementation of the proposed project would not exacerbate the existing exposure of people residing or working in the project area within the vicinity of a private airstrip to excessive noise levels.	NI	No mitigation is required.	NI
Cumulative Impacts				
Temporary or Periodic Increase in	Impact-C-NOI-1: Exacerbate Significant Construction Noise Levels if Cumulative Construction	PS	Implement MM-NOI-1 , MM-NOI-2 , and MM-NOI-3 , as described above.	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Ambient Noise Levels	Activities Overlap. Project-related construction noise in excess of established City standards would be exacerbated by construction activity for related projects. It is noted that this impact would only occur if construction activities for related projects within 1,500 feet of the proposed project site (i.e., Ballpark Village Parcel D and the Bayside Performance Park), were to overlap with proposed project construction.			
4.11 Public Services and Recreation				
Project Impacts				
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.	LS	No mitigation is required.	LS
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	LS	No mitigation is required.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	performance objectives for police protection.			
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.	NI	No mitigation is required.	LS
Parks	Impact-PS-1: Construction of the Rooftop Public Plaza and Park Areas Would Contribute to Significant Impacts Related to Impact-AES-1, Impact-AES-4, Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, Impact-HAZ-1, Impact-HAZ-3, Impact-NOI-1, Impact-NOI-6, Impact-TRA-1, Impact-TRA-2, and Impact-TRA-6. As analyzed in Sections 4.1, <i>Aesthetics and Visual Resources</i> ; 4.4, <i>Cultural Resources</i> ; 4.5, <i>Geology and Soils</i> ; 4.7, <i>Hazards and Hazardous Materials</i> ; 4.10, <i>Noise and Vibration</i> ; and 4.12, <i>Transportation, Circulation, and Parking</i> , the proposed project would result in significant impacts as identified by Impact-AES-1, Impact-AES-4, Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, Impact-HAZ-1, Impact-HAZ-3, Impact-NOI-1,	PS	Implement MM-AES-1 and MM-AES-5 as described in, <i>Aesthetics and Visual Resources</i> , above; MM-CUL-1 and MM-CUL-2 as described in <i>Cultural Resources</i> , above; MM-GEO-1 as described in <i>Geology and Soils</i> , above; MM-HAZ-1 through MM-HAZ-4 and MM-HAZ-8 as described in <i>Hazards and Hazardous Materials</i> , above; MM-NOI-1 , MM-NOI-2 , and MM-NOI-3 as described in <i>Noise and Vibration</i> , above; and MM-TRA-1 and MM-TRA-7 as described <i>Transportation, Circulation, and Parking</i> , below.	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	<p>Impact-NOI-6, Impact-TRA-1, Impact-TRA-2, and Impact-TRA-6. Construction of the public plaza and park areas would be a component of the proposed project that would contribute to these significant impacts. As such, the impacts from the construction of the public plaza and park areas would be considered significant.</p>			
	<p>Impact-PS-2: Operation of the Rooftop Public Plaza and Park Areas Would Contribute to Significant Impacts Related to Impact-AES-2, Impact-TRA-2, Impact-TRA-3, and Impact-TRA-5. As analyzed in Sections 4.1 <i>Aesthetics and Visual Resources</i>; 4.10, <i>Noise and Vibration</i>; and 4.12, <i>Transportation, Circulation, and Parking</i>, the proposed project would result in significant impacts as identified by Impact-AES-2, Impact-AES-3, Impact-NOI-3, Impact-NOI-5, Impact-TRA-3, Impact-TRA-4, and Impact-TRA-7. Operation of the public plaza and park areas would be a component of the proposed project that would contribute to these significant impacts. As such, the impacts from the operation of the public plaza and park areas would be considered significant.</p>	PS	Implement MM-AES-2, MM-AES-3, and MM-AES-4 as described in <i>Aesthetics and Visual Resources</i> , above; MM-NOI-5 as described in <i>Noise and Vibration</i> , above; and MM-TRA-2 through MM-TRA-5 and MM-TRA-8 as described in <i>Transportation, Circulation, and Parking</i> , below.	SU
	<p>Impact-PS-3: Potential for Insufficient Wayfinding and Accessibility Signage to Inform</p>	PS	MM-PS-1: Operation Requirements for the Multifunctional Plaza and Lawn, Public Park Plaza, and Public Park Plaza and Public Observation	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	<p>Public that Public Plaza and Park Areas Are Available for Public Use and Enjoyment. Limited public access for long periods of time due to hotel programming could result in the perception that the entire 1.96-acre public plaza and park area is not open to the public while private events are in session. Additionally, because the rooftop public plaza and park area and terraces are raised from ground level, the public may not readily know that these recreational areas are available for public use. As such, without sufficient wayfinding signage, the general public may be unaware of their existence and availability. These impacts would be considered significant.</p>		<p>Terrace Areas. Under no circumstances shall the closure of the public plaza and park areas for private hotel events be more than the following percentages.</p> <ul style="list-style-type: none"> • Multifunctional Plaza and Lawn (35,940 square feet): 50% private access (50% public access). This area would be available for private events 50% of the year, which is defined as the equivalent of 182.5 days per year, inclusive of event setup and breakdown time. When not in use for private events, this area would be accessible for use by the public at no cost 50% of the year (182.5 days). For clarification purposes, if a private event occupies the Multifunctional Plaza and Lawn for part of a day, it shall count as occupying the Multifunctional Plaza and Lawn for an entire day when calculating the 182.5-day private event limit. • Public Park Plaza (39,860 square feet): 15% private access (85% public access). This area would be available for private events 15% of the year, which is defined as the equivalent of 55 days per year, inclusive of event setup and breakdown time. When not in use for private events, this area would be accessible for use by the public at no cost 85% of the year (310 days). For clarification purposes, if a private event occupies the Public Park Plaza for part of a day, it shall count as occupying the Public Park Plaza for an entire day when calculating the 55-day private event limit. • Public Park Plaza and Public Observation Terrace (6,500 square feet): 0% private access (100% public access). This area would be not be available for private events, and would be open to the public at no cost 100% of the year. <p>If the private event area is blocked off from the public usable area, such barriers shall not be solid materials but shall be a material like ropes. To ensure the private</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>event area is restored for the public use, all trash and debris shall be immediately picked up and disposed of appropriately during and after the private event.</p> <p>During times when the Multifunctional Plaza and Lawn area or Public Park Plaza area is open to the public (i.e., during non-private event times), the hours of operation shall be the same as the District's park hours of operation.</p> <p>During all private events, clear signage shall be placed in publicly visible locations (i.e., not posted inside the hotel) at the grand staircase, market-rate hotel tower staircase, public observation terrace, optional pedestrian bridge (if developed), and two locations along the existing Embarcadero Promenade, that indicate the Multifunctional Plaza and Lawn area and/or the Public Park Plaza areas, if applicable, are open to the public. Clear signage shall be placed at the Public Park Plaza and Public Observation Terrace that indicates it is open to the public.</p> <p>After project construction is complete, on January 31 of each year, the project proponent shall submit an annual public access usage report to the District's Development Services Department that demonstrates, for the preceding year, that the Multifunctional Plaza and Lawn, Public Park Plaza, and Public Park Plaza and Public Observation Terrace are being used for public access and private access (for private events) as follows and consistent with this MM-PS-1:</p> <ul style="list-style-type: none"> • Multifunctional Plaza and Lawn (50% public access/50% private access) • Public Park Plaza (85% public access/15% private access) • Public Park Plaza and Public Observation Terrace (100% public access) 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>The report shall be broken down by the Multifunctional Plaza and Lawn and Public Park Plaza areas and shall list the date, private event, start and end times, duration of each event, setup and breakdown time, and total number of days and percentage of private use for that year. Furthermore, the report shall contain confirmation, such as photographs or a signature by the hotel manager, that for each private event, signage indicating public use of the remaining area (if applicable) was placed consistent with this MM-PS-1. For the Public Park Plaza and Public Observation Terrace area, the report shall confirm that this area was accessible to the public 100% of the year and contained signage indicating such.</p> <p>MM-AES-2: Install Wayfinding and Public Accessibility Signage</p> <p>Implement MM-AES-2, as described above.</p>	
	Impact-PS-4: Limited Public Access to the Marina. The marina expansion component of the proposed project would not offer lower-cost slips or no-cost public slips. Consequently, a significant impact related to public accessibility of the proposed marina may occur.	PS	MM-PS-2: Low-Cost or No-Cost Boat Slip. The project proponent shall provide at least one boat slip for a vessel of a maximum size of 30 feet at low cost or no cost for public use. To ensure sufficient availability to the public, berthing at the low-cost or no-cost slip shall be a maximum of 6 hours. Signage shall be provided and availability of the low-cost or no-cost slip shall be posted on the project proponent's website.	LS
Increase the Use of Existing Neighborhood and Regional Parks or Other Recreational Facilities	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.	LS	No mitigation is required.	LS
Require the Construction or Expansion of	Impact-PS-1 , as described above.	PS	Implement MM-AES-1 and MM-AES-5 as described in, <i>Aesthetics and Visual Resources</i> , above; MM-CUL-1 and MM-CUL-2 as described in <i>Cultural Resources</i> , above;	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Recreational Facilities			MM-GEO-1 as described in <i>Geology and Soils</i> , above; MM-HAZ-1 through MM-HAZ-4 and MM-HAZ-8 as described in <i>Hazards and Hazardous Materials</i> , above; MM-NOI-1 , MM-NOI-2 , and MM-NOI-3 as described in <i>Noise and Vibration</i> , above; and MM-TRA-1 and MM-TRA-7 as described <i>Transportation, Circulation, and Parking</i> , below.	
	Impact-PS-2 , as described above.	PS	Implement MM-AES-2 , MM-AES-3 , and MM-AES-4 as described in <i>Aesthetics and Visual Resources</i> , above; MM-NOI-5 as described in <i>Noise and Vibration</i> , above; and MM-TRA-2 through MM-TRA-5 and MM-TRA-8 as described in <i>Transportation, Circulation, and Parking</i> , below.	SU
Cumulative Impacts				
The proposed project's incremental contribution to cumulative impacts related to public services and recreation would not be cumulatively considerable.				
4.12 Transportation, Circulation, and Parking				
Project Impacts				
Conflict with an Applicable Plan, Ordinance, or Policy	Impact-TRA-1: Construction-Related Impacts along the 28th Street Roadway Segment Between National Avenue and Boston Avenue Under Existing Plus Project Construction. Construction of the proposed project would worsen the existing LOS along 28th Street between National Avenue and Boston Avenue from an already unacceptable LOS E to LOS F. Therefore, impacts would be significant.	PS	MM-TRA-1: Transportation Demand Management Plan. Prior to commencing any construction or demolition activities, the project proponent shall provide a Transportation Demand Management (TDM) Plan to the San Diego Unified Port District and City of San Diego for approval that shall limit the number of construction worker trips that travel through the affected intersections during peak periods to 50 trips. The TDM plan shall incorporate TDM strategies to be implemented during construction, including, but not limited to: <ul style="list-style-type: none"> Implementation of a ride-sharing program to encourage carpooling among the workers. Adjustment of work schedules (e.g., arrive before 7 a.m. or after 9 a.m.; leave before 4 p.m. or after 6 	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>p.m.) so that workers do not access the site during peak hours.</p> <ul style="list-style-type: none"> • Provision of offsite parking locations for workers outside of the area with shuttle services to bring them on site, as identified in MM-TRA-7. • Provision of subsidized transit passes for construction workers. 	
	<p>Impact-TRA-2: Construction-Related Impacts on Study Area Intersections Under Existing Plus Project Construction: Sampson Street/Harbor Drive (AM and PM Peak Hours) and I-5 SB On-Ramp/Boston Avenue (PM Peak Hour). Construction of the proposed project would worsen the existing delay experienced by more than 2.0 seconds during peak hours at three study area intersections currently operating at LOS E or F, including Sampson Street and Harbor Drive (during the AM peak hour when the project reaches 90% of its construction traffic trip generation and during the PM peak hour when the project reaches 65% of its construction traffic trip generation) and I-5 SB on-ramp and Boston Avenue during the PM peak hour (when the project reaches 3% of its construction traffic trip generation). Therefore, impacts would be significant.</p>	PS	Implement MM-TRA-1 , as described above.	SU
	<p>Impact-TRA-3: Impact-TRA-3: Operation-Related Impacts on</p>	PS	<p>MM-TRA-2: Signalization of the 15th Street/F Street Intersection. Prior to issuance of occupancy permits,</p>	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	<p>Study Area Intersections Under Existing Plus Project Conditions: 15th Street/F Street (PM Peak Hour); 17th Street/G Street (PM Peak Hour); 19th Street/J Street (PM Peak Hour). Operation of the proposed project would worsen the existing delay experienced during the peak hours at three study area intersections: 15th and Grape Streets by 15.8 seconds (LOS F) during the PM peak hour, 17th and G Streets by 28.0 seconds (LOS F) during the PM peak hour, and 19th and J Streets by 18.6 seconds (LOS F) during the PM peak hour, where a threshold of 1.0 second of additional delay applies to LOS F. Therefore, impacts would be significant.</p>		<p>the project proponent shall pay for or directly install a traffic signal at the intersection of 15th Street and F Street. Installation of the traffic signal will require approval from the City of San Diego. After installation is complete, the project proponent shall provide proof of signalization to the District for verification before issuance of the occupancy permits may occur.</p> <p>MM-TRA-3: Signalization of the 17th Street/G Street Intersection. Prior to issuance of occupancy permits, the project proponent shall pay for or directly install a traffic signal at the intersection of 17th Street and G Street. Installation of the traffic signal will require approval from the City of San Diego. After the required payment or installation is complete, the project proponent shall provide proof of completion to the District for verification before issuance of the occupancy permits may occur.</p> <p>MM-TRA-4: Restriping of Northbound Left-Turn Lane at 19th Street/J Street Intersection. Prior to the issuance of occupancy permits, the project proponent shall pay for or directly implement restriping the northbound left-turn lane into a northbound left-turn and through-share lane at the intersection of 19th Street and J Street. Restriping lanes will require approval from the City of San Diego. The project proponent shall provide proof of payment or completion to the District for verification before issuance of the occupancy permits may occur.</p>	
	<p>Impact-TRA-4: Operation-Related Impacts on a Study Area Freeway Segment Under Existing Plus</p>		<p>MM-TRA-5: Compliance with San Diego Forward: The Regional Plan, I-5 Operational Improvements. Prior to the issuance of occupancy permits, Caltrans shall install the following I-5 operational improvements</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	Project Conditions: NB I-5 Between Grape Street and First Avenue (AM Peak Hour). Operation of the proposed project would worsen the V/C ratio by 0.012 along the segment of NB I-5 between Grape Street and First Avenue (currently operating at LOS E) during the AM peak hour, which would exceed the threshold of 0.010 for a segment operating at LOS E. This impact would be significant.		for the segment of northbound I-5 between Grape Street and First Avenue, in compliance with <i>San Diego Forward: The Regional Plan</i> prepared by SANDAG (SANDAG 2015).	
Conflict with an Applicable Congestion Management Program	Implementation of the proposed project would not conflict with an applicable congestion management program, including, but not limited to, LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.	LS	No mitigation is required.	LS
Result in a Change in Air Traffic Patterns	Implementation of the proposed project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	LS	No mitigation is required.	LS
Substantially Increase Hazards due to a Design Feature	Implementation of the proposed project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	LS	No mitigation is required.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Result in Inadequate Emergency Access	Implementation of the proposed project would not result in inadequate emergency access.	LS	No mitigation is required.	LS
Conflict with Adopted Policies, Plans, or Programs	Impact-TRA-5: Temporary Closure of Embarcadero Promenade During Construction. During construction of the proposed project, the portion of the Embarcadero Promenade fronting the project site would remain open, but would be narrowed temporarily from 35 feet to 15 feet. However, the Embarcadero Promenade would be closed for approximately 18 months during construction of the market-rate hotel tower lobby, which spans the entire width of the Embarcadero Promenade, and therefore would require pedestrian traffic to be re-routed. As such, the proposed project would result in a temporary significant impact on public access along the Embarcadero Promenade during construction.	PS	MM-TRA-6: Maintain Public Access Along Embarcadero Promenade During Construction. The project proponent, in coordination with the District, shall ensure that public access is maintained along the Embarcadero Promenade during construction by providing reduced or replacement points of public access. The project proponent shall install and maintain clear wayfinding and public access signage in publicly visible locations (i.e., not posted inside the hotel) adjacent to and at the public entrances to the reduced or replacement public access areas.	LS
Result in Inadequate Parking Supply	Impact-TRA-6: Insufficient Parking Supply During Construction. The construction phase would experience up to 495 construction worker vehicles traveling to the site per day that would require parking. The project site would not be able to accommodate parking for that many vehicles due to onsite staging of materials and construction equipment, as well as the phasing of construction	PS	MM-TRA-7: Provide Offsite Parking and Shuttle Transportation and Require Incentives for Transit Use and Wayfinding Signage for Visitors. Prior to the commencement of any construction activity, the project proponent shall provide an offsite parking location at the R.E. Staite property at 2145 East Belt Street, San Diego, CA for construction workers and shall provide shuttle service from the offsite parking location to the project site and back. In addition, the project proponent shall provide incentives for construction workers to use public transit. Workers who cannot commute by transit	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	that would be occurring. In addition, existing parking would be removed from service once onsite grading and demolition activities begin.		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, the project proponent shall provide conspicuous on-street signage to direct waterfront visitors to available parking facilities throughout the duration of the construction period.	
	Impact-TRA-7: Insufficient Parking Supply During Operation. As proposed, the project would provide 263 onsite parking spaces through a combination of valet and striped spaces. Per the Tideland Parking Guidelines, the proposed project is required to provide an adjusted rate of 472 parking spaces. Therefore, the proposed project would result in a parking deficit of 209 spaces during its highest demand period. A significant impact on parking supply would occur.	PS	MM-TRA-8: Implement a Parking Management Plan that Provides Parking Management Strategies. Prior to the issuance of the certificate of occupancy for market-rate hotel operations, the project proponent shall submit a Parking Management Plan to the District for approval. Upon approval and during project operations, the project proponent shall provide a quarterly report on the Parking Management Plan to the District's Development Services Department, which shall be subject to verification by District staff. The project proponent shall implement the following parking management strategies and any other strategies identified in the Parking Management Plan to mitigate the projected parking deficiency: <ul style="list-style-type: none"> <i>Valet Parking</i> – Secure 209 parking spaces (Secured Parking) at one or more offsite parking lots and provide a valet service that allows guests to utilize the secured spots, in order to avoid overflow in the immediate surrounding parking areas. Prior to commencement of hotel operations, the project proponent will enter into a contract or agreement with a parking operator or equivalent entity securing the Secured Parking and provide the agreement to the District's Development Services Department. The agreement shall be updated and submitted to the District's Development Services 	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>Department on an annual basis to provide proof of maintaining said agreement.</p> <p>Until a long-term parking solution is identified for the area, after project construction is complete, on January 15 of each year the project proponent shall submit an annual parking implementation report to the District's Development Services Department for its review, which shall include the following components:</p> <ul style="list-style-type: none"> ○ A specific peak parking implementation program, broken down into morning, afternoon, and evening timeframes, in its annual submittal. ○ Evidence in the form of parking utilization counts that show that sufficient valet spaces are available to meet the project's overflow parking demand from the parking lot or valet vendor. The parking counts shall be conducted at times throughout the day on both weekdays and weekends, during both the summer and winter, and shall be compared to projected and actual valet use at the project site. ○ The location of the lots available for valet use and the number of spaces available in each lot based upon recent parking utilization counts. ○ The dates, times, and duration of any period the valet was closed due to no available parking spaces. <p>In the event that the District establishes a long-term parking program for the area, the project proponent shall contribute a fair share to the analysis, design, and construction and operating costs associated with the program.</p> <ul style="list-style-type: none"> • <i>Transportation Network Companies</i> – The project proponent shall coordinate with transportation 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>companies (such as Lyft and Uber) and shall provide designated pick-up/drop-off locations to encourage hotel patrons to utilize this mode of transportation as an alternative to driving their personal vehicles.</p> <ul style="list-style-type: none"> • <i>Water Taxi</i> – The project proponent shall provide a direct path and wayfinding signage from the Water Taxi Landing to the hotel facilities, and provide brochures and other materials in the hotel lobbies to inform hotel guests of the water taxi service and the destinations that can be reached. • <i>Bike Racks</i> – The project proponent shall provide bike racks to accommodate a minimum of 24 bicycle parking spaces on the project site or adjacent thereto on the Embarcadero Promenade to encourage employees/patrons to bike to the proposed project. • <i>Bike Share Stations</i> – The project proponent shall coordinate with companies like DECOBIKE to ensure a bike share station is maintained within walking distance (approximately 1,000 feet) to the proposed project. If a third-party bikeshare service cannot be provided, the project proponent shall provide bikes for its guests to rent. • <i>Public Transit</i> – On its website, the project proponent shall promote and encourage employees and patrons to utilize alternative modes of transportation as an alternative to driving their personal vehicles. • <i>Public Transit Subsidies for Employees</i> – The project proponent shall provide reimbursement or subsidies for public transportation costs for all employees. The level of transit reimbursements and subsidies shall be based on the standards set forth by the California Air Pollution Control Officers 	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>Association resource document <i>Quantifying Greenhouse Gas Mitigation Measures</i> (August 2010) to achieve a reduction in project vehicle miles traveled by 20%.</p> <ul style="list-style-type: none"> • <i>Port of San Diego (formerly Big Bay) Shuttle</i> – The project proponent shall participate in the Port of San Diego Shuttle system as a condition precedent to issuance of a certificate of occupancy for the market-rate hotel or lower-cost visitor-serving hotel, whichever hotel is completed first. Participation may include: collection of fares, advertising, voluntary tenant participation, mandatory tenant participation at the time of issuance of coastal development permits for District tenant projects within the South Embarcadero, and other forms of participation as identified by the District. • <i>Airport Shuttle</i> – The project proponent shall provide a shuttle to and from the airport for hotel guests. 	
Cumulative Impacts				
	Impact-C-TRA-1: Near-Term Construction-Related Impact on the Roadway Segment of 28th Street between National Avenue and Boston Avenue. Construction of the proposed project would worsen the existing LOS along 28 th Street between National Avenue and Boston Avenue from an already unacceptable LOS E to LOS F under 2021 near-term conditions. Therefore, impacts would be significant.	PS	Implement MM-TRA-1 , as described above.	SU
	Impact-C-TRA-2: Near-Term Construction-Related Impacts on	PS	Implement MM-TRA-1 , as described above.	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	<p>Study Area Intersections: Sampson Street/Harbor Drive; I-5 Southbound On-Ramp/Boston Avenue. Construction of the proposed project would worsen the existing delay experienced during peak hours at the study area intersections of Sampson Street and Harbor Drive and I-5 southbound on-ramp and Boston Avenue by more than 2.0 seconds under 2021 near-term conditions.</p>			
	<p>Impact-C-TRA-3: Failing Roadway Segment – Harbor Drive between Laurel Street and Hawthorne Street (Near-Term). Near-term operation of the proposed project would worsen conditions along Harbor Drive between Laurel Street and Hawthorne Street, which operates at an LOS F, by increasing the V/C ratio by more than 0.01.</p>	PS	No feasible mitigation identified to improve operations.	SU
	<p>Impact-C-TRA-4: Failing Intersections in AM Peak Hour in Near-Term Cumulative Conditions: 16th Street/F Street; Logan Avenue/I-5 Southbound Off-Ramp; and Logan Avenue/I-5 Southbound On-Ramp. Operation of the proposed project would worsen existing delays at failing study area intersections during the AM peak hour under near-term conditions as follows.</p> <ul style="list-style-type: none"> 16th and F Streets – 5.3 seconds Logan Avenue and I-5 southbound off-ramp – 5.6 seconds 	PS	<p>16th Street/F Street: no feasible mitigation identified to improve operations.</p> <p>MM-C-TRA-1: Signalization of Logan Avenue/I-5 Southbound Off-Ramp. Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 22 percent of the improvement costs to install a traffic signal at the intersection of Logan Avenue and the southbound I-5 off-ramp. Installation of the traffic signal will require approval from the California Department of Transportation (Caltrans).</p> <p>MM-C-TRA-2: Signalization of Logan Avenue/I-5 Southbound On-Ramp. Prior to issuance of occupancy</p>	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	<ul style="list-style-type: none"> Logan Avenue and I-5 southbound on-ramp – 5.5 seconds 		permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 6 percent of the improvement costs to install a traffic signal at the intersection of Logan Avenue and the southbound I-5 on-ramp. Installation of the traffic signal will require approval from Caltrans.	
	<p>Impact-C-TRA-5: Failing Intersections in PM Peak Hour in Near-Term Cumulative Conditions: First Avenue/Beech Street; 14th Street/G Street; 15th Street/F Street; 16th Street/G Street; 16th Street/Island Avenue; 16th Street/K Street; 17th Street/G Street; 19th Street/J Street; Logan Avenue/I-5 Southbound On-Ramp. Operation of the proposed project would worsen existing delays at failing study area intersections during the PM peak hour under near-term conditions as follows.</p> <ul style="list-style-type: none"> First Avenue and Beech Street – 9 seconds 14th and G Streets – 4.4 seconds 15th and F Streets – 19.9 seconds 16th and G Streets – 4.3 seconds 16th Street and Island Avenue – 4.3 seconds 16th and K Streets – 15 seconds 17th and G Streets – by more than 2.0 seconds (delay exceeds calculation capacity of the traffic analysis software) 19th and J Streets – 20.6 seconds Logan Avenue and I-5 southbound on-ramp – by more than 2.0 	PS	<p>First Avenue/Beech Street: no feasible mitigation identified to improve operations.</p> <p>Implement MM-C-TRA-2, as described above.</p> <p>MM-C-TRA-3: New Travel Lane on G Street (3 Percent Fair-Share). Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 3 percent of the improvement costs to convert the on-street parking to a travel lane on G Street between 11th Avenue and 17th Street during the PM peak hour for impacts occurring at the intersection of 14th and G Streets, per the recommendations in the Downtown Community Plan. Conversion of on-street parking to a travel lane will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.</p> <p>MM-C-TRA-4: Signalization of the Intersection of 15th Street and F Street. Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 4 percent of the improvement costs to install a traffic signal at the intersection of 15th Street and F Street, per the recommendations on the Downtown Community</p>	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	seconds (delay exceeds calculation capacity of the traffic analysis software)		<p>Plan. Installation of the traffic signal will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.</p> <p>MM-C-TRA-5: New Travel Lane on G Street (2 Percent Fair Share). Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 2 percent of the improvement costs to convert the on-street parking to a travel lane on G Street between 11th Avenue and 17th Street during the PM peak hour for impacts occurring at the intersection of Park Boulevard and G Street, per the recommendations in the Downtown Community Plan. Conversion of on-street parking to a travel lane will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.</p> <p>MM-C-TRA-6: Signalization of the Intersection of 16th Street and Island Avenue. Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 18 percent of the improvement costs to install a traffic signal at the intersection of 16th Street and Island Avenue, per the recommendations on the Downtown Community Plan. Installation of the traffic signal will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego,</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.</p> <p>MM-C-TRA-7: Signalization of the Intersection of 16th Street and K Street. Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 9 percent of the improvement costs to install a traffic signal at the intersection of 16th Street and K Street, per the recommendations on the Downtown Community Plan. Installation of the traffic signal will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.</p> <p>MM-C-TRA-8: Signalization of 17th Street and G Street Intersection. Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 2 percent of the improvement costs to install a traffic signal at the intersection of 17th Street and G Street, per the recommendations on the Downtown Community Plan. Installation of the traffic signal will require approval from the City of San Diego.</p> <p>MM-C-TRA-9: Restriping Left-Turn Lane on J Street. Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 20 percent of the improvement costs to restripe the northbound left-turn lane along J Street at its intersection with 19th</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			Street into a northbound left-turn and through-shared lane, per the recommendations on the Downtown Community Plan. Restriping of J Street will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.	
	Impact-C-TRA-6: Failing Freeway Mainline Segment during AM Peak Hour under Near-Term Cumulative Conditions: I-5 Northbound, between Grape Street and First Avenue. Operation of the proposed project would worsen the existing V/C ratio along northbound I-5 between Grape Street and First Avenue, which currently operates at LOS E, by 0.012 during the AM peak period.	PS	Implement MM-TRA-5 , as described above.	SU
	Impact-C-TRA-7: Failing Roadway Segment – Harbor Drive between Laurel Street and Hawthorne Street (Future Year). Long-term operation of the proposed project would worsen conditions along Harbor Drive between Laurel Street and Hawthorne Street, which operates at an LOS F, by increasing the V/C ratio by more than 0.01.	PS	No feasible mitigation identified to improve operations.	SU
	Impact-C-TRA-8: Failing Intersections in AM Peak Hour in Future Year Cumulative Conditions: 16th Street/F Street; 15th Street/F Street; and 17th Street/G Street.	PS	16 th Street/F Street: no feasible mitigation identified to improve operations Implement MM-C-TRA-4 and MM-C-TRA-8 , as described above.	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	<p>Operation of the proposed project would worsen existing delays at failing study area intersections during the AM peak hour under Future Year conditions as follows.</p> <ul style="list-style-type: none"> 15th and F Streets – by more than 2.0 seconds (delay exceeds calculation capacity of the traffic analysis software) 16th and F Streets – 3.2 seconds 17th Street and G Street – by more than 2.0 seconds (delay exceeds calculation capacity of the traffic analysis software) 			
	<p>Impact-C-TRA-9: Failing Intersections in PM Peak Hour in Future Year Cumulative Conditions: Front Street and Broadway; First Avenue and Broadway; 11th Avenue and Broadway; 11th Avenue and G Street; 11th Avenue and Market Street; Park Boulevard and G Street; 13th Street and G Street; 14th Street and G Street; 15th Street and F Street; 16th Street and G Street; 16th Street and K Street; Imperial Avenue and 16th Street; and 17th and G Streets. Operation of the proposed project would worsen existing delays at failing study area intersections during the PM peak hour under Future Year conditions as follows.</p> <ul style="list-style-type: none"> Front Street and Broadway – 4.1 seconds 	PS	<p>Front Street/Broadway: no feasible mitigation identified to improve operations</p> <p>First Avenue/Broadway: no feasible mitigation identified to improve operations</p> <p>11th Avenue/Broadway: no feasible mitigation identified to improve operations</p> <p>11th Avenue/Market Street: no feasible mitigation identified to improve operations</p> <p>16th Street and K Street: no feasible mitigation identified to improve operations</p> <p>Implement MM-C-TRA-4, MM-C-TRA-5, MM-C-TRA-7, and MM-C-TRA-8, as described above.</p> <p>MM-C-TRA-10: New Travel Lane on G Street (1 Percent Fair Share). Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 1 percent of the improvement costs to convert the on-street parking to a travel lane on G Street between 11th</p>	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	<ul style="list-style-type: none"> • First Avenue and Broadway – 2.2 seconds • 11th Avenue and Broadway – 4.4 seconds • 11th Avenue and G Street – 5.0 seconds • 11th Avenue and Market Street – 11.4 seconds • Park Boulevard and G Street – 4.0 seconds • 13th Street and G Street – 4.4 seconds • 14th Street and G Street – 4.6 seconds • 15th Street and F Street – 51.8 seconds • 16th and G Street – 3.6 seconds • 16th Street and K Street – 15.7 seconds • Imperial Avenue and 16th Street – 46.2 seconds • 17th and G Streets – more than 2.0 seconds (delay exceeds calculation capacity of the traffic analysis software) 		<p>Avenue and 17th Street during the PM peak hour for impacts occurring at the intersection of 11th Avenue and G Streets, per the recommendations in the Downtown Community Plan. Conversion of on-street parking to a travel lane will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.</p> <p>MM-C-TRA-11: New Travel Lane on G Street (2 Percent Fair Share). Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 2 percent of the improvement costs to convert the on-street parking to a travel lane on G Street between 11th Avenue and 17th Street during the PM peak hour for impacts occurring at the intersection of Park Boulevard and G Street, per the recommendations in the Downtown Community Plan. Conversion of on-street parking to a travel lane will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.</p> <p>MM-C-TRA-12: New Travel Lane on G Street (1 Percent Fair Share). Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 1 percent of the improvement costs to convert the on-street parking to a travel lane on G Street between 11th Avenue and 17th Street during the PM peak hour for impacts occurring at the intersection of Park Boulevard</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			<p>and G Street, per the recommendations in the Downtown Community Plan. Conversion of on-street parking to a travel lane will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.</p> <p>MM-C-TRA-13: New Travel Lane on G Street (3 Percent Fair Share). Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 3 percent of the improvement costs to convert the on-street parking to a travel lane on G Street between 11th Avenue and 17th Street during the PM peak hour for impacts occurring at the intersection of Park Boulevard and G Street, per the recommendations in the Downtown Community Plan. Conversion of on-street parking to a travel lane will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.</p> <p>MM-C-TRA-14: Restripe Northbound and Southbound Approaches to Imperial and 16th Street. Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 18 percent of the improvement costs to restripe the northbound and southbound approaches to the intersection of Imperial Avenue and 16th Street to include an exclusive right-turn lane in each direction. Restriping of the intersection will require approval from the City of San</p>	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.	
	<p>Impact-C-TRA-10: Failing Freeway Mainline Segment during AM Peak Hour under Future Year Cumulative Conditions: I-5 Northbound, between Grape Street and First Avenue, First Avenue and SR-163, B Street and SR-94, and SR-94 and Imperial Avenue; and during the PM Peak Hour I-5 Southbound between First Avenue and SR-163 and B Street and SR-94. Operation of the proposed project would cause a significant change in the V/C ratio (i.e., add more than 0.010 for LOS E or 0.005 for LOS F) along the following northbound I-5 segments that are projected to operate at LOS F during the AM peak period.</p> <ul style="list-style-type: none"> Between Grape Street and First Avenue – 0.011 Between First Avenue and SR-163 – 0.012 Between B Street and SR-94 – 0.012 Between SR-94 and Imperial Avenue – 0.010 <p>In addition, the proposed project would cause a significant change in the V/C ratio along the following</p>	PS	Implement MM-C-TRA-5 , as described above.	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	southbound I-5 segments that are currently operating at LOS F. <ul style="list-style-type: none"> Between First Avenue and SR-163 – 0.008 Between B Street and SR-94 – 0.010 			
	Impact-C-TRA-11: Cumulatively Considerable Contribution to a Cumulative Parking Impact. Reasonably foreseeable future projects are expected to contribute to a parking deficit in the downtown area. The proposed project's contribution to the cumulative parking impact from past, present, and reasonably foreseeable future projects would be cumulatively considerable and significant.	PS	Implement MM-C-TRA-8 , as described above.	SU
4.13 Tribal Cultural Resources				
Project Impacts				
Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource, Defined in Public Resources Code Section 21074	Implementation of the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074.	LS	No mitigation is required.	LS
Cumulative Impacts				
The proposed project's incremental contribution to cumulative tribal cultural resources impacts would not be cumulatively considerable.				

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Section 4.14 Utilities and Energy Use				
Project Impacts				
Exceed Wastewater Treatment Requirements of the RWQCB; Inadequate Wastewater Treatment Capacity; or Result in the Construction of New Wastewater Treatment Facilities or Expansion of Existing Facilities	Impact-UTIL-1: Construction of Utility Improvements Would Contribute to Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, and Impact-HAZ-1. As analyzed in Sections 4.4, <i>Cultural Resources</i> , 4.5, <i>Geology and Soils</i> , and 4.7, <i>Hazards and Hazardous Materials</i> , the proposed project would result in significant impacts as identified by Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, and Impact-HAZ-1. Construction of the various utility improvements would be a component of the proposed project that would contribute to these significant impacts. As such, impacts from the construction of the proposed utility improvements would be considered significant.	PS	Implement MM-CUL-1 and MM-CUL-2 as described above under <i>Cultural Resources</i> ; MM-GEO-1 as described above under <i>Geology and Soils</i> ; and MM-HAZ-1 through MM-HAZ-4 as described above under <i>Hazards and Hazardous Materials</i> .	LS
	Impact-UTIL-2: Insufficient Sewer Capacity to Convey Project-Generated Wastewater. The Ballpark Village project has a performance bond with the City to upsize the existing West Harbor Drive trunk sewer main from 15 inches to 30 inches, and the upsizing improvements are anticipated to be completed prior to construction of the proposed project. However, in the event that upsizing of the existing 15-inch trunk sewer main does not occur, there would be insufficient capacity to	PS	MM-UTIL-1: Upsize the Existing West Harbor Drive Trunk Sewer Main to Accommodate Project-Generated Wastewater. Prior to occupancy and operation of the proposed market-rate hotel tower or the lower-cost visitor-serving hotel, whichever is first, the project proponent shall upsize the existing 15-inch trunk sewer main located at the intersection of West Harbor Drive and Park Boulevard to a 30-inch trunk sewer main. The financing of the upsizing may include a cost-sharing agreement with one or more parties, or any other alternative means of financing to ensure that the upsizing occurs. Alternatively, the project proponent may wait until the upgrades are completed by another entity to operate the market-rate hotel	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
	accommodate project-generated wastewater. Therefore, due to the uncertainty surrounding the implementation of the 15-inch trunk sewer upsizing to 30 inches, which is necessary to convey project-generated wastewater, potential impacts are considered to be significant.		tower or the lower-cost visitor-serving hotel, whichever is ready for operation first. At no point shall the project proponent operate one or both prior to the trunk sewer main being upsized.	
Result in Insufficient Water Supplies; or Result in the Construction of New Water Treatment Facilities or Expansion of Existing Facilities	Implementation of the proposed project would not result in insufficient water supplies from existing entitlements and resources, resulting in the need for new or expanded entitlements, nor would it require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LS	No mitigation is required.	LS
Require the Construction of New Stormwater Drainage Facilities or Expansion of Existing Facilities	Impact-UTIL-1 , as described above.	PS	Implement MM-CUL-1 and MM-CUL-2 as described above under <i>Cultural Resources</i> ; MM-GEO-1 as described above under <i>Geology and Soils</i> ; and MM-HAZ-1 through MM-HAZ-4 as described above under <i>Hazards and Hazardous Materials</i> .	LS
Be Served by a Landfill with Sufficient Permitted Capacity to Accommodate the Project's	Implementation of the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, and would comply with federal, state, and local statutes and regulations related to solid waste.	LS	No mitigation is required.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Solid Waste Disposal Needs; and Comply with Federal, State, and Local Statutes and Regulations Related to Solid Waste				
Result in the Wasteful, Inefficient, or Unnecessary Use of Energy; and Require or Result in the Construction of New Energy System Infrastructure or the Expansion of Existing Infrastructure	Impact-UTIL-1 , as described above.	PS	Implement MM-CUL-1 and MM-CUL-2 as described above under <i>Cultural Resources</i> ; MM-GEO-1 as described above under <i>Geology and Soils</i> ; and MM-HAZ-1 through MM-HAZ-4 as described above under <i>Hazards and Hazardous Materials</i> .	LS
Cumulative Impacts				
Be Served by a Landfill with Sufficient Permitted Capacity to Accommodate the Project's Solid Waste Disposal Needs; and Comply	Impact-C-UTIL-1: The Proposed Project Would Generate Solid Waste that Would Exceed the City's Threshold. Operation of the proposed project would generate an annual amount of solid waste in excess of 60 tons, which would exceed the City's cumulative solid waste threshold.	PS	MM-C-UTIL-1: Prepare a Waste Management Plan. Prior to issuance of the construction permits, the project proponent shall prepare a waste management plan and submit the plan to the City's Environmental Services Department for approval. The plan shall address the demolition, construction, and operation phases of the proposed project as applicable, and shall include the following.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
with Federal, State, and Local Statutes and Regulations Related to Solid Waste			<ol style="list-style-type: none"> 1. A timeline for each of the main phases of the proposed plan and near-term improvements (construction and operation). 2. Tons of waste anticipated to be generated (construction and operation). 3. Type of waste to be generated (construction and operation). 4. Description of how the proposed project will reduce the generation of construction and demolition (C&D) debris. 5. Description of how C&D material will be reused on site. 6. The name and location of recycling, reuse, and landfill facilities where recyclables and waste will be taken if not reused on site. 7. Description of how the C&D waste will be separated if a mixed C&D facility is not used for recycling. 8. Description of how the waste reduction and recycling goals will be communicated to subcontractors. 9. Description of how a “buy recycled” program for green construction products will be incorporated into the proposed project. 10. Description of any ISO³ or other certification, if any. 	
Notes: PS = Potentially significant; LS = Less than significant; NI = No Impact; SU = Significant and Unavoidable				

³ ISO certification means there has been a commitment to reduce ongoing waste.

1.1 Project Overview

Fifth Avenue Landing, LLC (project proponent) is proposing a commercial and recreational bayside redevelopment (project or proposed project) on approximately 18 acres (project site). The proposed project includes landside (5 acres) and waterside (13 acres) development components, as well as a Port Master Plan Amendment (PMPA) for Planning District 3, Centre City Embarcadero, to change the allowable land and water uses on the project site. Future approvals of a Coastal Development Permit (CDP), lease, and other minor entitlements to implement the proposed project are also required.

The landside development components include a hotel, lower-cost visitor-serving hotel, a parking structure, visitor-serving retail establishments, a new water transportation center (WTC) that would operate the existing water transportation ferry and water taxi service, and several public spaces and amenities, including an optional connecting pedestrian bridge from the hotel public access plaza to the San Diego Convention Center (SDCC), park/plazas, and maintenance of the existing Embarcadero Promenade. The waterside development components include a marina expansion with additional slips to allow for both small and larger vessels to dock at the marina and the continued operation of a water transportation ferry and water taxi service. The proposed project also includes offsite infrastructure improvements that are needed to adequately serve the proposed project.

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.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.). This Draft EIR has also been prepared in compliance with the San Diego Unified Port District (District) Guidelines for Compliance with CEQA (Resolution 97-191).

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. 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 pursuant to Sections 15090–15093 of the State CEQA Guidelines prior to project approval. The Board is also responsible for approval of the PMPA, CDP, and lease. If the Board approves the PMPA, the Coastal Commission will then consider whether to certify the PMPA. The Coastal Commission, 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 Coastal Commission, the Board would consider approval of an appealable CDP and lease, which would allow the District to issue the CDP and give the project proponent property rights, respectively, allowing the proposed project to proceed to construction. In addition, if 110 parking spaces become available in the SDCC parking garage (there currently are no unencumbered parking spaces in that garage) and the Board chooses to allow the project proponent to use those parking spaces, the Board would need to approve a potential amendment to an existing Convention Center Management Agreement (District Document

No. 37944; Management Agreement) for the SDCC by and between the City of San Diego (City) and the District for the proposed use of 110 offsite parking spaces within the SDCC garage.

The City would consider the proposed project as it relates to the issuance of ministerial permits, such as building permits for the construction of structures and grading permits, and perhaps a future amendment to an existing Management Agreement with the District for the proposed use of 110 offsite parking spaces within the SDCC garage. In addition, the proposed optional connecting bridge from the hotel public access plaza to the SDCC would require potential concurrence of the City and an amendment to the existing Management Agreement (District Document No. 37944) prior to implementation. Because an amendment to the Management Agreement would be a discretionary action, the City is considered a responsible agency under CEQA.

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
Adoption of Mitigation Monitoring and Reporting Program	District
Adoption of Findings of Fact	District
Adoption of Statement of Overriding Considerations	District
Approval and adoption of the PMPA	District
Certification of, and final action on, the PMPA	Coastal Commission
Authorization for issuance of a CDP	District
Approval of new lease agreements	District
Concept approval of the Fifth Avenue Landing project	District
Agreement to allow for the optional connecting bridge to the SDCC	District, City of San Diego
Issuance of Resource Agency Permits	U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Wildlife

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 August 18, 2016, the District posted a Notice of Preparation (NOP) with the County Clerk in accordance with Section 15082 of the State CEQA

Guidelines. The 30-day public review period for the NOP began on August 18, 2016, and ended on September 16, 2016. 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 September 7, 2016, at the District's Administration Building at 3165 Pacific Highway, San Diego, CA, 92101.

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
- Geology and Soils
- Greenhouse Gas Emissions and Climate Change
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise and Vibration
- Public Services and Recreation
- Transportation, Circulation, and Parking
- Tribal Cultural Resources
- Utilities and Energy Use

There are no agricultural, forestry, or mineral resources on site; therefore, the proposed project would not have an adverse effect on any of these resources. In addition, the proposed project would not have a significant adverse effect on population or housing. Chapter 6, *Additional Consequences of Project Implementation*, includes a brief analysis as to why impacts on agricultural and forestry resources, mineral resources, and population 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
Federal		
National Oceanic and Atmospheric Association, Eric Chavez	Requests consultation with the National Oceanic and Atmospheric Association regarding the increased overwater coverage and applicable avoidance, minimization, and offsetting measures.	Section 4.3, <i>Biological Resources</i>
State		
State of California, Governor's Office of Planning and Research, State Clearinghouse and Planning Unit (SCH), August 18, 2016	Provides SCH# 2016081053 and notes which state agencies received a copy of the NOP	N/A
California State Lands Commission, Reid Boggiano, Public Land Management Specialist, August 23, 2016	Requests copies of the Draft and Final EIR.	N/A
State of California Natural Resources Agency, Department of Fish and Wildlife, Gail K. Sevens, Environmental Program Manager, South Coast Region, September 16, 2016	Clearly identify marine species and habitats currently on the project site and alternative sites. The potential impacts on these species and habitats should be analyzed, and potential mitigation measures should be identified to reduce predicted impacts on protected and sensitive species. The project should avoid impacts and minimize potential unavoidable impacts. The loss of sensitive habitat will require appropriate compensation.	Section 4.3, <i>Biological Resources</i> Appendix E-1, <i>Marine Taxonomic Services, Marine Biological Survey</i>
	Surveys should be conducted at the appropriate time of year.	Section 4.3, <i>Biological Resources</i>
	Conduct a breakwater habitat analysis and a habitat shading impacts analysis and include mitigation measures and an analysis of alternatives.	Section 4.3, <i>Biological Resources</i>
	Analyze potential impacts on eelgrass and <i>Caulerpa taxifolia</i> . Surveys and any necessary mitigation should be done in accordance with the California Eelgrass Mitigation Policy.	Section 4.3, <i>Biological Resources</i>
	The Draft EIR should include an analysis of impacts associated with pile driving. The Department recommends the use of non-toxic piles and soft start pile driving conservation measures.	Section 4.3, <i>Biological Resources</i>

Commenter	Environmental Topic(s)	Location Where Addressed in this Draft EIR
	A vibratory hammer should be used to install piles, when possible. If impact or jetting hammers are required, the pile should be driven as deep as possible with the vibratory hammer before use of the other methods.	Section 4.3, <i>Biological Resources</i>
	Silt curtains or other appropriate methods should be used to avoid or minimize siltation, re-suspended contaminants, and turbidity plumes from moving off site.	Section 4.3, <i>Biological Resources</i>
	Include measures that avoid impacts on the fully protected California least tern. Pile driving should occur outside the California least tern breeding and nesting season.	Section 4.3, <i>Biological Resources</i>
	Use non-reflective glass and other avian-friendly designs to avoid potential avian collisions.	Section 4.3, <i>Biological Resources</i>
	Use avian-friendly lighting fixture designs and lighting standards.	Section 4.3, <i>Biological Resources</i>
	Include a complete discussion of the purpose and need for, and description of, the proposed project, including all staging areas and access route to the construction and staging areas.	Section 3, <i>Project Description</i>
	Include a range of feasible alternatives that avoid or minimize potential impacts on biological resources.	Chapter 7, <i>Alternatives to the Proposed Project</i>
	Include a discussion of potential adverse impacts on biological resources from lighting, noise, and human activity.	Section 4.3, <i>Biological Resources</i>
	Include a discussion regarding indirect project impacts on biological resources.	Section 4.3, <i>Biological Resources</i>
	Analyze conflicts with the zoning of areas for development projects or other uses that are nearby or adjacent to natural areas that may inadvertently contribute to wildlife-human interactions.	Section 4.3, <i>Biological Resources</i> Section 4.9, <i>Land Use and Planning</i>
	Analyze cumulative effects from past, present, and future projects.	Chapter 5, <i>Cumulative Impacts</i>
California Department of Toxic Substances Control, Kelly Laliberte, September 6, 2016	Identify the current or historic uses as the project site that may have resulted in a release of hazardous wastes/substances and discuss whether a Phase I Environmental Site Assessment might be required.	Section 4.7, <i>Hazards and Hazardous Materials</i>

Commenter	Environmental Topic(s)	Location Where Addressed in this Draft EIR
Native American Heritage Commission	Determine whether there are historical resources within the area of project effect (APE), and if the project will cause a substantial adverse change in the significance of a historical resource. Comply with AB 52 and SB 18, as appropriate. Adequately assess 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, <i>Cultural Resources</i> Section 4.13, <i>Tribal Cultural Resources</i>
Regional		
San Diego Association of Governments (SANDAG), Susan Baldwin, Senior Regional Planner, September 15, 2016	Include public transportation routes and services in plan documents and facilitate access to them.	Chapter 3, <i>Project Description</i> Section 4.12, <i>Transportation, Circulation, and Parking</i> Appendix K-1, <i>Transportation Impact Analysis</i>
	Integrate additional Transportation Demand Management strategies, which could serve as mitigation measures.	Section 4.12, <i>Transportation, Circulation, and Parking</i> Appendix K-1, <i>Transportation Impact Analysis</i>
	Consider a number of additional SANDAG resources as provided in the letter.	Section 4.12, <i>Transportation, Circulation, and Parking</i> Appendix K-1, <i>Transportation Impact Analysis</i>
Organizations		
San Diego County Archaeological Society, Environmental Review Committee, James W Royale, Jr., Chairperson, September 1, 2016	Request copies of the Draft EIR and the Archaeological technical report when it becomes available for public review.	N/A
San Diego Convention Center Corporation, Clifford Rippetoe, CEO, September 13, 2016	Conduct a transportation study to evaluate impacts on the successful delivery of freight and equipment for trade shows, etc. at SDCC. Convention Way is the only ingress and egress for the docks that serve the SDCC. Impacts on the roadway could decrease the more than 150 events held at SDCC annually.	Section 4.12, <i>Transportation, Circulation, and Parking</i> Appendix K-1, <i>Transportation Impact Analysis</i>

Commenter	Environmental Topic(s)	Location Where Addressed in this Draft EIR
	Limiting the ingress/egress could decrease the net Return on Investment from direct activity at SDCC.	Section 4.12, <i>Transportation, Circulation, and Parking</i> Appendix K-1, <i>Transportation Impact Analysis</i>
	Conduct a study on pedestrian safety and requests a conversation on the design and safety elements of the proposed optional connecting pedestrian bridge.	Chapter 3, <i>Project Description</i> and Section 4.12, <i>Transportation, Circulation, and Parking</i> Appendix K-1, <i>Transportation Impact Analysis</i>
	Analyze the project's effect on a future solar energy installation at SDCC. In the absence of a study, SDCC requests relief from the requirement for the solar array, prior to approval of this project.	N/A
	The SDCC recommends that a joint project be considered for this property that addresses all concerns. Recommend a contiguous SDCC expansion with a hotel built above it.	Chapter 7, <i>Alternatives to the Proposed Project</i>
Individuals		
Mark G. Stephens, AICP	Accurately reflect current circumstances, applicable plans, and adverse effects related to the public access components and existing views in the Draft EIR. Include analysis of visual impacts on existing viewshed and the historic Old Rowing Club.	Section 4.1, <i>Aesthetics and Visual Resources</i> and Section 4.4, <i>Cultural Resources</i>
	Assess the project impacts in context of the California Coastal Act policies and the increasingly intensively developing onshore lease space.	Section 4.9, <i>Land Use and Planning</i>

Commenter	Environmental Topic(s)	Location Where Addressed in this Draft EIR
	Assess project impacts on pending or ongoing projects in the general vicinity of the project site, including Navy Broadway Complex, the District's Central Embarcadero Development Project (Seaport Village and surrounding area), Phase III Convention Center Expansion (while not currently progressing, it is still an approved project) and second Hilton San Diego Bayfront tower, Tenth Avenue Marine Terminal redevelopment projects, the San Diego Chargers' proposed Stadium and Convention facilities in East Village, Convention Center major maintenance repairs, a San Diego Symphony permanent facility at South Embarcadero Park (displacing more public park green space), Ballpark Village, Cisterra Development Project, and many other projects, including numerous additional Downtown hotels.	Chapter 5, <i>Cumulative Impacts</i>
	Evaluate alternatives that address: substantially reducing building heights, footprints, and square footages; alternative locations, such as private land Downtown (which would be far more appropriate for a major high-rise structure), or in the Chula Vista bayfront area (which has much more developable land available, reducing the need for such a tall structure, and the City of Chula Vista and the District have been trying to attract a significant hotel project there for many years); and alternative uses of this proposed site that would complement rather than clash with the surrounding community.	Chapter 7, <i>Alternatives to the Proposed Project</i>

1.5 Organization of the Draft EIR

The content and format of this Draft EIR are designed to meet the requirements of CEQA and 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
<i>Summary</i>	Includes a brief summary of the proposed 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 <i>Introduction</i>	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 <i>Environmental Setting</i>	Describes the overall existing physical conditions in the vicinity of the proposed project when the analysis was initiated. In addition, the specific existing conditions for each resource area are described in the applicable resource section in Chapter 4, <i>Environmental Analysis</i> (State CEQA Guidelines Section 15125).
Chapter 3 <i>Project Description</i>	Contains both a map of the precise location and boundaries of the proposed project and its location relative to the region, lists the proposed project's central objectives and underlying purpose, and provides a detailed description of the proposed project's characteristics (State CEQA Guidelines Section 15124(a), (b), and (c)).
Chapter 4 <i>Environmental Analysis</i>	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 proposed project, and lists feasible mitigation measures that would eliminate or reduce the identified significant impacts (State CEQA Guidelines Sections 15125–15126.4).
Chapter 5 <i>Cumulative Impacts</i>	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 proposed 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 <i>Additional Consequences of Project Implementation</i>	Discusses the way the proposed project could foster economic or population growth, either directly or indirectly, in the surrounding environment; describes the significant irreversible changes associated with the proposed 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).

Draft EIR Chapter	Contents
Chapter 7 <i>Alternatives to the Proposed Project</i>	Describes a reasonable range of alternatives to the proposed project, including the No-Project Alternative; compares and contrasts the significant environmental impacts of alternatives to the proposed project; and identifies the environmentally superior alternative (State CEQA Guidelines Section 15126.6).
Chapter 8 <i>List of Preparers and Agencies Consulted</i>	Lists the individuals and agencies involved in preparing this Draft EIR (State CEQA Guidelines Section 15129).
Chapter 9 <i>References</i>	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.

2.1 Introduction

This chapter 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 was published.¹ Resource-specific existing conditions are provided within each individual resource section of Chapter 4, *Environmental Analysis*. Chapter 4 also describes consistencies with applicable plans.²

2.2 Background Setting

2.2.1 District

The mission of the San Diego Unified Port District (District) is to protect, promote, and facilitate tidelands resources by providing economic vitality and community benefit through a balanced approach to maritime industry, tourism, water and land recreation, environmental stewardship, and public safety. The District was created with the San Diego Unified Port District Act (Port Act), adopted by the California State Legislature in 1962, as amended. The Port Act was enacted consistent with the Public Trust Doctrine and states that tidelands and submerged lands (collectively, Tidelands) are to be used only for statewide public purposes. To this end, the District is charged with management of the Tidelands and diverse waterfront uses along San Diego Bay (Bay) that promote commerce, navigation, fisheries, recreation, and conservation on the granted Tidelands. The project site is on land that is within the District's jurisdiction and the District has regulatory duties and proprietary responsibilities over the site. The land has been leased from the District to Fifth Avenue Landing, LLC, the project proponent, since 1984.

2.2.2 Fifth Avenue Landing

The project site, commonly known as Fifth Avenue Landing, is currently a superyacht marina and transient berthing facility located in downtown San Diego, adjacent to the San Diego Convention Center (SDCC). The area around Fifth Avenue Landing has been developed for more than a century. In 1900, the San Diego Rowing Club (SDRC) constructed a clubhouse on the Pacific Coast Steamship

¹ State CEQA Guidelines Section 15125 states that an EIR must include “a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will *normally* constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to an understanding of the significant effects of the proposed project and its alternatives” (emphasis added).

² For example, Section 4.2, *Air Quality and Health Risk*, contains a project consistency analysis with the applicable air quality plans.

Company wharfs, which became a leading focal point of recreational activity in the city of San Diego (City). By 1906, the San Diego Lumber Company and the Pacific Coast Steamship Company had built substantial wharfs into the bay that extended into the project area. The City constructed and operated a garbage incinerator sometime between 1906 and 1921 on land formed of trash deposits and dredged fill material, which gradually expanded the shoreline nearer to the project site (District 2012; Seymour 2013).

From 1984 to 2001, the site was used for marine construction and dredging operations by R.E. Staite Engineering. When the SDCC Phase II Expansion was completed in September 2001, R.E. Staite Engineering vacated the property and all associated industrial equipment was removed (SDCC 2016). In 2010, the original leasehold held by Fifth Avenue Landing, LLC was split into two premises and the District entered into two leases—the Amended, Restated and Combined (ARC) Lease with the SDCC Corporation for the SDCC Phase III Expansion site and the Water Transportation Center (WTC) Lease with Fifth Avenue Landing, LLC for the continued operation of a WTC and marina. The leasehold term of the ARC Lease is consistent with the original 1984 Fifth Avenue Landing lease and expires on June 30, 2024. The WTC Lease commenced on May 7, 2010, for a period of 20 years, with up to two additional terms of 5 years, for a total maximum term of 30 years, and includes both landside and waterside facilities operated by Fifth Avenue Landing, LLC on the leasehold premises adjacent to the ARC Lease premises. In 2007, Fifth Avenue Landing proposed a hotel project known as the Spinnaker Hotel, which was a 250-room hotel that was identified in the certified Port Master Plan (PMP) at that time. The Spinnaker Hotel did not go forward and was not built.

In 2015, the SDCC Corporation transferred the ARC Lease to Fifth Avenue Landing, LLC. Paragraph 50(a) of the ARC Lease provides Fifth Avenue Landing, LLC will submit an application to the District for a PMP Amendment (PMPA) to allow for a hotel with greater than 400 rooms, banquet and conference rooms, ballroom, restaurants, cocktail lounges, and retail shops. The ARC Lease also specifies that the proposal must include parking in accordance with the District’s published parking standards, a public park/plaza of approximately 1 acre, a public promenade along the waterfront, pedestrian bridge(s), and a public observation terrace, and must also interface with the existing WTC (ARC Lease, Para 50(a)). The proposed hotel must also meet or exceed the service quality of standard of the Hilton San Diego Bayfront, Marriott Marquis San Diego Hotel & Marina, and Manchester Grand Hyatt hotels (ARC Lease, Para 50(a)).

The ARC Lease premises/project site are currently being used for surface parking, staging, and special events associated with SDCC. The marina at Fifth Avenue Landing currently allows docking for superyachts up to 300 feet, and each berth has blackwater pumpout capabilities and shore power connection.

2.3 Existing Setting

2.3.1 Location

The proposed project would be located in downtown San Diego within the District’s jurisdiction on an 18-acre project site, which consists of 5 landside acres south of Harbor Drive and the SDCC and west of the existing Hilton San Diego Bayfront Hotel and 13 waterside acres of San Diego Bay east of Embarcadero Marina Park South. The waterside portion of the project site is approximately 350 feet and the landside approximately 1,000 feet from the 96-acre Tenth Avenue Marine Terminal, an

omni-terminal that handles refrigerated containers, dry bulk, liquid bulk, and general cargo immediately southeast of the Hilton San Diego Bayfront Hotel. The Bay is southwest of the project site, and the City of Coronado is across the Bay approximately 0.6 mile to the southwest. The San Diego International Airport (SDIA) is approximately 2 miles to the northwest. Regional vehicle access to the project site is available from Interstate (I-) 5 and State Route (SR-) 94 to the east and SR-163 to the north. Several freeway ramps are within 1 mile of the project site. The site is also within proximity to rail, with the closest trolley stop, Gaslamp Quarter Station, approximately 900 feet across Harbor Drive to the north and Santa Fe Depot less than 1 mile to the northwest. Figure 2-1 shows the regional location and access to the project site.

2.3.1.1 Project Boundaries

The project site is situated immediately south and southwest of the SDCC. Its northeasterly boundary extends to Convention Way, which is adjacent to the existing SDCC; its southeasterly boundary extends to the existing park, which is part of the Hilton San Diego Bayfront Hotel premises; its southwesterly boundary extends into the Bay (for the marina); and its northern boundary extends to Marina Park Way and Convention Way. The project site includes the existing marina, which is currently used by marina customers and their recreational vessels, as well as the existing water transportation ferry service. Figure 2-2 provides the precise location and boundaries of the project site.

2.3.2 Existing Land and Water Use Designations

The project site occupies land and water that is under the jurisdiction of the District within the City. The District's PMP governs the uses on Tidelands that the State Legislature has granted to the District, as trustee, and for which the District has regulatory duties and proprietary responsibilities. The PMP establishes ten planning districts covering approximately 5,500 acres of District jurisdiction. The project site is in the Centre City Embarcadero Planning District (Planning District 3), within the Marina Zone and Convention Way Basin Subareas of the PMP (Subareas 35 and 36, respectively). The planning district encompasses approximately 434 acres and contains a balanced distribution of commercial, industrial, public recreation, and public facility uses. The landside portion of the project site is currently designated in the PMP for commercial recreation, park/plaza, and promenade uses, while the waterside portion of the site is designated for recreational boat berthing, specialized berthing, and ship navigation corridor, as shown on Figure 2-3.

Project staging and construction laydown would be provided at the project site. Construction parking would occur off site at Tailgate Park located at 1299 Imperial Avenue and/or the Economy Lot at the San Diego International Airport, located at 3365 Admiral Borland Way. Shuttles would be used to transport the construction workers to the project site. All proposed staging areas are paved or heavily disturbed with no existing vegetation.

2.3.3 Previous Site Entitlements/Approvals

The project site is partially located within the boundaries of a previously approved PMPA for the SDCC Phase III Expansion. As specified in the PMPA, the SDCC Phase III Expansion and the area that comprises its boundaries include the following features.

- Up to 400,000 square feet of exhibit area, meeting rooms, and ballrooms.
- Up to 560,000 square feet of support spaces.

- Up to approximately 15,000 square feet of visitor-serving uses.
- Infrastructure upgrades.
- Landscape improvements.
- Realignment of Convention Way (bayward).
- A 5-acre public rooftop park/plaza on top of the expansion.

The EIR was certified and the PMPA was approved by the District Board in September 2012. The PMPA was certified by the Coastal Commission in October 2013. As mentioned above, in 2015, the SDCC Corporation transferred the ARC Lease to Fifth Avenue Landing, LLC. In January 2016, Fifth Avenue Landing submitted its application to the District for the proposed project. The FAL project was presented to the Board for preliminary project review on March 8, 2016. At that time, the Board authorized staff to commence the environmental review process for the proposed project.

2.4 Surrounding Conditions

The project site is in an area that supports a mixture of commercial, industrial, recreational, residential, civic, and marine-related land uses. Surrounding land and water use designations include commercial recreation, recreational boat berthing, industrial specialized berthing, ship navigation corridor, marine terminal, marine-related industrial, terminal berthing, fueling dock, and park/plaza.

Land uses north of the project site include commercial uses, transit, roadways, and a few high-rise residential uses across Harbor Drive (i.e., two towers of the Harbor Club Condominiums). Convention Way establishes the northeasterly boundary of the site, with the SDCC, Harbor Drive, and the Metropolitan Transit System's San Diego Trolley tracks and BNSF tracks beyond Convention Way to the north and northeast. Other uses northwest of the project site include the Marriott Marquis San Diego Marina.

Land uses to the south and southeast of the project site include commercial and industrial uses. The 30-story, 1,190-room existing Hilton San Diego Bayfront Hotel sits adjacent to the southeastern boundary of the site. The Tenth Avenue Marine Terminal, an operational maritime omni-terminal, abuts the southeastern boundary of the existing Hilton San Diego Bayfront Hotel, approximately 350 south of the proposed marina expansion (Phase 2). The marine terminal covers a total of 96 acres.

The Bay borders the project site to the west and southwest. Beyond the ferry landing and docking area is Joe's Crab Shack, a waterfront seafood restaurant utilizing the San Diego Rowing Club building—which is listed on the National Register of Historic Places. Adjacent to the restaurant is the District's Embarcadero Marina Park South, which offers both active and passive recreational opportunities and also serves as the venue of the San Diego Symphony's Summer Pops concert series.

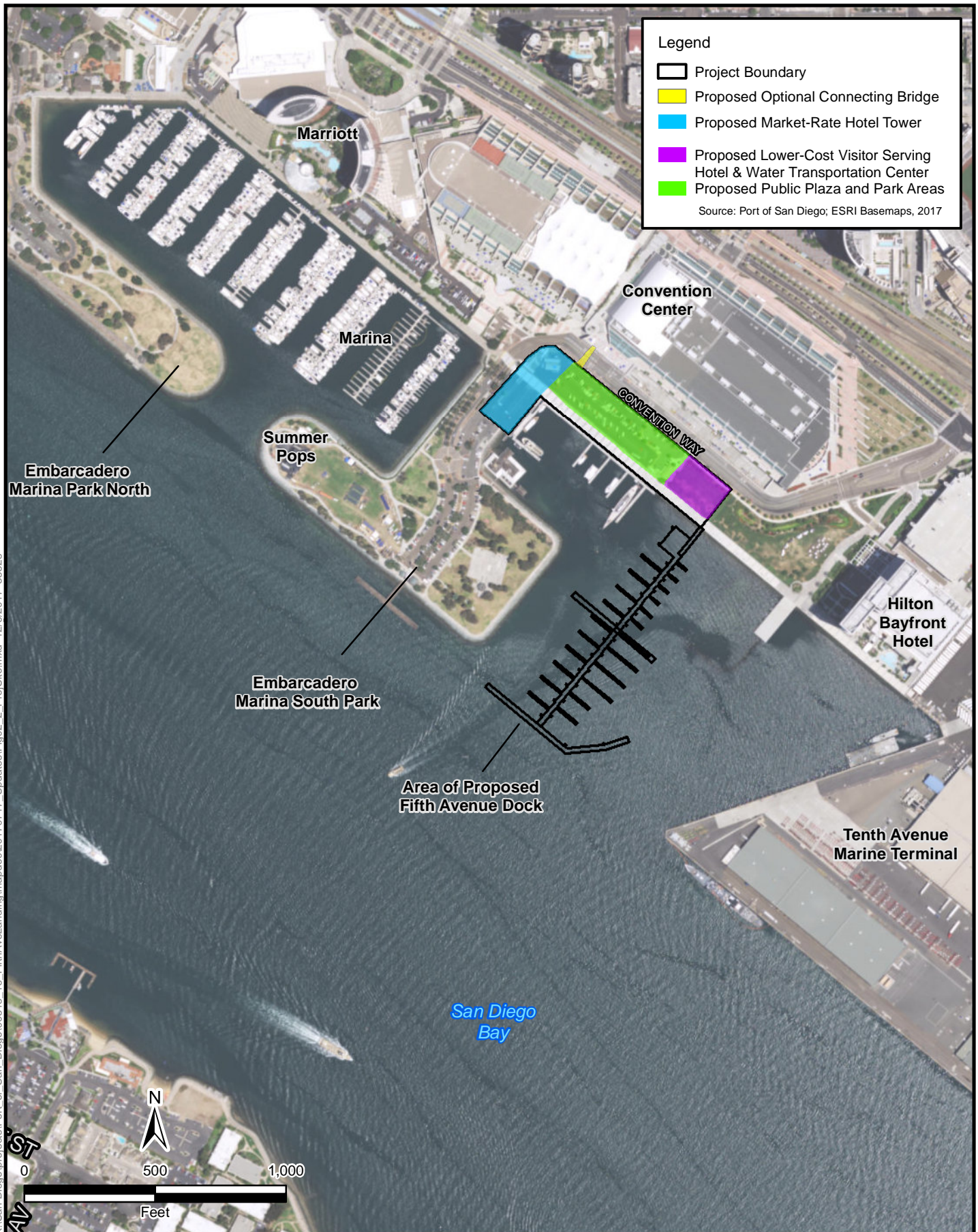
The Embarcadero Promenade, a public waterfront promenade, abuts the Bay southwest of the project site, and a public access way (the Skywalk) that crosses over the SDCC connects Harbor Drive and the Embarcadero Promenade. Additionally, the portion of San Diego Bay adjacent to the western portion of the site supports the Marriott Marquis San Diego Marina, an approximately 450-slip public marina used for yacht and sailboat docking. Embarcadero Marina Park North also lies west of the project site, just beyond the Marriott Marquis San Diego Marina.

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Figure 2-1
Regional Location
Fifth Avenue Landing Project

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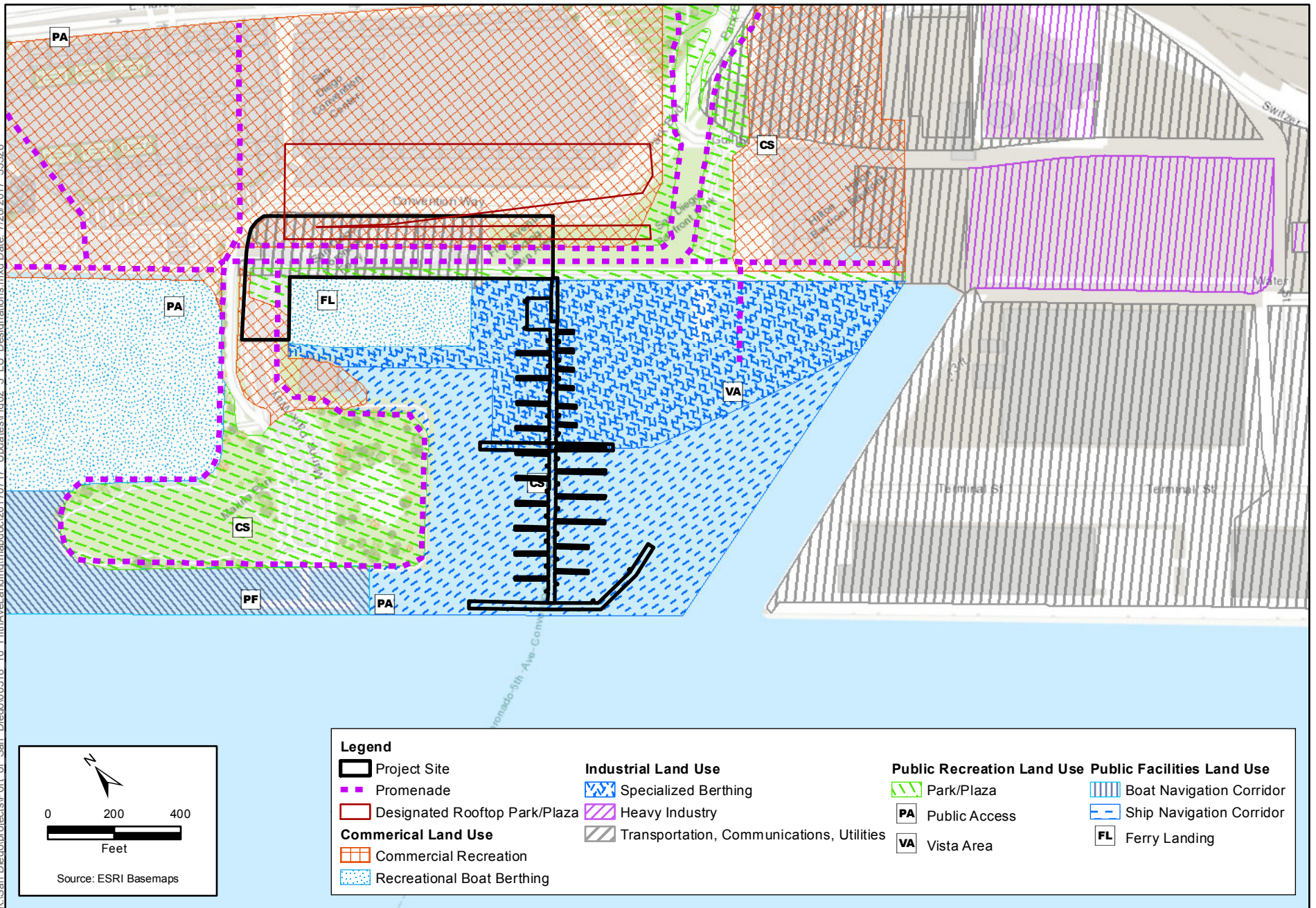


Figure 2-3
Project Site and Surrounding Area
Land and Water Use Designations
Fifth Avenue Landing Project

2.5 Existing Site Conditions

The 18-acre project site consists of landside and waterside areas. Topographically, the landside portion of the project site is relatively flat and slopes from northeast to southeast and west at a slope of less than 1% (District 2012). The landside surface elevation of the site ranges from approximately 9 feet above mean sea level (AMSL) at the northeastern boundary of the site to 5 feet AMSL at its southwestern boundary.

The landside portion of the project site is composed of paved, developed, and landscaped areas and includes: an approximately 0.75-acre paved parking lot containing 25 parking spaces; the WTC ticket booth; an approximately 2-acre second parking lot containing approximately 278 parking spaces that serves as truck storage and ancillary parking for the SDCC; a temporary mobile trailer office; a portion of the Embarcadero Promenade; a public bathroom; 30,300 square feet of park area; and local access routes that include the intersection of Convention Way and Marina Park Way (see Figure 2-4). As discussed in Section 4.3, *Biological Resources*, the landside portion of the project site does not support any native or sensitive vegetation, but does include trees and other ornamental plantings.

The waterside portion of the project site is part of the Bay and includes an existing 12-slip marina for yacht and sailboat docking, ferry landing, and on-call water transportation services. As discussed in Section 4.3, *Biological Resources*, the marine habitat types include unvegetated soft bottom, vegetated soft bottom, docks and piles, armored rocky bottom, intertidal rip-rap and seawall, and open water.

Table 2-1 provides a list of 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 Energy*. Existing storm drains are also discussed in Section 4.8, *Hydrology and Water Quality*.

Table 2-1. Existing Site Conditions

Portion of Project Site	Area	Description of Existing Land Uses
Landside	5 acres	Includes WTC ticket booth, associated 25-space public parking lot, a public restroom, a second paved multi-use lot servicing the SDCC that when not in use is temporarily converted to up to 278 parking spaces, a segment of the Embarcadero Promenade, and 30,300 square feet of park area.
Waterside	13 acres	Includes a marina consisting of 12 vessel slips for yacht and sailboat docking, a water transportation ferry service, and on-call water transportation services (i.e., water taxi).

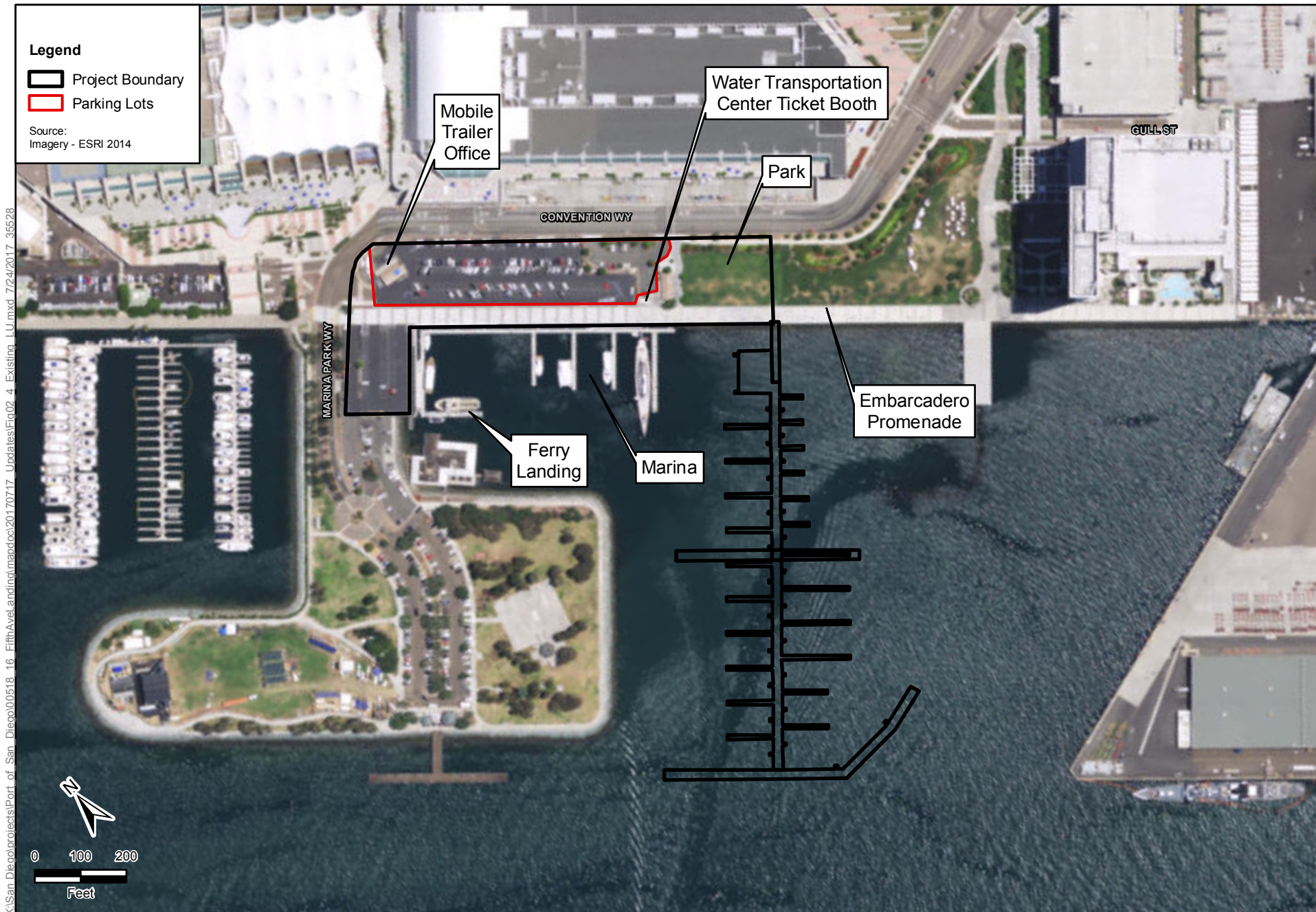


Figure 2-4
Existing Land Uses
Fifth Avenue Landing Project

2.6 Existing Operational Conditions

The project site is currently utilized as a parking lot, public park, WTC, and marina. The WTC also includes a yacht and sailboat docking area and a ferry landing that is used by the Flagship San Diego Harbor Excursion, which operates a daily water transportation ferry service and water taxi, an on-call water transportation service along the Bay. One employee currently works on site to staff the WTC. In 2015, the ferry service transported approximately 290,000 passengers and in 2016 it transported approximately 222,672 passengers. The water taxi service is a pre-arranged service that provides transportation throughout the Bay to groups of no less than 20 people. The service is typically only used a few times per year (Palermo pers. comm.).

3.1 Introduction

Fifth Avenue Landing, LLC, as the project proponent, is proposing a commercial and recreational bayside redevelopment on approximately 18 acres (approximately 784,100 square feet) (project or proposed project). As proposed, the project would include construction and operation of the following.

- An 850-room, approximately 498-foot-high, 44-story, market-rate hotel tower.
- Approximately 55,583 square feet of meeting space.
- Up to 565-bed approximately 82-foot-high, 5-story, lower-cost, visitor-serving hotel.
- Approximately 6,000 square feet of retail development along the Embarcadero Promenade.
- Approximately 1.96 acres (85,490 square feet) of public plaza and park areas throughout the project site, which would replace 0.7 acre (30,300 square feet) of public park/plaza located within the area proposed for the lower-cost, visitor-serving hotel.
- Approximately 263 onsite parking spaces (combination of striped and valet parking spaces).
- A two-phase expanded marina with up to 50 new slips (approximately 23 slips in Phase I and 27 slips in Phase II) that, combined with the existing 12 slips, would total up to 62 slips.
- An optional connecting bridge from the hotel rooftop public plaza and park area to the San Diego Convention Center (SDCC) that would require potential concurrence of the City of San Diego (City) and an amendment to the existing Convention Center Management Agreement for the SDCC by and between the City of San Diego and the District (District Document No. 37944) (Management Agreement) prior to implementation.

This chapter's contents include the project need and purpose, project objectives, project description, and necessary 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 provided as Figure 2-2.

The project was presented to the Board for preliminary project review on March 8, 2016. At that time, the Board authorized staff to commence the environmental review process.

3.2 Project Need and Purpose

The District's 2012–2017 COMPASS Strategic Plan establishes the goal of providing a “vibrant waterfront destination where residents and visitors converge.” Currently, the Centre City Embarcadero (Embarcadero) is the waterfront area for an urban region supporting over 2.7 million people. The pierside maritime activities of commercial fishing boats, merchant ships, Navy vessels, and pleasure craft contribute to the fabric of the Embarcadero. The existing project site contains two parking lots, one of which is used for overflow parking and setup and breakdown associated with

the SDCC, a 30,300-square-foot park area, a water transportation center (WTC) ticket booth, a public bathroom, a portion of the Embarcadero Promenade, a 12-slip marina, a water transportation ferry service, and an on-call water transportation service. The project site is currently not seen as a destination in and of itself; visitors currently pass by it on their way to another location or it is used as a staging area for SDCC operations. As a result, the project site, in its current state, does not address the goal of the COMPASS Strategic Plan and more can be done to create a more vibrant waterfront destination.

The purpose of the proposed project is to further activate the Embarcadero by (1) providing additional overnight accommodations for visitors to the Embarcadero, the SDCC, downtown San Diego, and the numerous waterfront amenities in the area; (2) providing additional accommodations for a wide range of visitors (the proposed project would include both a market-rate hotel tower and lower-cost, visitor-serving hotel to ensure overnight visitors have a range of options at the waterfront); (3) expanding recreational amenities within the Embarcadero area, including an increase of approximately 1.96 acres of public plaza and park areas, and expanding the existing marina; and (4) maintaining and activating the existing promenade by providing visitor-serving retail such as cafés, gift shops, and outdoor eateries. Each of these components would encourage visitors to see the project site as a destination, rather than as an area to pass through.

The proposed 850-room market-rate hotel tower would meet or exceed the service quality of standard of the Hilton San Diego Bayfront, Marriott Marquis San Diego Marina, and Manchester Grand Hyatt hotels. Public access would be enhanced by providing way-finding signage, which would allow and encourage visitors to access the waterfront from the downtown area more easily, and provide activities and services to increase their length of stay along the waterfront.

3.3 Project Objectives

The District has identified the following objectives for the proposed project.

1. Provide for the development and operation of a full-service hotel of a size, quality, and location appropriate for first-class convention operations that is a financially viable operation and is of a similar size and stature as nearby hotels such as the Hilton San Diego Bayfront Hotel (approximately 1,200 rooms), Manchester Grand Hyatt Hotel (approximately 1,625 rooms), and Marriott Marquis San Diego Marina Hotel (approximately 1,355 rooms).
2. Provide lower-cost, visitor-serving accommodations to allow greater access and enjoyment by the public that complies with Board Policy 775, *Guidelines for the Protection, Encouragement, and, Where Feasible, Provision of Lower Cost Visitor and Recreational Facilities*.
3. Provide for infill development on District tidelands that: (a) is compatible with surrounding uses; (b) maximizes the economic benefit to the District and City of San Diego and surrounding region by maximizing hotel room revenue, restaurant and retail sales, and hotel and retail sales taxes; and (c) generates sufficient leasehold revenue to support the District's participation in financing its mission of developing a balance between economic benefits, environmental stewardship, and public safety on behalf of the citizens of California.
4. Increase activation at the project site and along the bayfront by providing public plaza and park spaces, accompanied by visitor-serving retail, an expanded marina, a new water transportation center, and continuing operation of the existing public in-Bay water transportation system.

5. Provide new public vista opportunities of San Diego Bay from vantage points such as the San Diego Convention Center (SDCC) and proposed public plaza and park areas.
6. Improve public access by providing linkages from the City to the waterfront and Embarcadero Promenade by providing wayfinding signage at multiple entry points, including potential development of a pedestrian bridge that connects the project site with the SDCC and the Gaslamp Quarter of downtown San Diego.
7. Pursue Leadership in Energy and Environmental Design (LEED) Silver certification or achieve an equivalent level of sustainability by incorporating sustainable practices in all elements of project design and construction, leading to a reduction in energy use, water use, and solid waste generation as compared to standard hotel and visitor-serving developments.

3.4 Proposed Project Description

The proposed project includes landside and waterside components as well as an amendment to the Port Master Plan (PMP) Planning District 3, Centre City Embarcadero (see Section 3.4.10 for details). The landside components include a market-rate hotel tower; lower-cost, visitor-serving hotel; a new WTC; an onsite parking structure; and several enhanced public spaces and amenities: an optional connecting bridge to the public viewing areas of the SDCC, open space plazas and parks, and visitor-serving retail development. The waterside components include a marina expansion with additional slips and continuing operation of the existing public in-Bay water transportation system. Figure 3-1 provides an overall site plan for the proposed project, while Figure 3-2 through Figure 3-4 provide renderings of the project from landside and waterside angles.

Table 3-1 identifies the land uses proposed as part of the proposed project. The subsections that follow the table describe the key components in further detail.

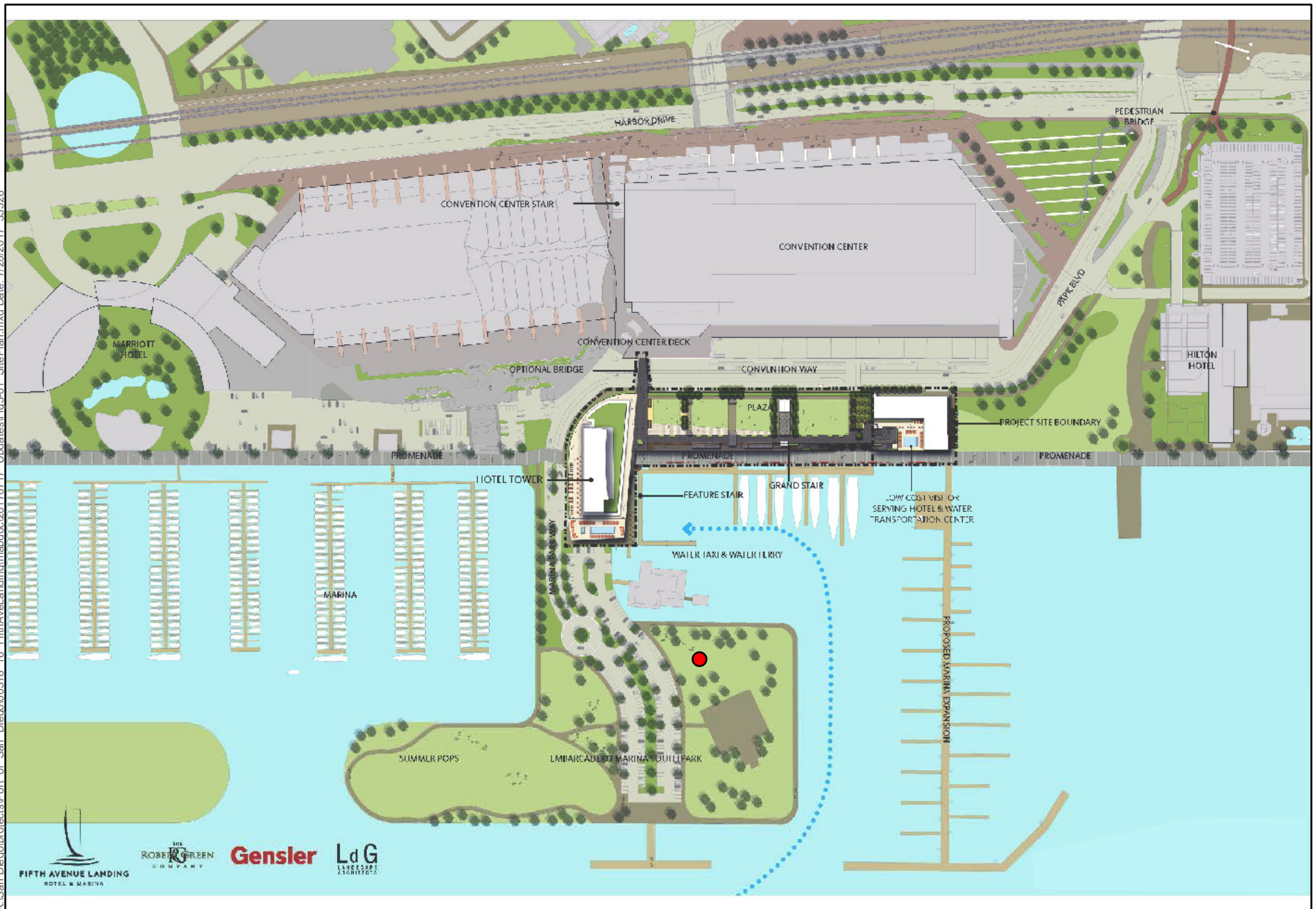


Figure 3-1
Proposed Project Site Plan
Fifth Avenue Landing Project





Figure 3-3
Landside Overview Rendering
Fifth Avenue Landing Project



Table 3-1. Proposed Project Components

Proposed Project Components	Approximate Size (Square Feet)	Description	Location
Market-Rate Hotel Tower (44-stories, 498 feet high)	796,000 gross square feet (not including public plaza and park areas)	<ul style="list-style-type: none"> • 850 rooms • 55,583 square feet of meeting space, including: <ul style="list-style-type: none"> ◦ 15,991-square-foot ballroom ◦ 8,675 square feet of junior ballrooms ◦ 30,917 square feet of additional meeting rooms • 30,188 square feet of pre-function space • 82,300-square-foot rooftop public plaza and park area. Includes a multifunctional plaza and lawn, public park plaza, and public park plaza and public observation terrace • 3,190-square-foot at-grade public promenade • Feature Staircase and Grand Staircase from rooftop public plaza and park area 	Northwestern portion of the project site
Lower-Cost, Visitor-Serving Hotel with Water Transportation Center (WTC) (5 stories, 82 feet high)	<ul style="list-style-type: none"> • Hotel: 80,000 gross square feet • WTC: 6,127 square feet 	<ul style="list-style-type: none"> • 565 beds • 3,903-square-foot at-grade public pedestrian walkway • WTC consisting of an accessory office, business center, ticketing, and gym for hotel guests and marina users 	Southeastern portion of the project site
Optional Connection Bridge to the SDCC	1,882 square feet (length of 85 feet and a width at the narrow end of 18 feet and wide end of 26 feet)	<ul style="list-style-type: none"> • Optional bridge that provides direct pedestrian connection from the project site to the SDCC 	Connects view deck of the SDCC to the proposed rooftop plaza
Hotel Exterior Space	85,490 gross square feet (1.96 acres) and optional 1,882-square-foot bridge	See Table 3-2 and Figure 3-12 below	Throughout the project site
Visitor-Serving Retail Storefronts	6,000 square feet	<ul style="list-style-type: none"> • Five visitor-serving retail storefronts • Open-air cafés, food and beverage outlets, gift shops, etc. 	Along promenade and masking proposed parking structure
Marina Expansion	Additional 57,696 square feet	See Figures 3-14 and 3-15 below	Within the adjacent Bay

Proposed Project Components	Approximate Size (Square Feet)	Description	Location
Parking Structure (approximately 20 feet high from ground floor)	85,340 square feet	<ul style="list-style-type: none"> • Approximately 263 spaces for either striped or valet • Ground-level parking structure 	<ul style="list-style-type: none"> • Between market-rate hotel tower and low-cost visitor serving hotel • Beneath hotel meeting space and rooftop public plaza and park area

3.4.1 Market-Rate Hotel Tower

The proposed project would include the construction of an approximately 850-room market-rate hotel tower and open-air pedestrian archway that spans the Embarcadero Promenade. The market-rate hotel tower would rise approximately 498 feet above mean sea level and would total 44 stories in height. The market-rate hotel tower, including the associated retail, restaurant, and meeting space, would be approximately 796,000 gross square feet. In addition to the 850 guest rooms, specific components of the market-rate hotel tower are described in Table 3-1. Figures 3-5 and 3-6 provide the proposed hotel stacking plan and cross-section.

The market-rate hotel tower design is inspired by sail structures of the latest generation of America's Cup sailboats. This design would be a recognition of the maritime uses of San Diego Bay and the high-tech nature of the America's Cup sailboats. A rendering of the proposed hotel is provided as Figure 3-7.

As depicted on Figure 3-8, the open-air pedestrian archway would span the Embarcadero Promenade as visitors approach the market-rate hotel tower and would connect the market-rate hotel tower to its ballroom and meeting facilities, located above the proposed parking structure. The archway would be approximately 43 feet wide, reach a height of approximately 40 feet, and include a smaller glass bridge at a lower height, which would span the Embarcadero Promenade to allow visitors to cross onto the plaza and access other project amenities. The depth and height of the archway would allow pedestrians to experience Bay views, and its design would provide visual connection between the northern and southern portions of the Embarcadero Promenade.

Servicing of the proposed market-rate hotel tower would be accomplished by incorporating up to three loading docks near the north SDCC garage entrance.

3.4.2 Lower-Cost, Visitor-Serving Hotel with Water Transportation Center

The proposed project includes the construction by the project proponent of an approximately 565-bed lower-cost, visitor-serving hotel, renderings of which are shown on Figures 3-9 and 3-10. The proposed hotel would be a five-story, L-shaped structure and would reach an approximate height of 82 feet, with retail abutting the Embarcadero Promenade along the eastern side of the building. This hotel would be near the Hilton San Diego Bayfront Hotel and its bayside park, and include an approximately 3,903-square-foot at-grade public pedestrian walkway. The lower-cost, visitor-serving hotel would be situated on its own leasehold parcel as a stand-alone development.

Additionally, an approximately 6,127-square-foot WTC would be integrated into the building footprint of the lower-cost, visitor-serving hotel and would consist of an accessory office/marina business center to operate the WTC (3,327 square feet), ticketing (600 square feet), gym for hotel guests and marina users (the gym would not be open for monthly memberships to the public) (1,000 square feet), marina crews restroom/showers (600 square feet), and a marina guest lounge (600 square feet), all of which are illustrated on Figure 3-11. The WTC would serve marina customers and their boats as well as provide operational support for the marina and the existing water transportation ferry service. Parking for the WTC would be provided within the proposed parking garage (see Section 3.4.7, *Parking*).



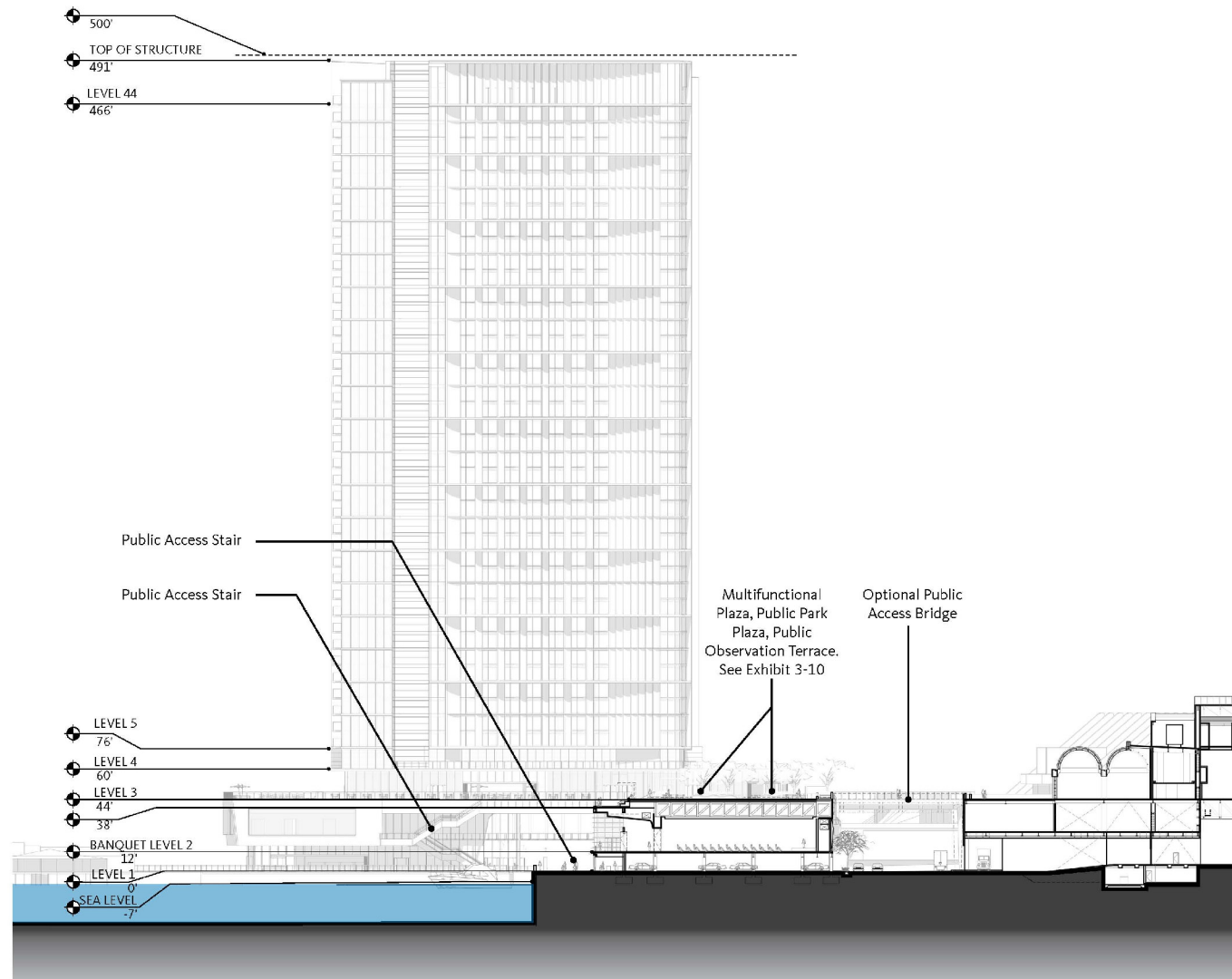


Figure 3-6
Hotel Tower and Public Access Plaza Cross-Section
Fifth Avenue Landing Project







Figure 3-9
Proposed Lower-Cost Visitor-Serving Hotel Rendering
Fifth Avenue Landing Project



Figure 3-10
Proposed Lower-Cost Visitor-Serving Hotel Rendering
Fifth Avenue Landing Project



Figure 3-11
Proposed Water Transportation Center Rendering
Fifth Avenue Landing Project

3.4.3 Optional Connecting Bridge to the San Diego Convention Center

As an optional project feature, the proposed project may potentially include a new public access bridge connecting the proposed market-rate hotel tower rooftop public plaza and park area to the SDCC view deck. This optional bridge connection would provide visitors with elevated and expansive views of the entire north and mid-Bay and would allow for travel to the City's Gaslamp Quarter. This optional bridge would be approximately 1,882 square feet with a length of 85 feet and a width at the narrow end of 18 feet and wide end of 26 feet. The paving materials for the proposed bridge would be designed to be integrated with the proposed rooftop public plaza and park area and may consist of a variety of enhanced materials including integral color decorative finished concrete, precast pavers, and/or stone accent paving. In addition, planting material would be included along the bridge in either integrated or free-standing planters. The guardrails are proposed to be constructed of painted metal or stainless steel or a combination of these along with solid planter walls. Concurrence of the District, and potentially the City of San Diego as the contractual managing entity of the SDCC, would be required prior to implementing this portion of the proposed project. An amendment to the Management Agreement between the District and the City of San Diego may also be required. Therefore, the bridge is identified as optional in this EIR. The EIR analyzes the project with and without the optional public access bridge component.

3.4.4 Public Plaza and Park Areas and Design Features

The proposed project would increase the total area of public plaza and park areas from approximately 30,300 square feet (0.70 acre) to approximately 85,490 square feet (1.96 acres). The public plaza and park areas would serve as resting and viewing areas for visitors and would include interpretive signage and public art. All the proposed public plaza and park areas would be designed with a combination of hardscape, drought-tolerant landscape, grass lawns, and artificial turf. In total, the proposed project would include four public plaza and park areas and a public promenade spread throughout the project site. Table 3-2 identifies each of the public plaza and park areas and the percentages of public and private usage of the areas. Figure 3-12 depicts the plaza and park area locations and Table 3-2 provides further detail on each. The proposed project would also maintain the existing 35-foot-wide Embarcadero Promenade across the site. The existing promenade does not count toward the proposed project's public plaza and park area described in Table 3-1. The proposed project would enhance the existing Embarcadero Promenade by providing retail adjacent to the promenade; increased seating areas; public restrooms; connection of lower-cost, visitor-serving hotel and market-rate hotel tower with the promenade with small plazas or lobbies; and access to the parking structure from the promenade; additionally, an optional pedestrian bridge would serve to connect pedestrian circulation from Downtown San Diego and SDCC to the Promenade.

As depicted on Figure 3-12, in addition to the proposed public plaza and park areas, the proposed project provides public access throughout the project site and to connect to surrounding uses. One of the public access features includes the construction of a walkway around the market-rate hotel tower in order to maintain public access to the views along the San Diego Bay.

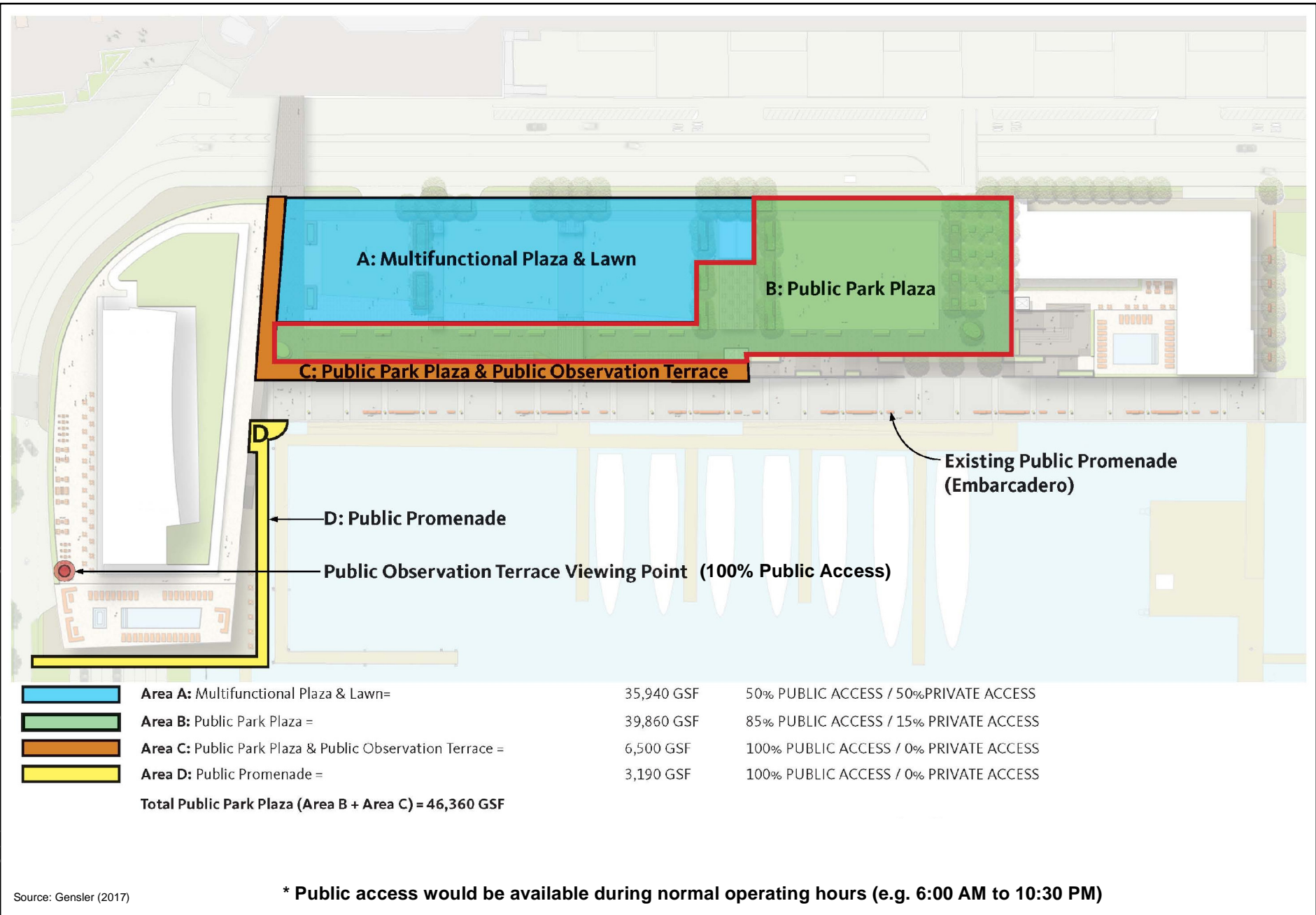


Table 3-2. Proposed Public Plazas and Park Areas

Figure 3-12 Key	Title	Area (square feet)¹	Location	Access	Available to Public
A	Multifunctional Plaza and Lawn	35,940	Above the ballrooms, meeting rooms, and parking structure ²	Ground-level via the public Embarcadero Promenade; market-rate hotel tower; SDCC via the Optional Connecting Bridge	50% public access/50% private access/Managed by Operator
B	Public Park Plaza	39,860	Above the ballrooms, meeting rooms, and parking structure ²	Ground-level via the public Embarcadero Promenade; market-rate hotel tower; SDCC via the Optional Connecting Bridge	85% public access/15% private access/Managed by Operator
C	Public Park Plaza and Public Observation Terrace	6,500	Marina overlook	Ground-level via the public Embarcadero Promenade; market-rate hotel tower; SDCC via the Optional Connecting Bridge	100% public access
D	Public Promenade	3,190	Approximately 10-foot-wide walkway along the southeast portion of the market-rate hotel tower; will include a public viewing deck.	Ground-level via the public Embarcadero Promenade	100% public access
Total		85,490			

¹ Values are approximate.

² This plaza and park area would be on the roof of the market-rate hotel tower ballroom and parking structure, described in Section 3.4.1, *Market-Rate Hotel Tower*.

Note: A more detailed description of these areas can be found on Figure 3-16, *Landscape Concept Site Plan*.

3.4.5 Visitor-Serving Retail Storefronts

The proposed project would include up to five visitor-serving retail storefronts consisting of open-air cafés, food and beverage outlets, gift shops, and other visitor-serving retail establishments along the Embarcadero Promenade. These retail venues would total approximately 6,000 square feet and are intended to encourage activation of the existing Embarcadero Promenade. Figure 3-13 provides a site plan of the proposed retail storefronts.

3.4.6 Marina Expansion

The proposed project marina expansion would include waterside and landside components (see Figure 3-1). The waterside components include adding new vessel slip space, constructing a new pile-supported pier, possibly constructing a breakwater with wave attenuation panels, and improving public access to the waterfront. The landside component involves removing the existing office trailer, WTC ticket booth, public restroom, and pavement; and reconstructing the bulkhead and anchors.¹

The existing vessel slip space would be expanded by an additional 57,696 square feet of pile-supported dock space. The marina would be constructed in two phases. Phase I would add 23 new marina slips ranging in size from 50 feet to 200 feet and would be constructed during the hotel construction timeframe. These slips would be accessible from the proposed pile-supported dock, which would be approximately 20 feet in width and extend approximately 439 feet for Phase I. A breakwater with wave attenuation panels may be included as part of the proposed project to reduce wave energy coming into the marina. The breakwater, located at the end of the proposed dock, would be approximately 400 linear feet and 20 feet in width.

Phase II would provide an additional 27 slips ranging in size from 50 feet to 240 feet and would be constructed when market conditions allow, approximately 5 years after the hotels are in operation, but is not anticipated to occur any sooner. Total buildout would allow for 50 additional slips, for a combined total of 62 slips, including the existing 12 slips, to accommodate both small and large vessels. These slips would be accessible from the proposed pile-supported dock, which would be approximately 20 feet in width and extend approximately 922 feet into the San Diego Bay for Phase II with a breakwater of approximately 630 linear feet and 20 feet in width. Each slip would have shoreside power, as well as connections to the City's water and sewer systems.

The possible fleet mix of the expanded marina would allow for smaller boats to be integrated into the marina while at the same time allowing larger vessels to dock. Figures 3-14 and 3-15 depict the proposed Phase I and Phase II marina layouts, respectively, and the proposed dock and slip lengths and quantities. The proposed fleet mix may change slightly, but Figures 3-14 and 3-15 represent the worst-case scenario (i.e., resulting in the most impacts) for purposes of the EIR analysis.

Improvements to public access as a result of the proposed project include signage and dock space for larger and smaller vessels.

¹ Note that the existing marina office would be replaced with the WTC and enhanced as part of the lower-cost, visitor-serving hotel development component described in Section 3.4.2.

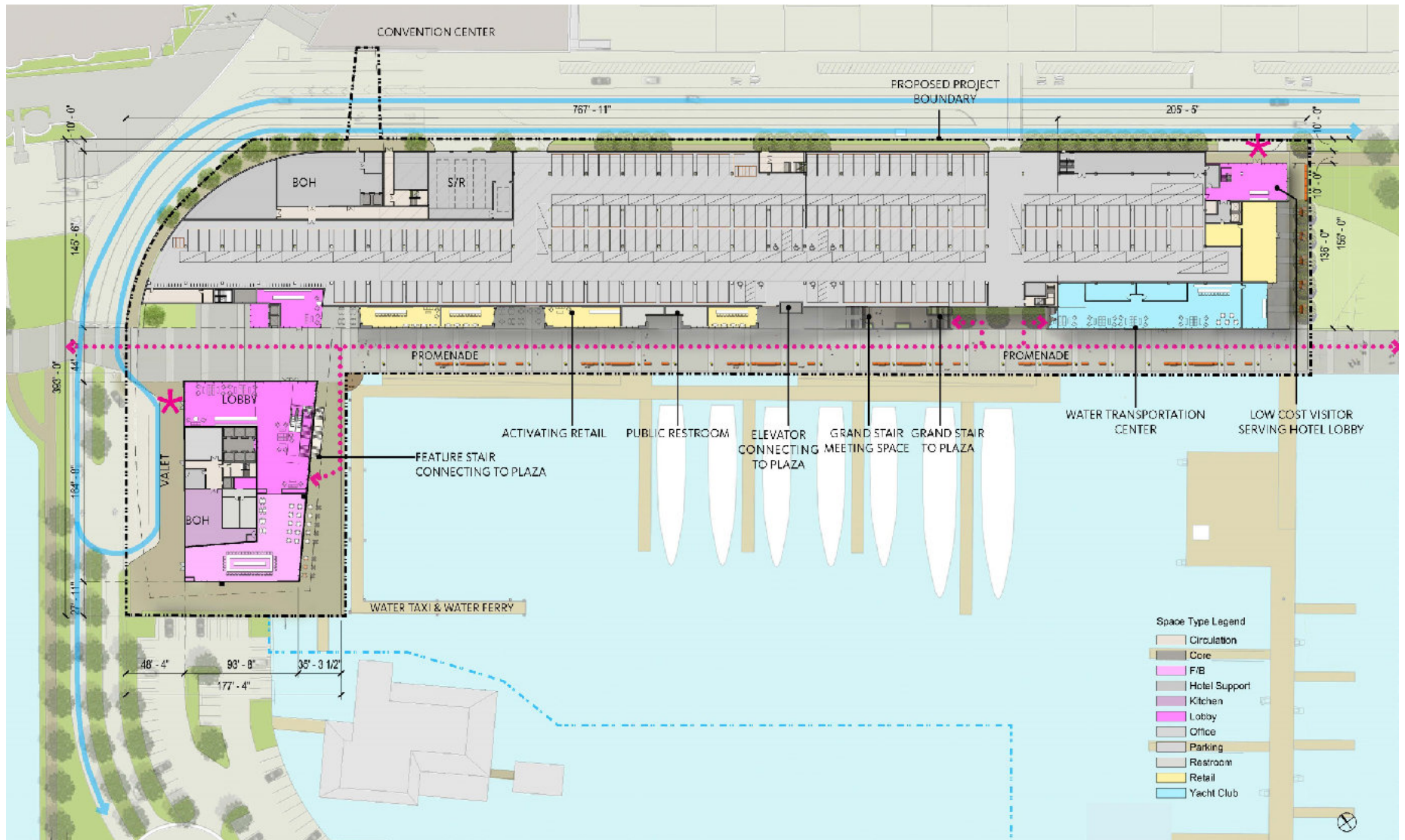
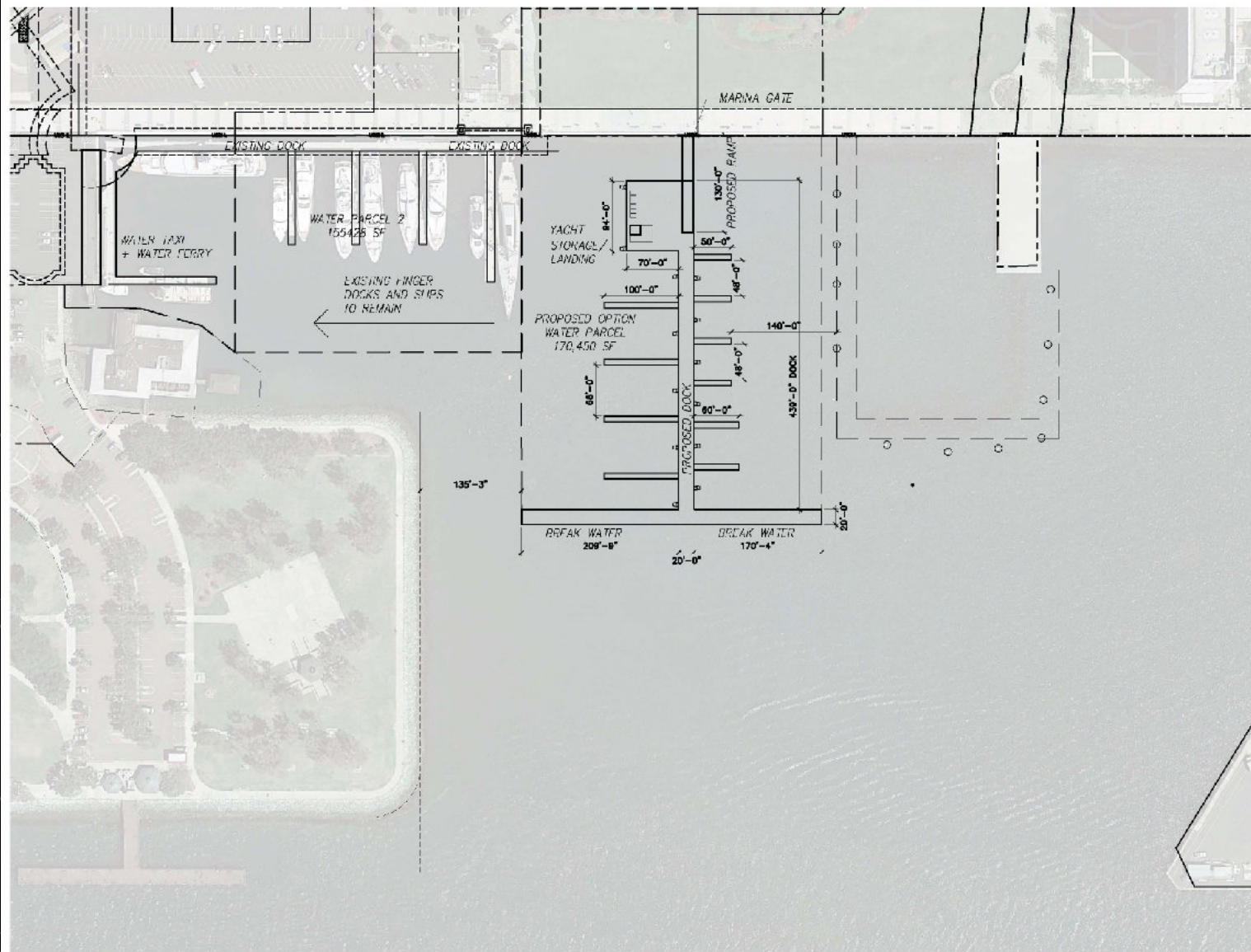


Figure 3-13
Proposed Site Plan at the Ground Level
Fifth Avenue Landing Project



LEGEND

COLD BURNING POWER MODULE (6' x 8')	
FINGER DOCK (6' x 180')	
FINGER DOCK (6' x 80')	
FINGER DOCK (6' x 80')	

AREA SF SUMMARY

Proposed Construction	Qty	Length	Wd	Area
50' Finger Dock	4	50'	8'	1600
80' Finger Dock	2	80'	8'	960
100' Finger Dock	1	100'	8'	800
Yacht Storage/Landing	1	24'	70'	1680
Cold Burning Power Module	3	6'	8'	144
Break Water	1	400'	20'	8000
Ramp	1	120'	14'	1680
TOTAL AREA SQUARE FT				33560

WATER PARCEL AREA SF SUMMARY

WATER PARCEL 2	155,425 SF
OPTION WATER PARCEL	170,450 SF
WATER PARCEL 3	285,800 SF
TOTAL	500,980 SF

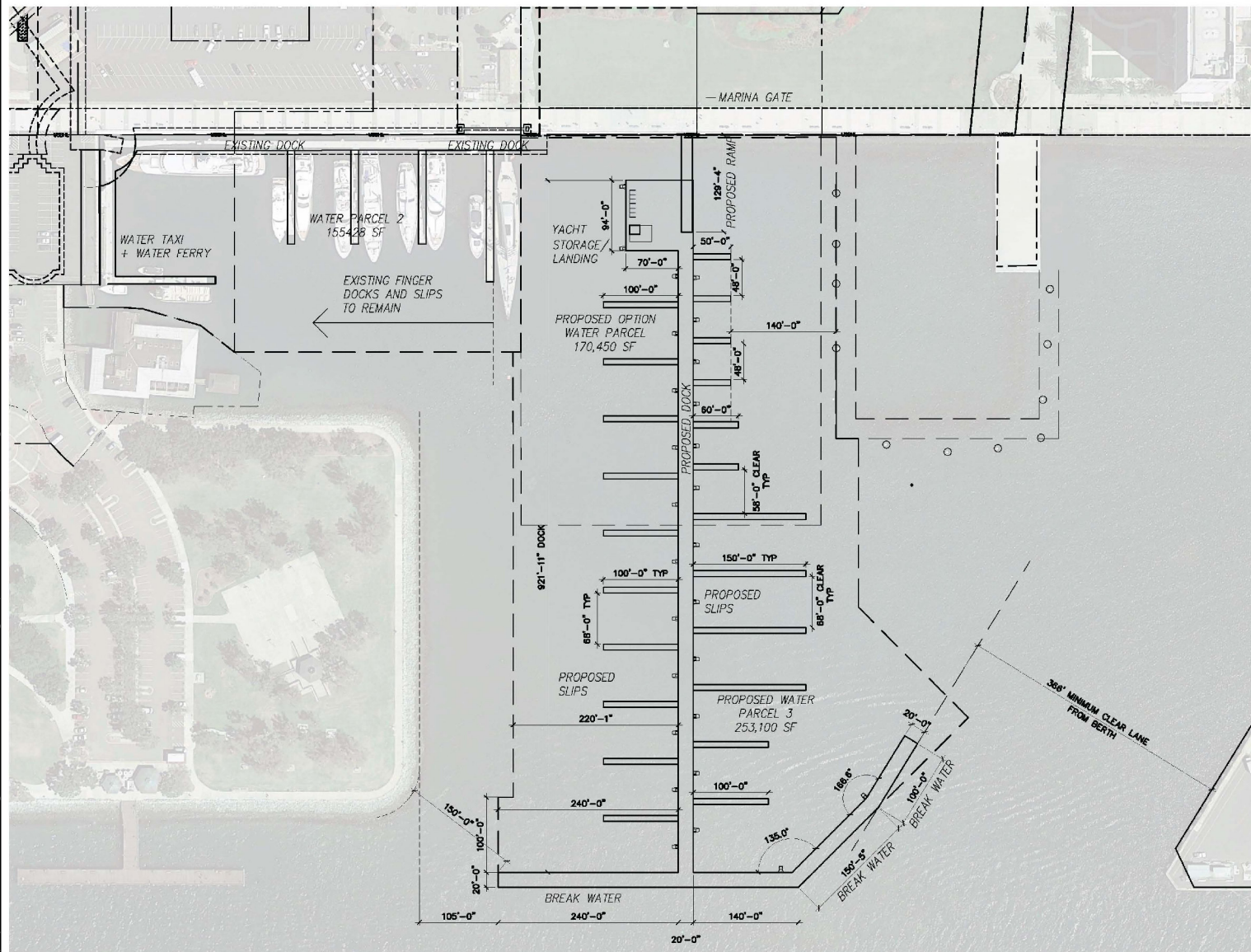
(37,550 SF REDUCTION)

GENERAL NOTES

1. DIMENSIONS AND CLEARANCES ARE APPROXIMATE AND BASED ON A GOOGLE EARTH IMAGE. ALL DIMENSIONS AND CLEARANCES TO BE REVIEWED BY A CIVIL ENGINEER WITH A ASLA SURVEY.

ESTIMATED SLIP QUANTITY SUMMARY

SLIP SIZE	QTY
OUTER SLIP LENGTH	8
INLET SLIP LENGTH	4
175' SLIP LENGTH	2
120' SLIP LENGTH	7
120' SLIP LENGTH	1
220' SLIP LENGTH	1
TOTAL NO. OF SLIPS	23



LEGEND

COLD IRONING POWER MODULE (6' X 8')	12
FINGER DOCK (6' X 150')	1
FINGER DOCK (6' X 100')	1
FINGER DOCK (6' X 60')	1
FINGER DOCK (6' X 50')	1

AREA SF SUMMARY

Proposed Construction	Qty	Length	Width	SF
50' Finger Dock	4	50	8	1600
60' Finger Dock	2	60	8	960
100' Finger Dock	12	100	8	9600
150' Finger Dock	4	150	8	4800
Cold Ironing Power Module	27	6	8	1296
Yacht Storage / Landing	1	94	70	6580
Main Dock	1	922	20	18440
Break Water	1	630	20	12600
Ramp	1	130	14	1820
TOTAL AREA SQUARE FT				57696

WATER PARCEL AREA SF SUMMARY

WATER PARCEL 2	155,428 SF
OPTION WATER PARCEL	170,450 SF
WATER PARCEL 3	253,100 SF
TOTAL	579,978 SF

GENERAL NOTES

1. DIMENSIONS AND CLEARANCES ARE APPROXIMATE AND BASED ON A GOOGLE EARTH IMAGE. ALL DIMENSIONS AND CLEARANCES TO BE VERIFIED BY A CIVIL ENGINEER WITH A ALTA SURVEY

ESTIMATED SLIP QUANTITY SUMMARY

PHASE II PROPOSED BOAT SLIPS	
SLIP SIZE	QTY
50' SLIP LENGTH	8
60' SLIP LENGTH	4
75' SLIP LENGTH	2
100' SLIP LENGTH	26
150' SLIP LENGTH	9
240' SLIP LENGTH	1
TOTAL NO. OF SLIPS	50

The proposed landside marina improvements would include relocating the existing marina office to the promenade level of the lower-cost, visitor-serving hotel (see Section 3.4.2 for a description of the new water transportation center). In 2015, the ferry service transported approximately 290,000 passengers, and in 2016 it transported approximately 222,672 passengers. There currently are no plans to expand the ferry service; accordingly, no expansion is analyzed in this EIR. In addition, the project site operates an existing water taxi service, which is a pre-arranged service that provides transportation throughout the Bay to groups of no fewer than 20 people. The service is typically only used a few times per year. This service would continue to be operated at the project site with the implementation of the proposed project.

3.4.7 Parking

A one-level parking structure would be incorporated into the development between the market-rate hotel tower and the lower-cost, visitor-serving hotel. As depicted on Figure 3-13, the parking structure would be constructed at ground level and would be beneath the market-rate hotel tower meeting space/ballrooms and the rooftop public plaza and park area. The proposed visitor-serving retail (as described in Section 3.4.5, *Visitor-Serving Retail Storefronts*) would mask the parking structure from public view along the promenade. The capacity for approximately 263 onsite parking spaces, both striped and valet parking, would be provided, and access to the proposed parking structure would be provided on Convention Way.

The proposed parking structure would incorporate the use of natural light, LED lighting, and natural Bay breezes to cool the garage. Limited mechanical systems would be needed to ventilate or provide fresh air to the garage. Approximately 29 electric car charging stations would also be installed to accommodate electric vehicles.

As part of the existing ARC lease between the SDCC Corporation and the District for the project site, the project proponent has the right to seek 110 parking spaces in the offsite District-owned SDCC garage contingent upon availability, amendments to the existing Management Agreement, and the District issuing a lease agreement to the project proponent for the use of the 110 offsite parking spaces. At this time, there is no excess parking available in the SDCC garage and it is not reasonably foreseeable that such parking would be available to the project proponent. However, in the event 110 parking spaces become available and the remaining aforementioned conditions are satisfied, the EIR analyzes the proposed project with and without the offsite parking spaces.

Nearby parking facilities may be available for shared parking; however, the project proponent currently does not have any contractual rights to use any other parking garage, and no parking has been set aside for the proposed project. Parking supply and demand are discussed in detail in Chapter 4, Section 4.12, *Transportation, Circulation, and Parking*.

3.4.8 Onsite Circulation and Wayfinding

Visitors and hotel guests would access the project site from Harbor Drive and Park Boulevard, which turns into Convention Way. Convention Way would retain its current alignment and would be used for car and truck access to the project site during construction and operation of the proposed project.

Public signage along the promenade would illustrate San Diego Bay history, including its past and present working waterfront, interpretive signage, and location and wayfinding maps. This signage

would conform to the South Embarcadero Urban Design Guidelines and California Coastal Access signage statewide program. These guidelines include utilizing banners on street lights and minimizing signs that obstruct views of the San Diego Bay.

Signage off tidelands would be designed with input from and in cooperation with the SDCC, City of San Diego, and the District. Signage locations are proposed to include areas along Harbor Drive, Fifth Avenue, Convention Way, and the Gaslamp and Ballpark Districts.

3.4.9 Landscape and Water Quality Design Features

The proposed project would require the removal of 39 ornamental trees located within the existing parking lot area and park/plaza area. Figure 3-16 provides the conceptual landscape plan for the proposed project. The proposed project would include multiple trees and shrubs throughout the project site. Figures 3-17 and 3-18 provide the existing and proposed impervious and pervious surfaces on the site. The proposed project would increase the impervious surface by 18,540 square feet. The proposed project would include stormwater protection systems, including the capture of runoff and various landscape measures to improve Bay water quality. Landscaping would consist of drought-tolerant plants, and most runoff water would be recaptured through a filtered system that employs landscape troughs and other measures. Permeable surfaces would be used in place of concrete or asphalt where feasible.

The marina would be a zero-discharge facility. A marina Best Management Practice Plan would be drafted and implemented to ensure that marina operations do not degrade Bay water quality. The plan would be approved by the District prior to commencement of the marina development. Components of the plan include the use of educational materials that would be provided to boat owners and their crews. Docking agreements would contain specific use restrictions to prevent degradation of water quality. The marina operator would restrict boat repairs and cleaning operations. Hull bottom scraping and the use of toxic detergents used to clean vessels would be prohibited, and no overwater repairs would be allowed. Refueling would occur off site. The marina's onsite manager would enforce these restrictions and discharge any dock user who fails to comply with these restrictions after verbal warnings have been provided.²

3.4.10 Port Master Plan Amendment

As discussed further in Chapter 2, *Environmental Setting*, the current certified PMP designates a portion of the landside portion of the project site for the SDCC Phase III expansion. In addition, other land and water uses proposed as part of the project are not consistent with the existing PMP land and water use designations. Therefore, the proposed project proposes an amendment to PMP Planning District 3, Centre City Embarcadero. This PMP Amendment (PMPA) is proposed to change portions of the existing land and water use designations and to update the PMP maps, text, and tables to reflect the proposed project and corresponding land and water uses (see Figure 3-19). In addition, as shown in Figure 3-19, the PMPA identifies up to eight new designated vista areas to replace the five existing designated vista areas that would be displaced by the proposed project.

² These features and measures are also included within mitigation measure MM-HWQ-1 in Section 4.8, *Hydrology and Water Quality*.

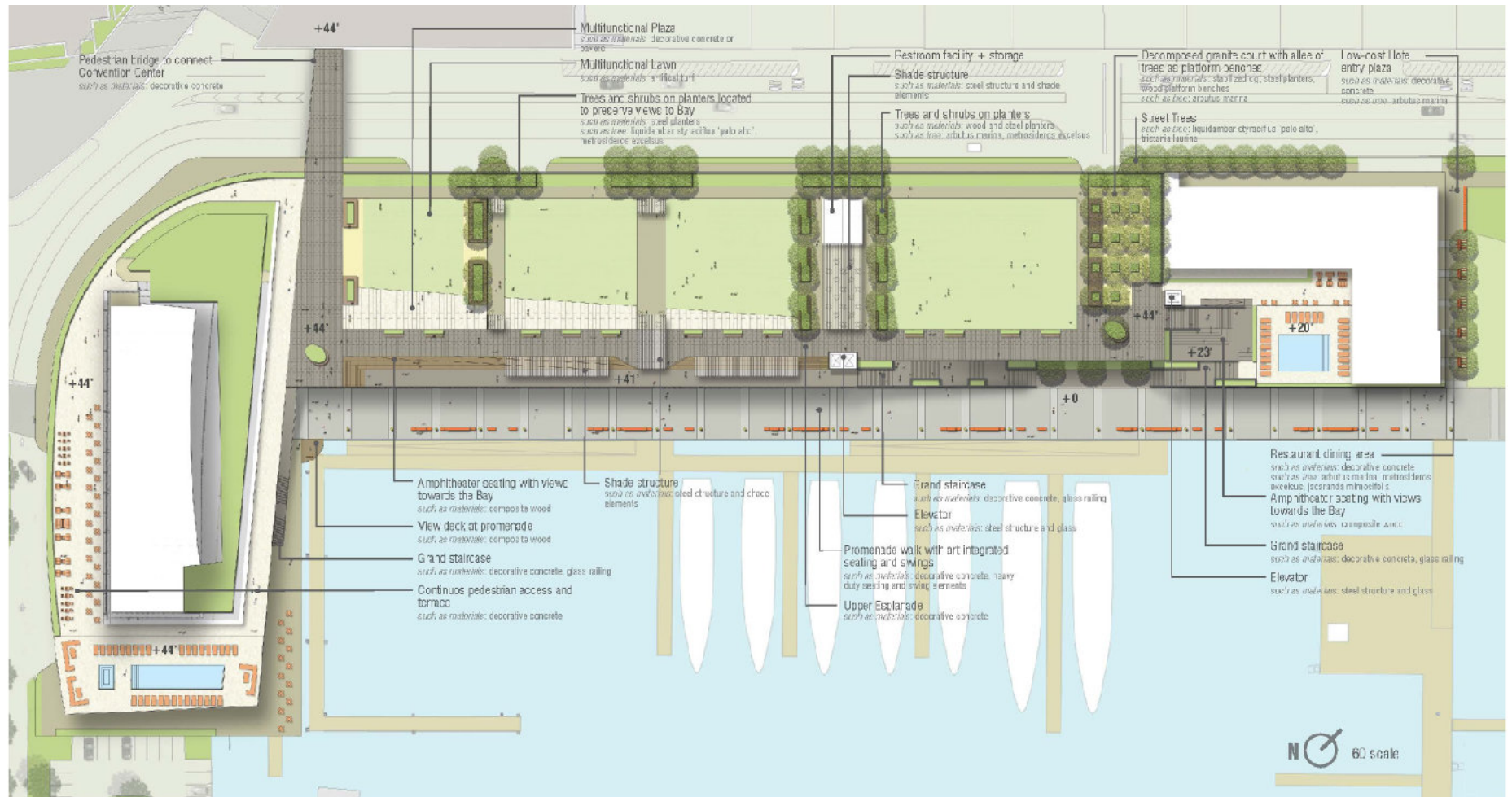


Figure 3-16
Landscape Concept Site Plan
Fifth Avenue Landing Project



Figure 3-17
Existing Impervious and Pervious Areas
Fifth Avenue Landing Project

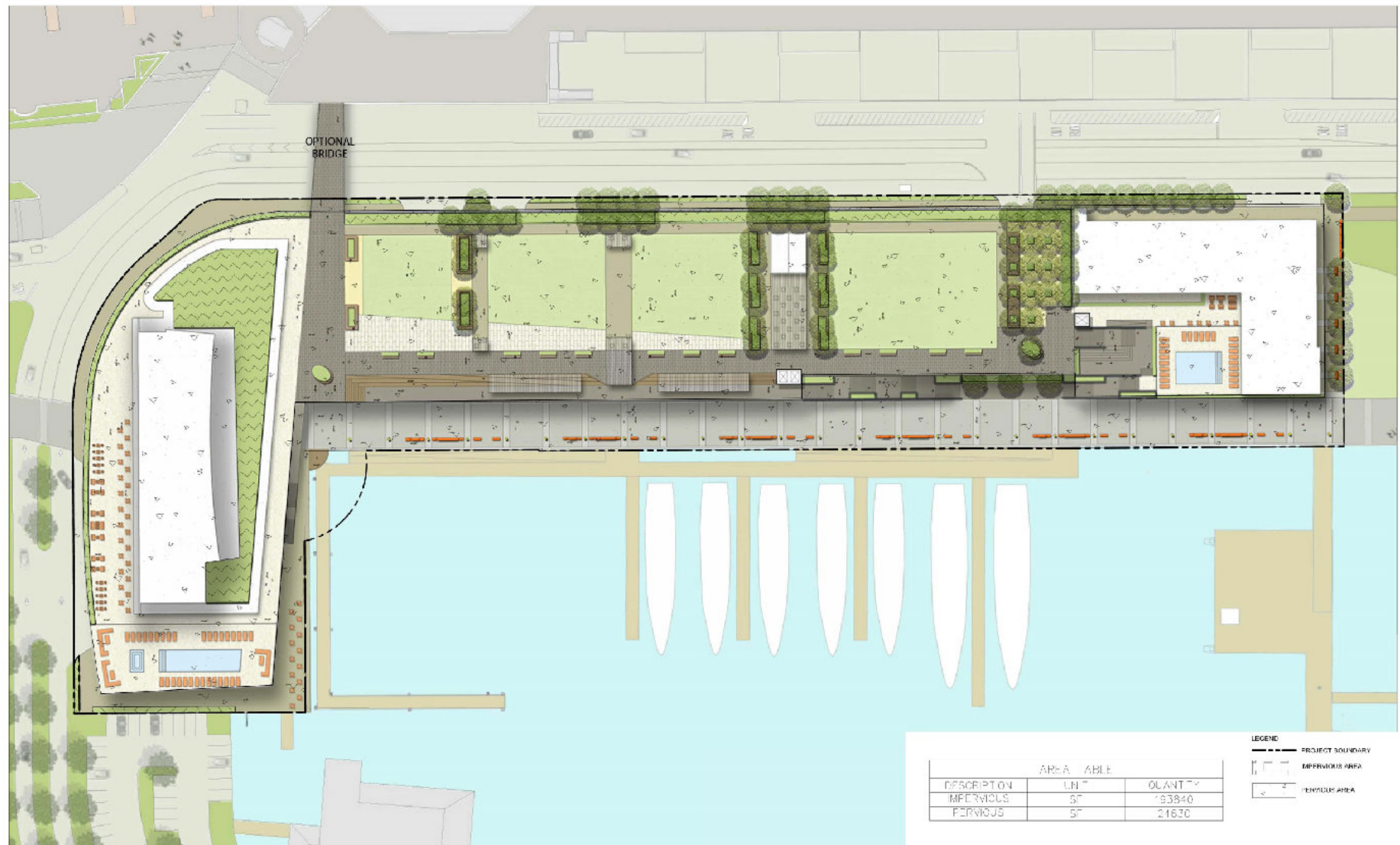


Figure 3-18
Proposed Impervious and Pervious Areas
Fifth Avenue Landing Project

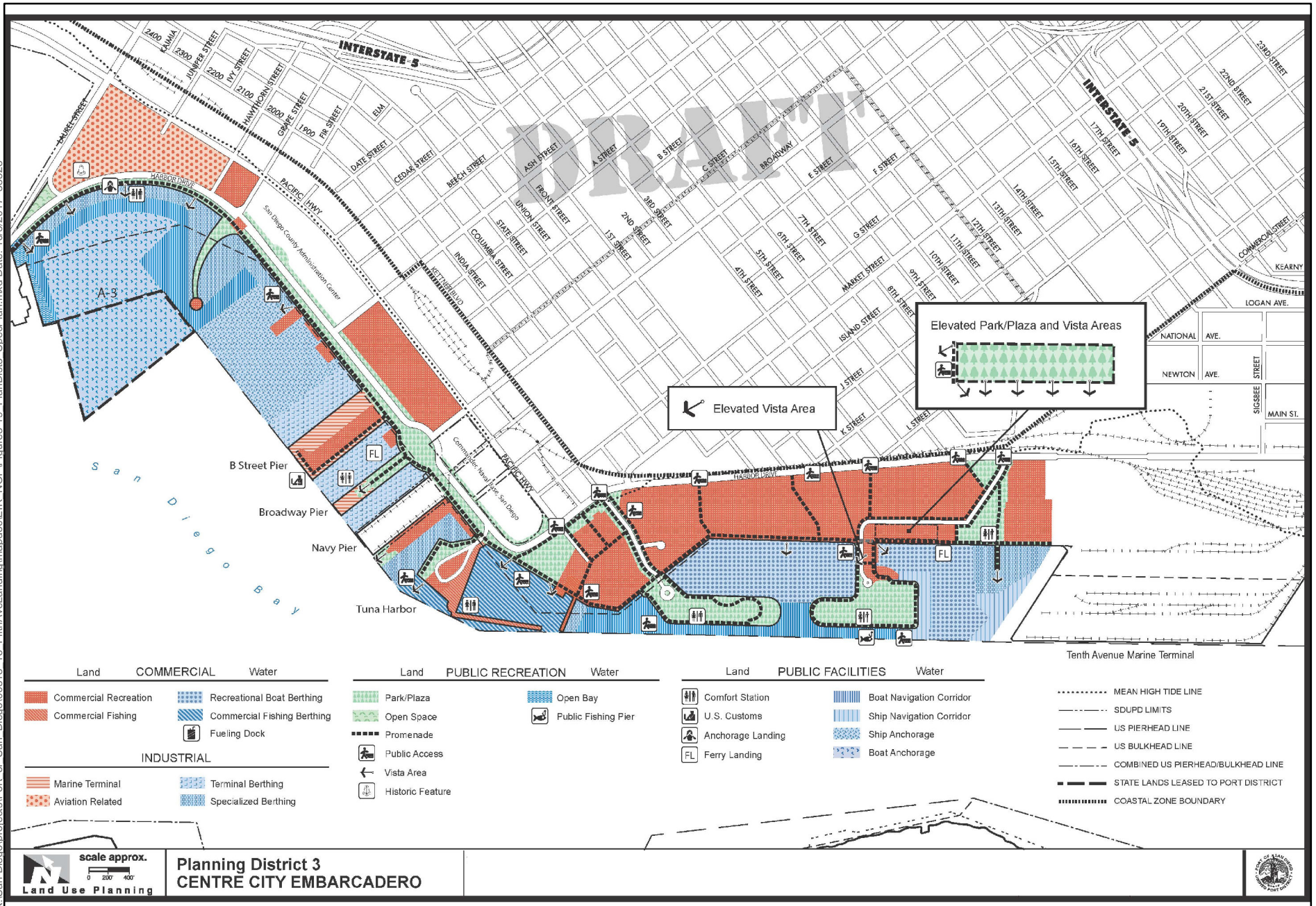


Figure 3-19
Proposed Planning District 3 Precise Plan
Fifth Avenue Landing Project

The proposed PMPA land and water use designation changes include, but are not limited to, the following.

- Commercial Recreation to Street
- Street to Commercial Recreation
- Specialized Berthing to Recreational Boat Berthing
- Ship Navigation Corridor to Recreational Boat Berthing
- Promenade to Commercial Recreation
- Park to Commercial Recreation
- Commercial Recreation to Park

The proposed PMPA is provided in Appendix C.

3.4.11 Project Construction

Construction of the hotels and Phase I of the marina expansion are anticipated to occur during approximately 24 to 30 months and would be completed as early as 2021. Construction activities would occur between 7 a.m. and 7 p.m. in compliance with City of San Diego building code and regulations.³ Construction staging activities would occur within the project site. All staging areas are paved or heavily disturbed with no existing vegetation. During construction, once all of the landside buildings are under construction, staging would have to occur off site. Offsite staging would be at the R.E. Staite property located at 2145 Belt Street, San Diego. This site is heavily disturbed with no existing vegetation because the site is already used as a construction staging location for R.E. Staite's construction equipment. Construction parking is also proposed at the R.E. Staite site.

As discussed above, the marina expansion would be constructed in two phases (Phase I and Phase II). The Phase I marina expansion would be constructed at the same time the market-rate hotel tower is constructed and would take approximately 6 to 9 months to be completed. However, the construction of the Phase II marina expansion would be market driven and customer dependent. It is anticipated that the Phase II marina expansion would be constructed within approximately 5 years after the market-rate hotel tower is constructed and is not anticipated to be constructed before then. Phase II of the marina expansion construction is expected to include similar equipment and occur over a similar timeframe (e.g., 6–9 months) as Phase I.

Demolition, grading, and pouring of foundations would occur first. All of the existing landside uses on the project site would be demolished to accommodate the construction of the proposed project. The existing 35-foot-wide Embarcadero Promenade would be maintained during construction and in the event that there is a temporary disruption that portion of the promenade would be diverted within the project site. In total, approximately 5 acres would be graded that would require demolition of approximately 1,711 cubic yards of the parking lot, 1,407 cubic yards of the hardscape, and 38,350 cubic yards of other materials, including concrete from existing buildings. Approximately 98% of the asphalt would be recycled on site, as well as 25% of the hardscape. In addition, construction within the landside area would require the removal of 39 existing ornamental trees located on the project site.

³ When the District has not adopted its own code or regulation on a specific topic, it defers to the corresponding member city's codes and regulations for the same.

The type of construction materials that are anticipated to be used for the proposed project consist of structural steel and concrete; electrical and mechanical systems; interior and finish materials; landscaping and security systems; and interior furnishings, fixtures, and equipment. Material delivery would occur daily throughout the construction period. Some construction components may arrive by sea, such as steel beams, and be offloaded to either the Tenth Avenue Marine Terminal or at the nearby marina.

For the landside development, standard construction equipment would be used, 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. The foundations for all major structure would be pile supported, similar to other bayside, multi-story structures. Approximately 1,200 piles would be utilized for construction of the landside portion of the project site, and would be driven to a depth of approximately 60 feet.

The waterside development construction equipment would include the use of Derek barges, push boats, anchors or spuds, and equipment to either internal jetting or straight pile driving the piles. For the marina expansion, approximately 188 piles (623 square feet) would be driven to depths ranging from 50 to 90 feet. With the addition of the breakwater, the proposed project would result in approximately 13,623 square feet of bay fill. Specifically, Phase I would require approximately 60 piles (199 square feet) and Phase II, which includes the breakwater, would require approximately 128 piles (424 square feet).

Construction of the proposed project would not require permanent dewatering. Short-term dewatering may be necessary during construction of the foundations for the market-rate hotel tower and its related project elements. The proposed project would comply with dewatering requirements imposed by the San Diego Regional Water Quality Control Board.

During construction of the proposed project the Embarcadero Promenade fronting the project site would remain open but would be temporarily narrowed from 35 feet to 15 feet. However, for approximately 18 months during construction of the market-rate hotel tower lobby, which spans the promenade, pedestrian traffic would be routed along Convention Way. All closures, construction, and delivery schedules would be coordinated with the District and the SDCC.

The workforce during the construction phase would range from 500 to 1,100 construction workers, with a daily average around 186 workers. Construction workers would be incentivized to use public transportation and be required to park in an offsite parking facility.

3.4.12 Project Operation

The proposed project would operate as a fully functioning market-rate hotel and lower-cost, visitor-serving hotel, marina, WTC, publicly accessible waterfront with retail options, and publicly accessible plaza and park areas. The usage of the public plaza and park areas is described in detail above in Table 3-2. In addition to hotel rooms, the hotels would provide space within the hotel and on the public plaza and park area for special events such as weddings and conferences. The marina would allow for a variety of vessels to dock as well as amenities for visitors such as ticketing, restrooms, and a gym, which would only be used by hotel guests and users of the marina. The retail options could include restaurants, cafés, coffee shops, and other visitor-serving uses.

3.4.12.1 Operating Equipment

The proposed project would include operating equipment for the proposed project components. The proposed market-rate hotel tower and associated functional rooms, amenities, meeting rooms, and ballrooms would be served by a central plant, which would include a conventional emergency generator, central chiller, a cooling tower, a boiler plant, dedicated outside air-handling systems, air-handling units, fans, and a domestic hot water plant. The lower-cost, visitor-serving hotel would be served by self-contained air units, air-handling units, exhaust and building fans, and a domestic hot water plant. The parking structure would have openings in the façade and walkway to allow fresh air to be drawn into the structure, and exhaust fans would be provided to discharge vehicle exhaust. The visitor-serving retail storefronts would be served by self-contained air units. In addition, the WTC would be served by dedicated air units. Finally, all buildings, including the parking structure, would include fire sprinklers.

3.4.12.2 Utilities

Detailed utility demand and supply is provided in Chapter 4, Section 4.14, *Utilities and Energy*. As discussed further in Section 4.14, the proposed project includes the following offsite infrastructure improvements.

- Removal of the sewer main on the project site and relocation to Convention Way (approximately 550 linear feet of new 12-inch sewer pipeline)
- Upgrade of the existing 10-inch sewer pipeline within Convention Way to a 12-inch main pipeline all the way to West Harbor Drive (approximately 1,500 linear feet)
- Relocation of a portion of the storm drain from the project site to Marina Park Way (approximately 250 linear feet)
- Upsizing of the existing 15-inch West Harbor Drive trunk sewer at the intersection of West Harbor Drive and Park Boulevard to a 30-inch sewer main is planned to be completed by the Ballpark Village project. However, in the event that this is not completed prior to the occupancy of the hotels, the proposed project would be required to complete the upsize.
- The existing electrical circuit on Convention Way does not have sufficient capacity; therefore, the proposed project would be required to tie into the Sampson Street Substation for electrical power. This would require trenching from the project site, out along Convention Way to Harbor Drive, and along Harbor Drive to the Sampson Street Substation, for a total trenching distance of approximately 1.4 miles. It may also be necessary to add a new switch and/or transformer at the Sampson Street Substation to accommodate the proposed project's energy demand.

3.4.12.3 Projected Workforce

The proposed project would result in the employment of approximately 610 total permanent individuals. The market-rate hotel tower would be a full-service hotel with a high employee to guest and guest room ratio. It is estimated to provide approximately 600 jobs, including maintenance staff, hotel management, facilities, and cleaning crews. The lower-cost, visitor-serving hotel is estimated to provide approximately nine jobs and the marina will continue to provide one job.

3.5 Project Review and Approvals

The District is the lead agency under CEQA and responsible for permitting and carrying out the proposed project. The following permits and approvals would be required to implement the proposed project.

3.5.1 San Diego Unified Port District

- Certification of the 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 the PMPA.
- Concept approval of the proposed project.
- Approval of new lease agreements.
- Authorization for issuance of a coastal development permit.
- Amendment to the Management Agreement for the Pedestrian Bridge and, if they become available in the future, use of the 110 parking spaces located within the SDCC.

3.5.2 Coastal Commission

- Certification of, and final action on, the PMPA.

3.5.3 Resource Agencies

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

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

3.5.4 City of San Diego

- Amendment of the existing Management Agreement for the optional pedestrian bridge and, if they become available in the future, use of the 110 parking spaces located within the SDCC.
- Issuance of ministerial permits (e.g., grading, building, electrical).

Introduction

Sections 4.1 through 4.14 of Chapter 4 of this Draft EIR contain a discussion of the potential significant environmental effects resulting from implementation of the proposed project, including information related to existing site conditions, 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
- 4.5, Geology and Soils
- 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, Public Services and Recreation
- 4.12, Transportation, Circulation, and Parking
- 4.13, Tribal Cultural Resources
- 4.14, Utilities and Energy Use

It was determined in the Notice of Preparation (NOP) (Appendix A) that the proposed project would have no impact associated with the following topics: Agriculture and Forestry Resources; Mineral Resources; and Population and Housing. 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 subsection briefly describes the criteria considered in the particular resource section, summarizes the resources used to compile the information presented for the environmental analysis, and also 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. Compliance with these applicable laws and regulations is mandatory unless noted otherwise within the analysis. Therefore, as it relates to the Project Impact Analysis below, compliance is assumed 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, 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, 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.

Section 4.1

Aesthetics and Visual Resources

4.1.1 Overview

This section describes the existing aesthetic and visual conditions that could be adversely affected by the proposed project, 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: Visual Impacts due to Obstructed Views Within a Vista Area During Project Construction	MM-AES-1: Construction Screening and Fencing	Significant and unavoidable	MM-AES-1 would reduce impacts on existing views associated with construction activities, but views of the construction site would still be available from the elevated viewshed of the SDCC's rooftop plaza. Impacts, although temporary during the construction phase, would remain significant and unavoidable.
Impact-AES-2: Visual Impacts due to Obstructed Views Within a Vista Area During Project Operations	MM-AES-2: Install Wayfinding and Public Accessibility Signage MM-AES-3: Transparent Fencing Materials at Pool Deck	Significant and unavoidable	The introduction of a high-rise market-rate hotel tower within the viewshed of vista areas at the SDCC's existing plaza and grand staircase would block or substantially obstruct existing expansive and uninterrupted views of the San Diego Bay, including views of the San Diego-Coronado Bay Bridge. Implementation of MM-AES-2 and MM-AES-3 would reduce impacts on the SDCC rooftop plaza, but not to less-than-significant levels. Impacts would remain significant and unavoidable.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-AES-3: Visual Impacts due to Displacement of Existing Designated Vista Areas During Project Operations	MM-AES-4: Designated Public Vista Areas	Less than significant	Implementation of MM-AES-4 would restore designated vista areas that would be displaced by the proposed project by locating four vista areas along the public observation terrace on the rooftop public plaza and park areas and a fifth on the west end of the market-rate hotel tower terrace.
Impact-AES-4: Temporary New Source of Nighttime Lighting During Construction	MM-AES-5: Down-shield All Construction Security Lighting	Less than significant	The use of down-shielded security lighting during construction would prevent any offsite light spillover consistent with the City of San Diego regulations on glare and outdoor lighting.
Impact-AES-5: New Permanent Source of Glare Generated by the Proposed Market-Rate Hotel Tower	MM-AES-6: Incorporate the Use of Reduced Glare Building Materials	Less than significant	The use of non-reflective building materials and low reflective glass would ensure that the proposed project would not create a new source of glare.

4.1.1.1 Concepts and Terminology

This section defines the key concepts and terminology used to describe existing aesthetic and visual quality conditions or to describe the change in existing conditions after implementation of the proposed project. 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, *Methodology*.
- *Viewshed* is 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 Port Master Plan (PMP) includes another term, *Vista Areas*, which are “points of natural visual beauty, photo vantage points, and other panoramas” (San Diego Unified Port District 2012:28).

4.1.2 Existing Conditions

The project site is located in the District's jurisdiction and is within the urban setting of downtown San Diego (see Figure 2-2). The majority of the landside portion of the project site is currently occupied by two parking lots totaling 2.75 acres and approximately 300 parking spaces, and the visual character of the project site is consistent with that use, i.e., a large, asphalt-covered rectangular surface with parking stalls delineated by white paint. The parking lots contain minimal landscaping in the form of small, peripheral, ornamental trees. The eastern portion of the project site includes an approximately 30,000-square-foot publicly accessible park/plaza, which consists only of a flat, grassy lawn bordered by small ornamental trees and plants. The southern portion of the project site contains the 35-foot-wide Embarcadero Promenade, which includes a wide, white concrete path punctuated by white, modern-style lampposts and blue benches as well as a white fence abutting the water's edge.

The project site contains several small structures, including a small public restroom and a water transportation center/ticket booth, which are adjacent to the park/plaza in the eastern portion of the project site, and a portable trailer building in the northwestern portion of the parking lot. The public restroom is a short, single-story building that is no more than 1,300 square feet in size. The building contains beige brick siding with brown trim and a tiled roof. The ticket booth consists of a very small, white kiosk out of which ticket sales are conducted. The waterside portion of the project site comprises a marina that contains 12 slips for large vessels (i.e., superyachts), as well as a water transportation ferry service and occasional water taxi service. The remainder of the waterside portion of the project site contains open water.

The visual character of the area surrounding the project site is defined primarily by high-intensity visitor/destination uses, including the modern structures of the San Diego Convention Center (SDCC) and high-rise hotels—the Hilton San Diego Bayfront to the east (1,200 rooms, 30-story tower), and the Marriott Marquis San Diego Marina (1,355 rooms, 25-story tower) and the Manchester Grand Hyatt (1,625 rooms, two 40-story towers) to the west. These hotels each exceed 25 stories in height and each contain over 1,000 hotel rooms as well as meeting spaces and other amenities (these hotels are visible in existing background views from the KOPs shown in Figures 4.1-3 through 4.1-6, below). High-rise residential uses are also present in the area surrounding the project site, such as the two towers of the Harbor Club Condominiums to the north.

The area also includes the Embarcadero Marina Park, which is a 22-acre public park divided into two segments—Embarcadero Marina Park North (EMPN) and Embarcadero Marina Park South (EMPS)—that are located on L-shaped segments of land extending into the Bay. EMPN extends off Seaport Village, which is to the northwest of the project site, and EMPS is located to the west of the project site and extends directly from the central staircase that divides the two main wings of the SDCC structure. The parks include passive use amenities such as pedestrian pathways, bayfront promenades, green lawns, benches, and shade trees. EMPS also includes basketball courts and, during the summer, a temporary stage is set up for the San Diego Symphony Summer Pops concerts on the green grass in the western portion of the park. The parks provide parking in large surface lots. In addition, the Marriott Marquis San Diego Marina maintains a 450-slip marina that is partially enclosed by the two L-shaped segments that form the Embarcadero Marina Parks. The visual character of this large marina, which accommodates boats ranging in size from 25 to 125 feet in length, is typical of a small boat marina and generally consists of a high concentration of regularly spaced (and usually white) boats that vary in size and shape and is topped by a cluster of masts.

4.1.2.1 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 the San Diego Bay and other visible Port features. 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 the arrangement of development on those sites to preserve and enhance such vista points” (San Diego Unified Port District 2012:28).

The PMP identifies several designated vista areas at and in the vicinity of the project site (see Figure 4.1-1). Planning District 3 (Centre City Embarcadero), in which the project site is located, designates five vista areas at the project site at the location of a planned 5-acre rooftop plaza and park area, which is intended by the PMP to be implemented with development at the project site. Three of these vista points look south from the planned rooftop plaza and park areas and provide views of EMPS, the San Diego Bay, and Coronado. One of these vista points looks southeast toward the Coronado Bay Bridge, and the last designated vista point from the rooftop plaza and park areas looks northwest in the direction of EMPN and the San Diego Bay.

There is also one vista area designated along the pier in the Bayfront Park, which is to the southeast of the project site. The vista area is oriented southward to the Bay and while views of the project site may be available from the pier, the vista area is not oriented toward the project site. While the pier is not currently publicly accessible, the PMP requires the pier to be open to the public as part of the

Hilton San Diego Bayfront's 500-room expansion project. The last vista area within Planning District 3 is located along the Embarcadero Promenade to the west of the project site between the SDCC and the Marriott Marquis San Diego Marina, looking south toward Coronado, and the project site is not within the viewshed of this vista area.

In addition, three vista areas are identified in the nearby Planning District 6 (Coronado Bayfront), directly across the San Diego Bay (a little over 0.6 mile away) from the project site along the Coronado bayfront between Orange and B avenues. These vistas are oriented toward the project site, but because the project site currently contains a parking lot with no substantial structures, views of the project site from these vista areas are obscured by the trees within EMPS. However, the SDCC, specifically the Sails Pavilion, features prominently within the middleground views of these vista areas. Several views from Planning Districts 3 and 6 were considered as candidate KOPs, and five KOPs were carried forward for the analysis. (See the discussion of KOPs under Section 4.1.4.1, *Methodology*.)

4.1.2.2 Scenic Highways

State Route (SR)-75 is a California State-designated scenic highway as it crosses the San Diego–Coronado Bay Bridge (Caltrans 2011). Views from the 200-foot-tall bridge are expansive in all directions. However, the bridge is only open to motor vehicles, there are no pullouts for viewing, and stopping on the bridge is prohibited by law. Also, the bridge has a speed limit of 50 miles per hour and a concrete guardrail that limits the view in lower profile vehicles. The project site is approximately 1 mile from the bridge, and views of the project area for motorists traveling in mid- and high-profile vehicles are available along some of its expanse; however, the project site itself is not a discernible feature in the midst of the Embarcadero Marina Park, the large vessels at the Fifth Avenue Landing marina, and the SDCC. Again, the bright white pointed peaks of the SDCC's Sails Pavilion are a prominently visible feature from this scenic highway.

4.1.2.3 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 rights-of-way, and downtown/bayfront tourists and recreationists,¹ such as the Embarcadero Promenade and park users and boaters in the bay. Recreational land uses and public roadways and rights-of-way 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 within vicinity of the project site include the Embarcadero Promenade, the Bayfront Park (adjacent to the Hilton San Diego Bayfront), EMPS, and EMPN. The Embarcadero Promenade spans the entire length of the southern portion of the project site and is a

¹ The term *recreationist* is used to distinguish the sub-group of viewers who are organizing 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 an 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.

portion of the 6-mile-long Embarcadero Promenade along the San Diego Bay that extends from just south of the project site from Bayfront Park north to the Spanish Landing Park, adjacent to the San Diego International Airport. The project site is fully visible along the approximately 760-foot-long portion of Embarcadero Promenade that is within the project site boundaries; however, because of intervening landscaping and other structures, the project site is partially visible along other portions of the Embarcadero Promenade. (See the discussion of KOPs under Section 4.1.4.1, *Methodology*.)

EMPS, directly south of the project site, is a public park with a bayfront promenade encircling the entire park. Views of the project site are available from the entrance of the park and from the portion of the promenade that runs the length of the northeastern edge of the park. However, views of the project site from other areas of EMPS are obscured by mature trees and other intervening elements, including a few low-profile buildings.

Farther west of the project site and northwest of EMPS is EMPN. EMPN is a park with a bayfront promenade that meanders across the park. However, because of the project site's orientation and existing intervening elements, such as docked boats at the Marriott Marquis San Diego Marina, and mature trees, views of the project site are completely blocked from most EMPN locations.

Moreover, recreational boaters have visual access to the project site. Passersby may take in views of downtown with the project site prominently situated at the waterfront. However, given that the project site is situated behind EMPS, views of the project site from boaters in the Bay would be partially obscured by the trees and other intervening elements that exist in the park.

Public Roadways and Rights-of-Way

Convention Way runs north of and provides the primary access to the project site via Park Boulevard, which connects to East Harbor Drive. The project site is fully visible from Convention Way and views consist of the existing parking lot. Marina Park Way provides access to EMPS and is adjacent to the west of the project site, where it intersects with Convention Way. The project site is visible along the northern end of the road and views consist of the existing parking lot. Park Boulevard is a designated view corridor in the San Diego Downtown Community Plan; however, this Community Plan is inapplicable within the District's jurisdiction and the project site is to the west of and not within this view corridor.

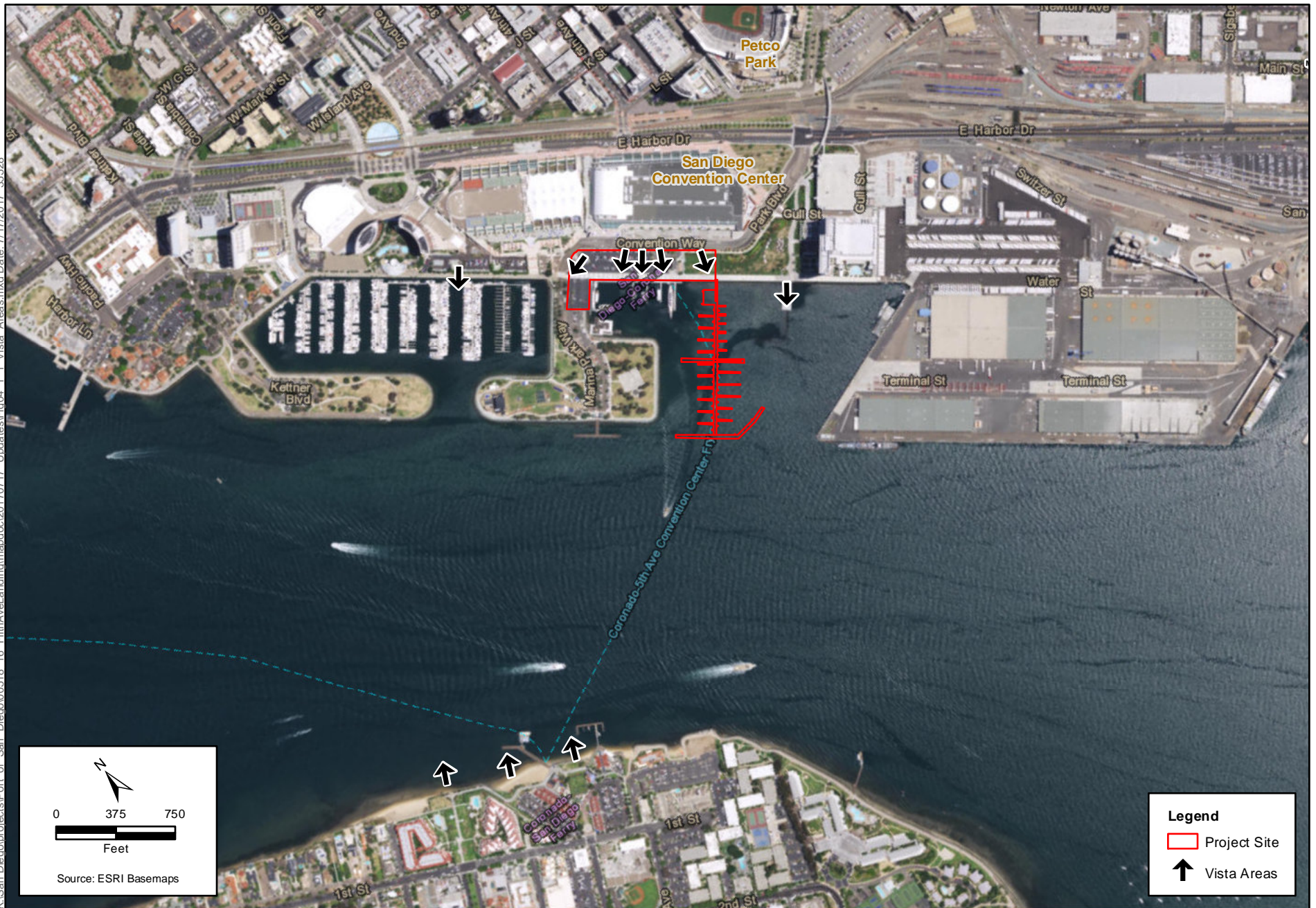


Figure 4.1-1
Port Master Plan Vista Areas Location Map
Fifth Avenue Landing Project

4.1.2.4 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 can 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.

On Site

Light

The project site currently contains peripheral lighting around the parking lot and along the sidewalks and promenade. Some lighting is evident from the vessels docked at the large vessel marina, as well.

Glare

Existing sources of daytime glare on the project site include sunlight reflecting off parked cars or bidirectional transitory glare from cars and delivery trucks driving along Convention Way. Because the project site does not contain structures with reflective architectural finishes, the overall daytime glare environment is considered low.

Off Site

Light

As described in Chapter 3, *Project Description*, the area surrounding the project site is highly urbanized and supports a mixture of commercial, industrial, recreational, residential, civic, and marine-related uses. The nighttime lighting environment surrounding the project site consists mainly of ambient light produced by recreational facilities, the existing Hilton San Diego Bayfront, Petco Park, the SDCC, interior and exterior building lighting (residential, office, commercial), highly ordered/structured lighting from streetlights, and transitory lighting from vehicle and transit-related (i.e., buses and trolley) headlights.

The Tenth Avenue Marine Terminal, located to the east of the project site, adjacent to the Hilton San Diego Bayfront Hotel, represents the most significant source of nighttime lighting in the project area and includes boom lighting and mast lighting for security and operational activities as well as floodlights on the bottom of crane booms and the sides of crane structures for illumination during nighttime loading and off-loading of vessels, barges, and containers. The marine terminal is a substantial contributor to nighttime lighting conditions in the project area.

Aside from the industrial operations at the Tenth Avenue Marine Terminal, Petco Park, north of the project site, is a major contributor to nighttime lighting during the baseball season (normal stadium

lighting and fireworks displays) and commercial developments, such as large-scale hotel developments and SDCC, contribute to ambient lighting conditions. Exterior security lighting and interior operational lighting at these hotels cause light spillover, which illuminates the area surrounding the project site.

Finally, nighttime lighting from vehicle and transit-related (i.e., bus and trolley) headlights and recreational boating uses near the project site contribute transitory lighting to the area. Overall, because the area is highly urbanized, existing ambient lighting levels are considered to be high.

Glare

Offsite glare conditions are generally moderate in the area surrounding the project site. The most noticeable sources of glare are the numerous mid- and high-rise commercial developments to the north, west, and east, including the SDCC, the existing Hilton San Diego Bayfront Hotel, and the Marriott Marquis San Diego Marina. Glare occurs as a result of light reflecting off the architectural finishes of buildings, and glare conditions are most severe when light reflects off glass surfaces. Most of these high-rise buildings have highly finished surfaces, including window and glass façades, which results in noticeable amounts of daytime glare.

A second primary source of daytime glare in the surrounding area is sunlight reflecting off the open waters of the bay, which abuts the project site to the south. 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; and sunlight reflecting off vehicles and delivery trucks traveling along Convention Way, and other surrounding roadways, which also produces minor amounts of transitory glare. Overall, existing daytime glare conditions surrounding the project site are considered to be moderate.

4.1.3 Applicable Laws and Regulations

4.1.3.1 State

California Scenic Highway Program

The California Department of Transportation (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 that are eligible for designation as scenic highways or that have been 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 Section 30715 of the CCA, the project is an "appealable development" and

must be consistent with the Chapter 3 policies of the CCA. Chapter 3 includes policies 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

Section IV of the PMP provides specific guidance for land development within ten geographic planning districts. These ten 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, above, the project site is located within Planning District 3, Centre City Embarcadero. The PMP identifies 17 vista areas within Planning District 3, five of which are located at the project site.

South Embarcadero Urban Design and Signage Guidelines

The South Embarcadero Urban Design and Signage Guidelines were adopted in 1999, and amended in 2002, to establish a specific identity for the South Embarcadero area while enhancing the visitor’s experience of the Bay. The guidelines established four zones to create a unified design character for the area with an overall landscape theme, wayfinding signage program, and minimum design standards for site elements in order to distinguish the South Embarcadero area from other adjacent

neighborhoods and districts. Zone #1, the Park Boulevard View Corridor, establishes a vision to provide visual and physical connections to the waterfront from the downtown Ballpark District along with vegetation, lighting, and unique paving to encourage pedestrian and bicycle safety. The role of Zone #2, the 8th Avenue/Convention Way Streetscape, is to create opportunities for pedestrian connections between the Embarcadero Promenade, future waterfront development, and the ferry terminal. Zone #3, Park/Beach, includes two options for recreation opportunities at the project site, including Option A, a park, or Option B, a beach along the bayfront. Zone #4, Public Promenade, calls for a 35-foot-wide promenade connecting to other waterfront areas.

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 objectively identify the visual features of the area, their importance, and the sensitivity of the associated viewers. 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 KOPs of the proposed project 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 3-2 through 3-18). 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 views from private property are not considered a protected resource by the District.

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 a public that has 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 to 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 that were 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

Six candidate KOPs were identified for consideration in the impact analysis at public vantage points throughout the Port and downtown San Diego. 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, and/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 along the Embarcadero Promenade north of the project site. This KOP was eliminated from further consideration for several reasons, including visual obstructions from the KOP (e.g., flat terrain, vegetation, and buildings blocking the view), lack of project features that would be visible, and redundancies with other chosen KOPs. The five KOPs carried forward were chosen as representing a cross-section of scenic quality, viewer types, and viewer sensitivities. These are representative of the existing viewsheds described below, and 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, above) 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.

Coronado Bayfront Viewshed (KOP 1)

KOP 1 is representative of the three PMP-designated vista areas along Coronado's northern shore and is located at Centennial Park in Coronado, approximately 0.6 mile west of the project site across the San Diego Bay. Centennial Park is a bayfront park along the northern shore of Coronado at the bayside terminus of Orange Avenue. Orange Avenue is Coronado's "main street," and a continuous

grassy median spans the entire length of Orange Avenue from the southern end (at the oceanfront) to the northern end (at the bayfront). Centennial Park comprises a green lawn with a gazebo, benches, and walking paths that allow waterfront access from the intersection of Orange Avenue and 1st Street. The walking path is oriented north-south through the park and then extends in an east-west direction along the waterfront, providing access to the ferry landing and small waterfront beaches. Hotels, restaurants, and other visitor-serving uses are adjacent to the park.

Because the project site comprises a visually diminutive parking lot and does not feature any prominent buildings, existing views of the project site are not visible from this vantage point because they are blocked by intervening landscaping present at EMPS (see Figure 4.1-3). Typical views from KOP 1 include the waters of the Bay in the foreground, the riprapped shoreline and trees of EMPS as well as the arched glass upper stories and distinctive white canvas peaks of the Sails Pavilion of the SDCC in the middleground views, and downtown San Diego, including high-rise buildings and the distinctive round shape and exposed steel buttressing of the upper stories of the Petco Park, in the background. Obscured views of mountains are available in the distance.

Visual quality from KOP 1 is considered to be high. KOP 1 is in a recreational area that offers benches and walking paths where visitors experience expansive and prolonged views of the Bay and the high-rise structures of downtown San Diego, both of which are generally considered visually interesting views. Because visual quality from KOP 1 is considered to be high and is accessible to a large number of visitors, viewer sensitivity is also considered to be high.

San Diego Convention Center Plaza Viewshed (KOP 2)

The SDCC's plaza is on the southern side of the SDCC, adjacent to Convention Way, on the upper level and comprises a large, open concrete patio with tables and displays about San Diego's history. The plaza can be accessed by the public through outdoor stairways on both the northern and southern sides of the SDCC. KOP 2 is situated along the railing of the plaza facing southward toward the project site, to which it is immediately adjacent. This KOP is not located at a PMP-designated vista area, but it represents the types of views that would be available from the five planned vista areas identified at the project site in the PMP.

The project site is fully visible from this KOP. As shown in Figure 4.1-4, typical views from KOP 2 include: the concrete paved parking lot of the project site; the wide sidewalk of the Embarcadero Promenade; large vessels, primarily yachts and sailboats in the marina; the trees and green lawn of EMPS; the waters of the Bay, often including passing ships of various sizes (including sail boats, cruise ships, barges, military vessels, and other vessels); and structures along Coronado's bayfront, ranging from smaller, single-family homes to multi-story condominiums or hotels. EMPS is in the foreground, the Bay in the middle ground, and the northern shore of Coronado in the background. In the farther distance, views of the military base at North Island, Coronado and the vegetated hillsides of the Point Loma peninsula are available.



Figure 4.1-2
Key Observation Points Location Map
Fifth Avenue Landing Project



Visual quality from KOP 2 is considered to be high because it includes expansive, largely uninterrupted views of the Bay that span from North Island, Coronado to the San Diego-Coronado Bay Bridge. The only elements in the viewshed that partially obscure the views of open water are the trees at EMPS and masts of sail boats, which themselves are elements that contribute to the overall visual quality of KOP 2 because viewers would expect to see such elements along an active and tourist-oriented portion of the bayfront. In addition, KOP 2 is accessible to a large number of visitors, given its location at the SDCC and its accessibility to the public. This aspect adds to the sensitivity of views from KOP 2. Because the project site is highly visible and the overall visual quality of the views is high, viewer sensitivity from KOP 2 is considered to be high.

Embarcadero Marina Park South Viewshed (KOP 3)

EMPS is a recreational area adjacent to the project site to the south. Vehicle and pedestrian access to the park is achieved from Park Boulevard via Convention Way. The park includes two outdoor basketball courts, a large gazebo structure, grass areas, concrete walkways/bikeways, exercise stations, restrooms, a T-shaped boat dock/pier used for boating and fishing, a restaurant (Joe's Crab Shack), the Symphony's Summer Pops concert area, and parking areas. There are a variety of mature trees throughout the park, along the parking areas and the edge of the Bay. KOP 3 is situated at the northern edge of the park, facing northward toward the project site.

Views from KOP 3 primarily include foreground and middleground views and largely comprise the narrow inlet of the Bay that is between EMPS and the Embarcadero (see Figure 4.1-5). EMPS' riprapped shoreline and the waters of the Bay are visible in foreground views in the midst of the piers that extend into the inlet and house the ferry landing and a single-story Cape Cod-style restaurant. The yachts and sailboats at the large vessel marina at the project site feature prominently in the middleground views. Middleground views also include views of the concrete sides of the lower levels of the SDCC as well as the arched glass rooftop and Sails Pavilion of the upper levels of the SDCC. A few tall towers of high-rise buildings are visible in the background. Looking to the southeast in the direction of the portion of the project site that would contain the marina expansion, foreground views are dominated by the open waters of the Bay. Middleground views comprise the Hilton San Diego Bayfront Hotel as well as the components of the Tenth Avenue Marine Terminal, including the transit sheds, warehouses, the conveyer system, the bulk unloader, and shipping barges when those vessels are docked at the terminal. Views of the San Diego-Coronado Bay Bridge are available in background views; however, these views are interrupted when shipping barges are docked at the marine terminal.

Visual quality from KOP 3 is considered to be moderate. This is a very narrow segment of the Bay, and while KOP 3 is within a recreation area that gets an abundant number of visitors, it only offers short-range views that are somewhat cluttered with features that lack coherence and unique elements, i.e., piers, the back of the SDCC, scattered towers from downtown's high-rise buildings, and the Tenth Avenue Marine Terminal. While some features of the viewshed may provide visual interest, i.e., the large yachts and sail boats moored at the marina, there are no benches in this part of the park like there are along the southern side of EMPS where expansive views of the Bay and Coronado are available and where visitors would be expected to stay for prolonged periods of time. Therefore, viewer sensitivity is considered to be moderate.



Figure 4.1-4
KOP 2, SDCC Rooftop Plaza, looking south (Existing, panoramic view)
Fifth Avenue Landing Project



Figure 4.1-5
KOP 3, Embarcadero Marina Park South (Existing)
Fifth Avenue Landing Project

Embarcadero Promenade Viewshed (KOP 4)

KOP 4 is near the southeast corner of the project site near the endpoint of the Embarcadero Promenade adjacent to the existing Bayfront Park next to the Hilton San Diego Bayfront Hotel (see Figure 4.1-6). Recreationists and tourists are the most frequent viewers at this location. The Embarcadero Promenade continues westbound through the middle of the project site. Access to the Embarcadero Promenade is available from Harbor Drive, Park Boulevard, and Convention Way. The promenade affords direct, unobstructed visual access to the easterly portions of the landside and waterside areas of the project site.

As shown in Figure 4.1-6, visual elements in the foreground include the wide sidewalks, white railings and lampposts, and benches of the promenade, the linear green lawn of the Bayfront Park and the existing 30,300-square-foot park/plaza at the project site, and the large vessel marina. The light posts and railings create a uniform and congruent pattern that draws the view toward the northwest. Foreground views also include open waters of the Bay at the waterside portion of the project site. Middleground views include the triangular buttressing and ribbed arches of the SDCC's glass rooftop. The dark, glossy curved facades of the Marriott Marquis San Diego Marina are prominently visible in the background views. In addition, the towers of the Manchester Grand Hyatt Hotel as well as the Pinnacle Museum Tower, a high-rise residential condominium building, are visible in the background. The differing architectural finishes of these buildings and their interspersed positioning detract from the uniformly geometric components of foreground and middleground views (such as the lampposts, railings, and the SDCC's buttresses and roof).

Views of the project site and surrounding area from the Embarcadero Promenade viewshed are considered to have moderate visual quality. As discussed above, the overall visual character of this viewshed includes a mix of park/plaza, promenade, large vessel berthing, and visitor-serving uses, which results in a somewhat incongruent pattern. The land uses lack a sense of unity and visual coherence due to the large gaps between the buildings and their varying heights, architectural finishes, and color schemes. However, because the project site is highly visible from this KOP and its location is along a recreational resource intended to provide public access to and enjoyment of the waterfront, viewer sensitivity within the Embarcadero Promenade viewshed is considered to be high.

Convention Center Grand Staircase (KOP 5)

KOP 5 is approximately 300 feet west of the project site at the top of a large staircase known as the grand staircase at the SDCC, which is situated along the bayside of the SDCC. Views from KOP 5 are mostly oriented to the south; however, portions of the project site are visible from KOP 5 when looking southeast, specifically the parking lot that is south of the Embarcadero Promenade.

Southerly views from KOP 5 largely comprise the marina of the Marriott Marquis San Diego Marina Hotel and associated visual elements such as small- to medium-sized boats and concentrated collection of masts at the marina in the foreground, the green lawns and trees of EMPS in the middle ground, and the open waters of the San Diego Bay in the background. Intermittent views of the structures and trees along Coronado's northern bayfront are also visible beyond the Bay.



Visual quality from KOP 5 is considered to be high because, like KOP 2, it includes expansive views of the Bay that span from North Island, Coronado to the San Diego-Coronado Bay Bridge (Figure 4.1-7). However, views from KOP 5 are obscured by some intervening elements, such as the trees at EMPS and masts of sailboats, which themselves are elements that contribute to the overall visual quality of KOP 5 because viewers would expect to see such elements along an active and tourist-oriented portion of the bayfront. In addition, KOP 5 is accessible to a large number of visitors, given its location at the SDCC and its accessibility to the public. This aspect adds to the sensitivity of views from KOP 5. Because the project site is highly visible and the overall visual quality of the views is high, viewer sensitivity from KOP 5 is considered to be high.

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 quality resulting from the proposed project. The determination of whether an aesthetics and visual quality 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 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 designated by the District 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. Substantially degrade the existing visual character or quality of the site and its surroundings.
4. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

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 designated by the District in the PMP.

Impact Discussion

There are three designated vista areas oriented toward the project site from across the Bay within Planning District 6 (Coronado Bayfront), and five vista areas at the project site that are oriented toward the Bay as part of the planned rooftop plaza and park areas of the proposed Convention Center Expansion Phase III in the PMP. These vista areas have the potential to be affected by implementation of the proposed project. Existing views of the project site from these vista areas are represented by KOP 1 and KOP 2. In addition, KOP 3, KOP 4, and KOP 5 represent views of the project site with moderate to high viewer sensitivity in the project area. Existing views from the five KOPs are provided in Figures 4.1-3 through 4.1-7.



Figure 4.1-7
KOP 5, SDCC Grand Staircase, looking east (Existing, panoramic view)
Fifth Avenue Landing Project

Construction

Construction of the landside portion of the proposed project would require demolition and grading for site preparation, construction cranes for installation of the market-rate hotel tower, and the use of standard construction equipment, such as earth-moving equipment, concrete trucks, forklifts, and pile drivers. Construction of the waterside portion of the project would also require two barges during installation of the expanded marina. Construction activities would be visible from designated vista areas, including the three vista areas in Coronado and the five vista areas from the rooftop plaza and park areas.

In addition, during the construction period, staging would move off site to the R.E. Staite property at 2145 East Belt Street, San Diego, approximately 2.2 miles south of the project site. Furthermore, parking for construction workers would be located at this site. The R.E. Staite property is an existing construction staging area for the company's existing operations and is located within the industrial portion of the District's tidelands. Staging equipment and worker vehicles at this site would not change the existing aesthetics of this area and would not result in a significant impact.

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 the Bay with views of the SDCC in the middleground and downtown San Diego in the background. Given the distance of the project site from KOP 1, the general presence of ongoing construction in the downtown area, and the containment of construction equipment on the site, there would not be a significant impact. The direct open-water views of the Bay would be unaffected, and the scenic views of the downtown San Diego skyline would remain intact regardless of construction activities. Although cranes and other construction equipment would protrude into the skyline during portions of construction activities, their placement would change frequently on the site. One electric tower crane (approximately 548 feet high) would be used for approximately 24 to 30 months to construct the market-rate hotel tower, and another electric tower crane would be used for approximately 7 months to construct the low-cost visitor-serving hotel. In addition, construction of the proposed marina expansion would not be visible from KOP 1. Views of this project element would be blocked by EMPS. Finally, construction associated with offsite utility improvements, which would require replacement of utilities located within the project site to Convention Way, would also not be visible from this KOP. As such, impacts on the KOP 1 vista area would be less than significant.

KOP 2

Existing views from KOP 2 consist of the project site in the foreground and expansive views of the Bay and of Coronado in the middleground and background. The temporary use of large construction equipment and construction-related activity at the project site would dominate the viewshed of KOP 2 for a period of 24 to 30 months. Construction activities would introduce an electric tower crane (approximately 548 feet high) that would increase in height for approximately 24 to 30 months during the construction of the proposed market-rate hotel tower and another electric tower crane for approximately 7 months during the construction of the lower-cost visitor-serving hotel. In addition, man-lifts, scaffolding, and the steel framing of the two hotels and the other landside project elements would be visible during construction immediately in front of KOP 2. Given the short distance between KOP 2 and the project site as well as the intensity of construction activities (i.e., construction of more than 900,000 square feet of new building area on a site that currently contains

parking lots), the presence of construction activities within the viewshed of KOP 2 would substantially interfere with, if not entirely block, the existing views of the Bay and Coronado for most of the duration of the construction period. Therefore, construction activities associated with the proposed project, including construction activities associated with replacement of utilities from the project site to Convention Way, would result in significant temporary impacts on vista areas from KOP 2 (**Impact-AES-1**). Implementation of **MM-AES-1** would be required.

Expansion of the marina would require construction equipment of a smaller scale than that required for the proposed buildings, and Phase I of the marina expansion would take approximately 6 to 9 months. It is assumed that Phase II of the marina expansion would be constructed at a separate time, approximately 5 years after the Phase I marina expansion and market-rate hotel is completed. Similar to Phase I, Phase II of the marina expansion would also take approximately 6 to 9 months to construct. Construction of this project element, including the placement of relatively flat barges within the viewshed, may occasionally interfere with views to the south/southwest from KOP 2, which include views of the Bay and the San Diego-Coronado Bay Bridge in the background. However, given the elevated height of KOP 2, construction of this project component would not substantially impede nor permanently affect existing views from KOP 2. Impacts related to construction of the marina would be less than significant on KOP 2.

KOP 3

Views from KOP 3 consist of a segment of open water of the Bay, an inlet with a marina, small piers, and a restaurant, the western façade of the SDCC, and a smattering of high-rise towers in the background. Views from KOP 3 are not expansive, and visual quality and viewer sensitivity are considered moderate. Construction fencing and equipment would dominate middleground views from KOP 3 for approximately 2 to 2.5 years and would block views of the SDCC. However, foreground views of the inlet and the vessels at the marina would remain intact during construction, and impacts on KOP 3 would be less than significant.

Expansion of the marina would require construction equipment of a smaller scale than that required for the proposed buildings, and Phase I of the marina expansion would take approximately 6 to 9 months. It is assumed that Phase II of the marina expansion would be constructed at a separate time, approximately 5 years after the Phase I marina expansion and market-rate hotel is completed. Similar to Phase I, Phase II of the marina expansion would also take approximately 6 to 9 months to construct. Construction of this project element would involve the use of two relatively flat barges that would temporarily interfere with southerly views from KOP 3, which include views of the San Diego-Coronado Bay Bridge. However, KOP 3 is not a designated vista and has moderate viewer sensitivity, and the presence of construction activity and barges within the viewshed would not result in a substantial effect on a scenic vista. Impacts would be less than significant.

KOP 4

KOP 4 is located along the Embarcadero Promenade just south of the project site, and existing views consist of the green lawns of the park adjacent to the Hilton San Diego Bayfront Hotel and the wide, white sidewalks of the promenade, the geometric elements of the SDCC, the existing marina, and the riprap, lawn, and trees of EMPS. Similar to KOP 3, construction activities at the project site would feature prominently within this viewshed and would dominate foreground and middleground views. Again, given the proximity of the project site to KOP 4, construction equipment used to construct the lower-cost visitor-serving hotel and other project elements along the eastern side of the project site,

including any replacement of offsite utilities, would substantially interfere with existing views of the green lawn portion of the project site as well as existing views of the SDCC. However, users of the Embarcadero Promenade would likely be more sensitive to views of the Bay, and the presence of construction equipment where a parking lot was located would not result in an adverse impact on this KOP. In addition, construction of the market-rate hotel tower would generally not interfere with existing views from KOP 4. Again, while existing views of the waterside portion of the project site include open water in the foreground with EMPS in the background, construction of the proposed marina would involve less intensive construction activity and would not interfere with any significant views from KOP 4. Impacts on KOP 4 would be less than significant.

KOP 5

The temporary use of large construction equipment, such as cranes, and construction-related activity at the project site would be located to the south of the vista area at the top of the SDCC's grand staircase. While construction activities at the project site would be visible from KOP 5, given the distance of this KOP from the project site and its setback position, views of the construction equipment, including that used for relocation of utilities, would be obscured by intervening elements, such as trees, and would not dominate the viewshed from this KOP. Foreground and middleground views include views of the marina of the Marriott Marquis San Diego Marina and EMPS. These views would not be substantially affected by the presence of construction equipment at the project site, which is situated to the south/southwest of KOP 5. Background views of the San Diego-Coronado Bay Bridge would be blocked, but expansive views of the Bay and Coronado would still be available when looking west. Impacts would be less than significant.

Operation

Completion of the proposed project would result in the addition of a new 44-story, 498-foot-tall, high-rise market-rate hotel tower along the bayfront of San Diego's downtown, as well as new public plaza and park areas and terraces, an adjacent five-story, lower-cost visitor-serving hotel, and expansion of the existing marina. Relocation of existing utilities from the project site to Convention Way as well as upgrades to existing utilities within Convention Way would occur during construction activities. Once in place, these below-ground improvements would not be visible, and, therefore, are not analyzed under operational conditions.

KOP 1

KOP 1 is located at Centennial Park in Coronado, approximately 0.6 mile west of the project site across the San Diego Bay, and existing views include expansive foreground views of the Bay with views of the SDCC in the middleground and downtown San Diego in the background. From the vantage point of KOP 1, the market-rate hotel tower would become one of the most visually prominent elements of the downtown San Diego skyline (see Figure 4.1-8). Within the KOP 1 viewshed, the proposed building would be comparable in height and massing to the Hilton San Diego Bayfront Hotel, the Manchester Grand Hyatt, and the two towers of the Harbor Club Condominiums. In general, the proposed market-rate hotel tower would blend with and become part of the skyline views of downtown San Diego that are visible from KOP 1 and would not detract from the scenic vista, interfere with the open-water views of the Bay, or block any unique visual elements within the viewshed. In addition, the other elements of the proposed project, including the five-story lower-cost visitor-serving hotel and the marina expansion, would not be prominently

visible from KOP 1, would be obscured by trees at EMPS, and would blend in with the overall structure of the SDCC. Therefore, impacts on scenic vistas from KOP 1 would be less than significant.

KOP 2

KOP 2 is located at the existing plaza on the second story of the SDCC, approximately 60 feet north of the project site. KOP 2 is representative of the five designated vista areas for the planned rooftop plaza and park areas that are included in the PMP. While the PMP-planned rooftop plaza and park areas have not yet been implemented, construction of the proposed project would not allow this improvement to occur and would result in the displacement of these vista areas.

Existing views from KOP 2 include uninterrupted panoramic views of the Bay and of Coronado that span from Point Loma in the northwest to the San Diego-Coronado Bay Bridge in the southwest. The addition of the market-rate hotel tower would introduce a substantial structure within this viewshed, which would interrupt the existing expansive views of the Bay and Coronado that are available from KOP 2 (see Figure 4.1-9). The market-rate hotel tower has been designed to accommodate existing viewsheds to the extent feasible, including provisions to place the tower to the west of the existing and proposed public plaza and park areas and increase the height of the tower in order to minimize its bulk (i.e., the tower has been designed to be tall and slender).

In addition, the proposed project would introduce up to 82,300 square feet of new public and park areas on the roof of the proposed parking structure and hotel ballrooms that would be at a similar height as KOP 2 and could restore views similar to those offered by KOP 2. The proposed rooftop public plaza and park areas would sit closer to the waterfront than KOP 2 and would be larger than the existing SDCC plaza where KOP 2 is located. As such, the proposed rooftop public plaza and park areas would replace some of the views of the Bay and Coronado that would be blocked by the market-rate hotel tower and would partially replace the designated vista areas from the PMP that would be displaced by the project. However, the proposed public plaza and park areas would be set back farther from the waterfront than the proposed tower, and, as such, the proposed market-rate hotel tower would still interfere with panoramic views of the Bay. In addition, both the existing SDCC plaza where KOP 2 is located and the planned rooftop public plaza and park areas are and would be open to the public. As identified in Table 3-2 and Figure 3-12 of Chapter 3, *Project Description*, the public park plaza and public observation terrace, public promenade, and public observation terrace viewing point would be available for public access at all times. However, the other areas (Areas A and B as depicted on Figure 3-12) would be restricted to the public at times for private events.

Based on the above, the proposed project would result in a significant impact on designated vistas (**Impact-AES-2** and **Impact-AES-3**). Implementation of mitigation measures to reduce potential impacts on designated viewsheds would be ensured under **MM-AES-2**, **MM-AES-3**, and **MM-AES-4**.

The expansion of the proposed marina would introduce an increased number of yachts and sailboats into the viewshed of KOP 2 and would replace existing open water area with marina uses. Sporadic views of the masts of these vessels would be visible in middleground views from KOP 2; however, given that the height of KOP 2 is above ground level, these features would not significantly interfere with long-distance southerly views of background features such as the San Diego-Coronado Bay Bridge. In addition, such vessels would be expected features within waterfront viewsheds. Impacts on KOP 2 associated with the proposed marina would be less than significant.





KOP 3

KOP 3 is at the northeastern corner of EMPS, approximately 0.10 mile from the project site, and includes north-facing views that include an inlet of the Bay, the existing large vessel marina, intermittent views of the promenade through the marina, and the southern façade of the SDCC (see Figure 4.1-5). Southeasterly views include the Bay in the foreground; the warehouses, terminals, conveyer systems, and large shipping vessels at the Tenth Avenue Marine Terminal in the middleground; and the San Diego-Coronado Bay Bridge in the background. Visual quality is considered moderate because, when considered together, the combination of these elements generally lacks a unified visual coherence, especially because the components of the viewshed are clustered together in a relatively compact area. Views are experienced largely by recreationists and tourists, and viewer sensitivity is also considered to be moderate.

Implementation of the proposed project would substantially modify views from KOP 3 (see Figure 4.1-10). Views of the narrow area of open water and large vessels docked at the marina would remain, as would intermittent views of the Embarcadero Promenade (e.g., railing, lampposts, benches, pedestrians). However, background views of cars parked at a parking lot and the loading docks and upper levels of the SDCC would be substantially modified and would be replaced by a visually prominent structure that would bring a more unified appearance to the project site than currently exists. In general, the proposed project would introduce greater intensity to the area, not only through the introduction of a new building that has substantially greater height and mass than what currently exists at the project site, but also through an increase in the number of users of the site. However, while the project would introduce visually prominent elements, it would not block views of any unique visual elements within the viewshed. In addition, regarding views to the southeast, the addition of an increased number of vessels would interrupt views of the San Diego-Coronado Bay Bridge, and, when fully occupied, vessels at the marina may block portions of the bridge. However, the San Diego Bay is an extremely busy bay within both water- and landside areas and the marina would be an expected feature to viewers in the area (and to many viewers, the vessels would constitute a unique visual element in their own right). In addition, as noted above, viewer sensitivity from this KOP is moderate and the addition of a marina within this viewshed would constitute a less-than-significant impact.



KOP 4

KOP 4 is located along the Embarcadero Promenade near the southeastern corner of the project site and the existing Bayfront Park at the Hilton San Diego Bayfront Hotel. Views from this KOP are experienced by recreationists and tourists. From KOP 4, visual quality is considered moderate and viewer sensitivity is considered high. The overall visual character of this viewshed is defined by the green lawns of the park that contrast with the wide, white sidewalks of the Embarcadero Promenade (see Figure 4.1-6). The yachts and sailboats of the marina feature prominently in the middleground views, as do the geometric elements of the SDCC's rooftop (e.g., arched glass and triangular buttressing). Background views include the sporadic appearance of the tall towers of nearby downtown buildings. The combination of these various elements results in a somewhat incongruent pattern of land uses.

Implementation of the proposed project would substantially alter views by adding visually prominent structures that would dominate northerly views within KOP 4 (see Figure 4.1-11). The segment of the green lawn now visible in the viewshed would remain, but middleground views of SDCC's triangular buttresses would be replaced with the proposed five-story, lower-cost visitor-serving hotel in foreground views. Views of the hotels in the background would be completely blocked and replaced with foreground and middleground views of the proposed lower-cost visitor-serving hotel. The high-rise market-rate hotel tower would add a visually prominent vertical element in mid- to background views within the long linear views down the length of the Embarcadero Promenade, but none of these project elements would block any unique visual elements within the viewshed. In addition, the large vessels at the marina would continue to feature prominently within northerly views, and vessels docked at the proposed expansion would also be visible in westerly views. The proposed marina would increase the number of masts and other elements associated with these vessels within middleground views, but similarly would not block any unique visual elements within this viewshed, which had moderate viewer sensitivity. Impacts would be less than significant.

KOP 5

Views from KOP 5 largely comprise the marina of the Marriott Marquis San Diego Marina Hotel and associated visual elements such as small- to medium-sized boats and the concentrated collection of masts in the foreground, the green lawns and trees of EMPS in the middleground, and the open waters of the San Diego Bay in the background. As shown on Figure 4.1-12, the proposed project would introduce a substantial new structure into the viewshed of KOP 5, which currently contains no prominent structures. Views from KOP 5 generally consist of low-rise features, such as open Bay, trees in EMPS, and sailboats and masts, that are all situated at a lower elevation than the viewshed. The only prominent structure within the viewshed is the San Diego-Coronado Bay Bridge, but its distance from KOP 5 is such that this structure is a low-rise feature, as well.



Figure 4.1-11
Rendering of Proposed Project from KOP 4
Fifth Avenue Landing Project



Because the proposed market-rate hotel tower would be so near KOP 5, its presence would dominate and substantially affect the open and panoramic nature of the existing viewshed. In addition, the proposed project would entirely block views of the San Diego-Coronado Bay Bridge, which is a feature that contributes to the viewer sensitivity of the viewshed. Views of the proposed market-rate hotel tower from KOP 5 would also include its broadest façade, which would result in a wider area of the viewshed being blocked. Viewers would be required to travel to other areas in the project vicinity to have the panoramic views restored. Therefore, the proposed project would result in a significant impact on a scenic vista (**Impact-AES-2**). Sensitivity to views has been taken into consideration during project design, including design of a slender tower, the use of transparent materials to the extent feasible, and the addition of publicly accessible areas, including plazas, parks, terraces, and walkways, to the project site. In addition, as required by **MM-AES-4**, the District would work to identify new vista areas within the project vicinity, which would direct viewers to areas where panoramic views of the Bay and surrounding features are intact.

Level of Significance Prior to Mitigation

Implementation of the proposed project would have a substantial adverse effect on a scenic vista, including but not limited to the vista areas designated by the District in the PMP. Potentially significant impact(s) include:

Construction

Impact-AES-1: Visual Impacts due to Obstructed Views Within a Vista Area During Project Construction. The protrusion of large construction equipment, including cranes, scaffolding, and other construction materials, into the viewshed of the SDCC rooftop plaza would result in a temporary significant impact.

Operation

Impact-AES-2: Visual Impacts due to Obstructed Views Within a Vista Area During Project Operations. Operation of the proposed project would substantially interfere with existing expansive views of the San Diego Bay from the existing SDCC plaza and the SDCC grand staircase.

Impact-AES-3: Visual Impacts due to Displacement of Existing Designated Vista Areas During Project Operations. Operation of the proposed project would displace five vista areas that are designated in the PMP at the planned rooftop plaza and park areas.

Mitigation Measures

Construction

For **Impact-AES-1**:

MM-AES-1: Construction Screening and Fencing. The project proponent shall install construction-screening fencing around the entire perimeter of the project site that would shield construction activities from sight and prior to issuance of demolition permits, the District's Development Services Department shall confirm such fencing is depicted on the appropriate demolition and construction plans. Construction screening shall include, at a minimum, installation of 8-foot-tall fencing for the duration of the construction period that is covered with

view-blocking materials, such as tarp or mesh in a color that blends in with the existing environment such as green or blue.

Operation

For **Impact-AES-2:**

MM-AES-2: Install Wayfinding and Public Accessibility Signage. Prior to the issuance of occupancy permits, the project proponent shall post wayfinding signage and signage at the grand staircase, market-rate hotel tower staircase, public observation terrace, optional pedestrian bridge, and two locations along the existing Embarcadero Promenade, that directs visitors to the proposed public plaza and park areas on the rooftop of the parking structure and hotel ballrooms as well as the walkway around the market-rate hotel tower (the areas identified as Exterior Areas B, C, and D on Figure 3-12 in Chapter 3, *Project Description*, of the EIR), and designates the areas as available to the public with open hours listed (i.e., 6:00 a.m. to 10:30 p.m.). The project proponent shall submit the signage characteristics (e.g., size, color, materials) to the District's Development Services Department for review and approval. Photographic proof of the wayfinding signage and designation signage shall be submitted to the District's Development Services Department prior to issuance of the certificate of occupancy. In addition, the project proponent shall allow the District to conduct periodic inspections to ensure that this space remains publicly accessible. The wayfinding signage shall clearly direct the public to the public plaza and park areas and public observation terrace and indicate that the space is open to the public except during certain circumstances consistent with the PMP Amendment.

MM-AES-3: Transparent Fencing Materials at Pool Deck. Prior to the issuance of the certification of occupancy for the market-rate hotel tower, the project proponent shall install transparent fencing in front of the pool to separate the pool deck from the public observation terrace viewing point on the second floor of the west side of the market-rate hotel tower, using transparent materials such as glass or cable rail. Prior to issuance of a building permit for the market-rate hotel tower, the District's Development Services Department shall confirm such transparent fencing is depicted on the appropriate building plans.

For **Impact-AES-3:**

MM-AES-4: Designated Public Vista Areas. To replace the five public vista areas currently designated on the project site and/or the SDCC Expansion Rooftop park, the PMP Amendment shall include five new public vista points as shown on Figure 3-19; four shall be located along the public observation terrace on the rooftop public plaza and park areas and the fifth shall be located on the west end of the market-rate hotel tower terrace (public observation terrace viewing point, Figure 3-12). These designated vista points shall be delineated with signage and open to the public at all times.

Level of Significance after Mitigation

Construction

MM-AES-1 would reduce impacts on existing views associated with construction activities, but views of the construction site would still be available from the elevated viewshed of the existing SDCC plaza. Impacts, although temporary during the construction phase, would remain significant and unavoidable.

Operation

Implementation of **MM-AES-2** and **MM-AES-3** would reduce impacts on the vista area at the SDCC plaza, but the proposed project would still result in substantial obstruction of existing panoramic views of the Bay (**Impact-AES-2**). In addition, there is no mitigation measure to minimize impacts on the panoramic views from the SDCC's grand staircase, and impacts on these vista areas would be significant and unavoidable.

MM-AES-4 would reduce the impacts related to displacement of the existing vistas (**Impact-AES-3**) to less-than-significant levels because, as shown on Figure 3-19, the project would locate four vista areas along the public observation terrace on the rooftop public plaza and park areas and a fifth on the west end of the market-rate hotel tower terrace, per **MM-AES-4**. As also depicted on Figure 3-19, the project would add three new scenic vista areas at the project site, beyond what is required by **MM-AES-4**, for a total of eight vista areas within the project site. Therefore, **MM-AES-4** would reduce **Impact-AES-3** to less-than-significant levels.

Threshold 2: Implementation of the proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Impact Discussion

The project area is within the viewshed of the San Diego-Coronado Bay Bridge (SR-75), which is a state scenic highway. The project site does not contain any historic resources; however, a structure that is adjacent to the project site, the building that currently houses Joe's Crab Shack, is considered a historic resource because of its historic association with the San Diego Rowing Club. This building is located on a pier that is south of the landside portion of the project site and west of the proposed marina expansion within the waterside portion of the project site. Given the diminutive size of Joe's Crab Shack, the project area's distance from SR-75, the speed at which motorists travel along that roadway, and the fact that stopping on the bridge is prohibited, this historic resource is not prominently visible from SR-75 and is not a contributing feature to the viewshed of the scenic highway. The proposed project would involve development of the project site with a new hotel complex featuring a 44-story market-rate hotel tower, a lower-cost visitor-serving hotel, public plaza and park areas, and a marina expansion. None of these activities would adversely affect the Joe's Crab Shack structure or setting such that this resource would be damaged (see Section 4.4, *Cultural Resources*, for more details on this historical resource). Implementation of the expanded marina would interfere with views of the portion of the project area where the historic resource is located; however, as noted above, the structure is not visible from SR-75 due to the circumstances described. Therefore, impacts on scenic resources within a state scenic highway would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 3: Implementation of the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings.

Impact Discussion

Construction

As described under Threshold 1 above, construction activities for the proposed project would be visually apparent from surrounding areas. Because of their size and configuration at the project site, the various construction equipment components and activities would be visible from the surrounding area. Construction activities would cause noticeable changes in the visual character of the project site. Construction of multi-story structures, such as the proposed market-rate hotel tower, would include the use of temporary tower cranes. However, because construction equipment and activities would largely be contained on the project site and construction activities would be temporary, no permanent alteration of the existing visual character or quality of the site or its surroundings would occur.

Overall, construction activities would add an industrial element to the project site, which is currently characterized by the existing parking lot, and would result in a temporary reduction in the overall visual quality on site and a temporary degradation of the existing visual character on site.

However, the areas surrounding the project site throughout the San Diego Bay are characterized by their presence within a densely developed waterfront downtown. Uses include commercial and industrial uses, including SDCC, the adjacent hotels, and the Tenth Avenue Marine Terminal. The SDCC and adjacent hotels exhibit a highly urbanized character given the massing and height of their towers. In addition, the nearby Tenth Avenue Marine Terminal, which is visible from the project site, exhibits the functional character of a marine terminal, including the permanent presence of bulk loading and unloading equipment associated with container ships or military ships. Cranes and other construction equipment are a common occurrence due to the frequency of construction activity that occurs in the downtown community, and short-term visual changes associated with construction activities are common in urban settings. In terms of the temporary visual impact on the surrounding land uses, the project site would constitute only a small portion of the overall downtown surroundings and the associated downtown skyline and, consequently, construction activities would not result in degradation of visual character of the site and surrounding area. Therefore, due to the temporary nature of construction activities, the urban and/or functional character of the surrounding land uses, and the common presence of construction equipment in the vicinity, impacts on the visual character of the surrounding area would be less than significant.

Operation

As depicted through the five KOPs and described in detail under Threshold 1, the project site and surrounding area are located within a densely developed urban waterfront environment that

includes a mix of commercial, recreational, tourist-oriented, industrial, and military uses. The visual character of the project area is defined by this highly diverse mix of uses, exhibiting a high degree of variation from one property to the next. The area includes dramatic changes in building heights and intensity of development as the waterfront uses alternate from landscaped parks to high-rise hotels with slender towers to the geometric forms of the low-rise buildings of the SDCC. Water-dependent uses also contribute to this diverse character as the project area includes views of, and is visible from, marine terminals and military sites that contain less congruent development—less orderly placement of buildings that vary in shape and height, massive ships docked alongside, etc. The project area also includes the uniform appearance associated with small- and large-vessel recreational marinas, which includes the regular spacing of a high concentration of boats topped by a forest of masts. The Bay itself is busy with a high level of boat traffic.

Implementation of the proposed project would introduce two new buildings that have substantially greater height and mass than the parking lot that currently exists at the project site, and the proposed project would become a highly visible element within the context of the dense urban waterfront environment. While it would be highly visible, the proposed development would be consistent with the character of the surrounding area. The proposed high-rise market-rate hotel tower would conform with the existing heights and massing of the immediately adjacent high-rise hotels and, from more distant views such as KOP 1, would blend in with the other tall buildings that compose the skyline of downtown San Diego. Building materials would involve the use of glass siding and steel framing for the high-rise market-rate hotel tower and natural stone, cement, and wood materials for the other project components. A planted façade wall (i.e., vines or planters) and a curated art, sculpture, or print installation would be used along the eastern façade of the parking structure. The color palette would include the clear or reflective nature of glazing, neutral colors associated with natural stone and wood, as well as some metallic materials for balcony guardrails. As such, the design of the overall project would bring cohesiveness and uniformity to the project's various element within the site, and the building materials and colors would be typical of those used throughout the downtown area for similar developments.

The intensity of development that the proposed project would bring to the site would also be consistent with the intensity of the surrounding uses. Other nearby bayfront hotels, including the Hilton San Diego Bayfront, the Marriott Marquis San Diego Marina, and the Manchester Grand Hyatt, all contain high-rise towers that are situated near the waterfront with other lower-rise components, including parking structures and ballroom/meeting areas, spread across the other portions of their respective sites. In addition, the design of the proposed marina expansion would involve features that are standard to recreational marinas (e.g., similar construction materials, width of walkways and slips, height above water), and this project element would correspond to the existing marina as well as other nearby marinas that provide slips for large and small vessels.

As discussed under Threshold 1, the proposed project would dominate views within most of the KOPs identified for the project, including KOP 2, KOP 3, KOP 4, and KOP 5. However, this would not result in a degradation of character at the project site and surrounding area as, overall, the proposed project would be consistent with the context of downtown San Diego. Impacts related to visual quality and character would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts 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

Nighttime lighting sources during construction would consist of floodlights that would be focused on the work area to minimize light spillover. Nighttime construction activities would be limited to activities that would not violate the City of San Diego Noise Abatement and Control Ordinance Section 59.5.0404, which specifies that any loud construction noise is only permitted from 7 a.m. to 7 p.m., Monday through Saturday. This would require construction activities to cease operation by 7 p.m., and lights for construction work (e.g., bright pole-mounted balloon lights) would not be used beyond this timeframe. Although no nighttime lighting would be used for construction activities, some lighting may be used overnight at the construction site for security reasons. In addition, construction lighting from the project site would be largely obscured from Coronado and the San Diego bayfront from intervening landscaping and structures, such as EMPS. Moreover, construction lighting from the project site would blend in with the other sources of light from downtown San Diego. However, construction lighting associated with the proposed project would be a new source of temporary lighting at the project site that would potentially be visible to adjacent uses (**Impact-AES-4**).

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 vehicle windshields and construction materials. However, this increase in glare would be temporary and would appear to be part of existing glare conditions. Travel routes for construction traffic would include Harbor Drive and the surrounding roadways, which are considered highly traveled routes that characteristically experience moderate levels of daytime glare from light reflecting off vehicle windshields. As such, the temporary increase in motor vehicle traffic that would occur during construction of the proposed project would not be considered a new source of substantial glare. The increased truck traffic would blend in with the existing traffic and would be comparable to other truck traffic created by construction in the downtown area. Moreover, views of trucks originating from the site

would be partially buffered from several viewer groups in the downtown community by the SDCC and the existing Hilton San Diego Bayfront Hotel. Therefore, construction of the proposed project would not create a new source of substantial glare that would affect daytime views in the area. Impacts would be less than significant.

Operation

Light

Completion of the proposed project would consist of a new high-rise market-rate hotel tower and a second mid-rise lower-cost visitor-serving hotel as well as a parking structure, public plaza and park areas, and an expanded marina. The project would include a pedestrian bridge (if rights are secured) that would extend from the SDCC to the rooftop public plaza and park areas. These uses would increase the sources of lighting compared to existing conditions, which primarily includes security lighting at the marina and minimal lighting at the parking lots. The types of lighting introduced by the project would include interior lighting, exterior lighting for pedestrian safety and security, signage lighting, lighting along the pier for the proposed marina, and lighting from the increase in vehicles accessing the project site. Although the lighting would be increased over existing conditions, would be visible from offsite locations, and would contribute to the overall ambient glow of the project site and surrounding areas, lighting from onsite uses would be designed so as not spill directly onto other areas, consistent with Section 142.0740 of the City of San Diego Municipal Code.

Per the City's Municipal Code, interior and exterior lights associated with the proposed project would not shine directly onto surrounding areas and would not result in light spillover. The perception of the project's lighting sources would be similar to what currently results from the existing Hilton San Diego Bayfront Hotel and surrounding mid- to high-rise buildings. Furthermore, such new lighting would not be substantially brighter than existing light sources, such as that of the SDCC, the existing Hilton San Diego Bayfront Hotel, and the Marriott Marquis San Diego Marina Hotel, all of which produce substantial nighttime lighting. Although additional lighting sources associated with the proposed project could add to the ambient conditions of the area and downtown, this area is already characterized by high ambient light levels. In addition, views of light sources emanating from the proposed project would be partially buffered from viewers in the downtown community by the SDCC and the new source of lighting at the project site would not interfere with nighttime views of the site or surrounding area.

However, the lighting from the proposed high-rise market-rate hotel tower would be visible within a wider viewshed because the height of the building would exceed surrounding structures such as the SDCC. The proposed market-rate hotel tower would ultimately establish new sources of nighttime lighting at the project site, the perception of which would be comparable to existing lighting sources at the Hilton San Diego Bayfront Hotel and those created by other high-rise buildings in the surrounding area. Furthermore, while the proposed lighting would result in an increase in lighting at the project site, it would not be substantial enough to affect nighttime views in the area. In addition, these additional sources of lighting would not be substantially brighter than existing light sources used by surrounding development. The market-rate hotel tower would have similar light intensities as existing high-rise developments in the area, and it would incrementally contribute to existing high levels of nighttime lighting. However, because existing nighttime views in the area surrounding the site already experience high levels of nighttime lighting, the market-rate hotel tower would not represent a significant new source of substantial light within the area.

Finally, headlights from an increase in users of the project site such as hotel visitors, delivery trucks and other motor vehicles traveling to and from the project site and surrounding roadways would create an additional light source from the proposed project. The roadways in the vicinity, including Harbor Drive, Park Boulevard, Convention Way, and Marina Park Way, are considered highly traveled with moderate to high levels of lighting currently resulting from vehicle headlights. Therefore, a moderate increase in the number of vehicles traveling to and from the project site would not represent a new substantial source of nighttime lighting. Overall, existing nighttime views in the area surrounding the project site are already experiencing a high level of nighttime lighting. Although a substantial change in lighting would occur as a result of the project, the increased lighting would not affect day or nighttime views in the area and contributions to increased ambient glow would not represent a significant change in existing conditions that would be perceptible from surrounding sensitive viewing areas. Impacts would be less than significant.

Glare

Finishing building materials for the proposed project would use a combination of non-reflective building materials such as cement, plaster, and concrete, as well as reflective building materials such as glass, mirrored glass, and metal. This would result in an increased source of glare compared to existing conditions, which includes some glare from parked cars. The majority of the architectural elements would be compatible with the surrounding buildings, such as the SDCC, the Hilton San Diego Bayfront Hotel, and the Marriott Marquis San Diego Marina, which use similar finishing materials. The five-story lower-cost visitor-serving hotel would generally not make substantial use of glare-producing materials, and views of this project component would be obscured from surrounding viewers by the intervening SDCC building, the boats at the marina, and trees at EMPS. In addition, the increase in slips at the marina would increase the number of boats docked in the project vicinity, which would increase the amount of glare that would reflect off the windows and other surfaces of the boats. However, the increase in boats would represent a minimal amount of glare that, like the lower-cost, visitor serving hotel, would be visible to pedestrians along the Embarcadero or users of the Bay but would be obscured from most viewers by intervening structures and landscaping.

The most substantial glare-producing elements of the proposed project would include the glass façade of the proposed market-rate hotel tower, which would likely produce low to moderate amounts of glare at various times of the day depending on the angle of the sun and viewers relative to the building. This type of glare typically occurs during the hour or so after sunrise and before sunset. Given the proposed height of the market-rate hotel tower (approximately 498 feet above grade), the potential for substantial glare would be highest within the bayfront area and downtown community during times of the day when the sun is low in the horizon. As designed, the proposed market-rate hotel tower would have a curtainwall façade that would use architectural finishes and façade materials that would increase the amount of glare produced at the project site by moderate amounts, which would be comparable to existing materials utilized in other high-rise structures in the area, namely the existing Hilton San Diego Bayfront Hotel. As mentioned above, because the surrounding area is highly urbanized and developed, existing daytime views in the area already experience moderate levels of daytime glare. However, the project site is currently undeveloped, and therefore does not contribute to existing daytime glare conditions. As such, the moderate increase in the amount of glare produced by market-rate hotel tower would represent a significant new source of substantial glare at the project site compared to existing conditions, which would potentially affect daytime views in the area (**Impact-AES-5**).

The proposed project would also result in increased motor vehicle traffic on onsite and surrounding roadways, including Harbor Drive, Park Boulevard, Convention Way, and Marina Park Way, which would result in increased glare conditions from light reflecting off vehicle windshields. Harbor Drive and surrounding roadways are already considered highly traveled routes that currently experience moderate levels of daytime glare from light reflecting off vehicle windshields. As such, the permanent increase in motor vehicle traffic that would occur during operation of the project would not be considered a new source of substantial glare. Consequently, implementation of the proposed project would not create a new source of substantial daytime glare that would that would adversely affect daytime views. Impacts would be less than significant.

Level of Significance Prior to Mitigation

Construction

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

Impact-AES-4: Temporary New Source of Nighttime Lighting During Construction.

Construction of the proposed project would potentially introduce a new source of temporary nighttime lighting from the use of overnight security lights at the project site.

Operation

Operation of the proposed project would create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the surrounding area. Potentially significant impacts include:

Impact-AES-5: New Permanent Source of Glare Generated by the Proposed Market-Rate Hotel Tower. The proposed market-rate hotel tower would have a curtainwall façade that would use architectural finishes and façade materials that would increase the amount of glare produced at the project site by moderate amounts, which would represent a significant new source of substantial glare at the project site compared to existing conditions that would potentially affect daytime views in the area.

Mitigation Measures

For **Impact-AES-4**:

MM-AES-5: Down-shield All Construction Security Lighting. The project proponent shall ensure that all overnight construction security lighting used at the project site is down-shielded to prevent any light spillover off site consistent with City of San Diego regulations on glare and outdoor lighting (Municipal Code Sections 142.0730 and 142.0740).

For **Impact-AES-5**:

MM-AES-6: Incorporate the Use of Reduced Glare Building Materials. The proposed market-rate hotel tower shall incorporate non-reflective exterior building materials in its design, and any glass incorporated into the façade of the building shall either be of low reflectivity or accompanied by a non-glare coating. Prior to issuance of a building permit for the market-rate

hotel tower, the District's Development Services Department shall confirm such non-reflective materials and low reflectivity or non-glare coating are depicted on the appropriate building plans.

Level of Significance after Mitigation

Implementation of **MM-AES-5** would reduce **Impact-AES-4** to less-than-significant levels by ensuring that all temporary overnight security lighting at the project site is down-shielded to prevent any offsite light spillover consistent with City of San Diego regulations on glare and outdoor lighting.

Implementation of **MM-AES-6** requires the project proponent to incorporate reduced glare building materials into the final project design, such as non-reflective building materials and glass that is of low reflectivity or accompanied by a non-glare coating. The incorporation of these features would ensure that **Impact-AES-5** is reduced to less-than-significant levels.

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) violate any air quality standard or contribute substantially to an existing or projected air quality violation, (3) 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, (4) expose sensitive receptors to substantial pollutant concentrations, or (5) create objectionable odors affecting a substantial number of people.

Table 4.2-1 summarizes the significant impacts and mitigation measures discussed in this section.

Table 4.2-1. Summary of Significant 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 RAQS and SIP	MM-AQ-1: Update the RAQS and SIP with New Growth Projections	Less than Significant	The temporary inconsistency with the current RAQS and SIP associated with the proposed land use designation changes would be rectified and the project would no longer be inconsistent.
Impact-AQ-2: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Construction	MM-AQ-2: Use Low-VOC Interior and Exterior Coatings During Construction MM-AQ-3: Limit Soil Hauling Truck Counts during Excavation to Reduce Daily Construction-Related Emissions	Less than Significant	Mitigation requiring low-VOC coatings would reduce construction-related VOC emissions to a level below the threshold.
Impact-AQ-3: Cumulative Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Construction	MM-AQ-2 and MM-AQ-3	Less than Significant	Mitigation requiring low-VOC coatings would reduce cumulative VOC emissions to a level below the threshold.

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 in Southern California, including the SDAB, is controlled largely by the strength and position of a subtropical high-pressure cell over the Pacific Ocean. Areas within 3–5 miles of the coast, including the project site, experience moderate temperatures and comfortable humidity (SDAPCD 2010a). Precipitation is mostly limited to a few storms during the winter season. Winds in the vicinity of the project site usually are driven by the dominant land/sea breeze circulation system. During the day, regional wind patterns are dominated by onshore sea breezes. At night, wind generally slows, remains still, or reverses direction, traveling toward the sea.

The atmospheric conditions of the SDAB contribute to the region's air quality conditions. Because of its climate, the SDAB experiences frequent temperature inversions. Typically, temperature decreases with height. However, under inversion conditions, temperature increases as altitude increases. Temperature inversions prevent the air close to the ground from mixing with the air at higher elevations. As a result, air pollutants are trapped near the ground. During the summer, the interaction between the ocean surface and the lower layer of the atmosphere creates a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons (HC) and nitrogen oxides (NO_x) react under strong sunlight and temperature, creating smog. Light and daytime winds, primarily from the northwest, further aggravate this condition by driving the air pollutants inland toward the warmer foothills. During the fall and winter, elevated carbon monoxide (CO) and NO_x levels usually occur during fall or winter, on days with summer-like conditions (SDAPCD 2010b).

High air pollution levels in coastal communities of San Diego can often occur when polluted air from the adjacent SCAB, particularly from Los Angeles, travels southwest over the ocean at night and is brought on shore into San Diego by the sea breeze during the day. Smog transported from the SCAB is a key factor on more than 50 of the days San Diego exceeds clean air standards. Ozone (O₃) and its precursor emissions (HC and NO_x) are transported to San Diego during relatively mild Santa Ana weather conditions. During strong Santa Ana weather conditions, however, pollutants are pushed away from San Diego far out to sea. When smog is blown in from the SCAB at ground level, the highest O₃ concentrations are measured at coastal and near-coastal monitoring stations. When the transported smog is elevated, coastal sites may be passed over, and the transported ozone is measured farther inland and on the mountain slopes (SDAPCD 2010b).

Local

The weather station closest to the project site is the San Diego/Lindbergh Field Station, which is approximately 2.4 miles to the northwest. Given its proximity, historic climatic conditions at San Diego/Lindbergh Field are assumed to be representative of the prevailing climatic conditions. The annual average temperature at Lindbergh Field is 63°F, with an average winter temperature of 57°F

and an average summer temperature of 69°F. Total annual precipitation averages 10.13 inches. Precipitation occurs mostly during the winter and relatively infrequently during the summer (WRCC 2014).

The project site is in the vicinity of two wind monitoring stations operated by the San Diego Air Pollution Control District (SDAPCD): Perkins Elementary School, approximately 0.7 mile southeast of the project site in the Barrio Logan community, and the San Diego/Lindbergh Field Station, approximately 2.4 miles northwest of the project site. Wind patterns at Perkins School indicate a prominence of westerly winds that average 4.27 miles per hour (mph), with calm winds present approximately 10.01% of the time. Wind monitoring data recorded at the San Diego/Lindbergh Field Station indicate a more west-northwest prominence, averaging 6.33 miles per hour (2.83 meters per second) with calm winds present approximately 0.84% of the time (Reeve pers. comm.). A wind rose showing wind directions, speeds, and frequency in the project vicinity is shown in Appendix D.

4.2.2.2 Air Quality Conditions

Regional

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 (ARB) 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 – Marginal	Nonattainment
Carbon Monoxide (CO)	Attainment/Maintenance	Attainment
Respirable Particulate Matter (PM ₁₀)	Unclassifiable/Attainment	Nonattainment
Fine Particulate Matter (PM _{2.5})	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 ¹
Visibility	(No federal standard)	Unclassified

Sources: ARB 2016a; SDAPCD 2016.

¹ 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

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 San Diego–Beardsley Street (Barrio Logan) station (ARB 80142), approximately 0.6 mile to the east/southeast.

Concentrations of pollutants from the San Diego–Beardsley Street station over the last 4 years (2012–2015) of complete data are presented in Table 4.2-3. Over the previous 4 years of available data, monitoring has shown the following pollutant concentrations trends: the 8-hour O₃ CAAQS was exceeded twice in 2014; 24-hour particulate matter (PM) less than or equal to 10 microns in diameter (PM₁₀) CAAQS was exceeded once in 2013, but did not exceed the NAAQS; and 24-hour PM less than or equal to 2.5 microns in diameter (PM_{2.5}) NAAQS was exceeded once each in 2012 and 2013. No violations of the CO CAAQS or NAAQS or the nitrogen dioxide (NO₂) NAAQS were recorded.

Table 4.2-3. Ambient Background Concentrations from the San Diego–Beardsley Street Monitoring Station

Pollutant Standards	2012	2013	2014	2015
1-Hour Ozone (O₃)				
Maximum Concentration (ppm)	0.071	0.063	0.093	0.089
<i>Number of Days Standard Exceeded</i>				
CAAQS 1-hour (>0.09 ppm)	0	0	0	0
8-Hour Ozone (O₃)				
State Maximum Concentration (ppm)	0.065	0.053	0.073	0.067
National Maximum Concentration (ppm)	0.065	0.053	0.072	0.067

Pollutant Standards	2012	2013	2014	2015
National 4 th Highest Concentration (ppm)	0.052	0.052	0.068	0.061
<i>Number of days standard exceeded</i>				
CAAQS 8-hour (>0.070 ppm)	0	0	2	0
NAAQS 8-hour (> 0.075 ppm)	0	0	0	0
Carbon Monoxide (CO)				
Maximum Concentration 8-hour Period (ppm)	1.9	2.1	1.9	1.9
Maximum Concentration 1-hour Period (ppm)	2.6	3.0	2.7	2.6
<i>Number of days standard exceeded</i>				
NAAQS 8-hour (≥ 9 ppm)	0	0	0	0
CAAQS 8-hour (≥ 9.0 ppm)	0	0	0	0
NAAQS 1-hour (≥ 35 ppm)	0	0	0	0
CAAQS 1-hour (≥ 20 ppm)	0	0	0	0
Nitrogen Dioxide (NO₂)				
Maximum 1-hour Concentration	65.0	72.0	75.0	62.0
Annual Average Concentration	13	14	13	14
<i>Number of Days Standard Exceeded</i>				
CAAQS 1-Hour (0.18 ppm)	0	0	0	0
NAAQS 1-Hour (0.100 ppm)	0	0	0	0
Suspended Particulates (PM₁₀)				
State Maximum 24-hour Concentration	47.0	92.0	41.0	54.0
National Maximum 24-hour Concentration	45.0	90.0	40.0	53.0
State Annual Average Concentration (CAAQS = 20 $\mu\text{g}/\text{m}^3$)	22.2	25.4	23.8	23.0
<i>Number of Days Standard Exceeded</i>				
CAAQS 24-hour (>50 $\mu\text{g}/\text{m}^3$)	0	1	0	0
NAAQS 24-hour (>150 $\mu\text{g}/\text{m}^3$) - <i>Expected Days</i>	0	0	0	0
Suspended Particulates (PM_{2.5})				
National Maximum 24-hour Concentration ($\mu\text{g}/\text{m}^3$)	39.8	37.4	36.7	44.9
24-hour Standard 98 th Percentile ($\mu\text{g}/\text{m}^3$)	24.1	19.6	24.8	19.6
National Annual Average Concentration (NAAQS = 12.0 $\mu\text{g}/\text{m}^3$)	11.0	10.3	10.1	9.3
State Annual Average Concentration (CAAQS = 12 $\mu\text{g}/\text{m}^3$)	--	10.4	10.2	10.2
<i>Number of Days Standard Exceeded</i>				
NAAQS 24-Hour (>35 $\mu\text{g}/\text{m}^3$)	1	1	1	0
Source: ARB 2016b; EPA 2016a. Data compiled by ICF.				
ppm = parts per million; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter				

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: O₃, lead, CO, NO₂, sulfur dioxide (SO₂), and PM₁₀ and PM_{2.5}. Ozone and NO₂ are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as PM₁₀, PM_{2.5}, CO, SO₂, and lead are considered local pollutants that tend to accumulate in the air locally.

The primary pollutants of concern in the project area are O₃ (including NO_x and reactive organic gases [ROGs]), CO, and PM. Principal characteristics surrounding these pollutants are discussed below.

- **Ozone**, or smog, is a photochemical oxidant that is formed when ROG and NO_x (both by-products of the internal combustion engine) react with sunlight. O₃ poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Additionally, O₃ has been tied to crop damage, typically in the form of stunted growth and premature death. O₃ can also act as a corrosive, resulting in property damage such as the degradation of rubber products. Meteorology and terrain play major roles in O₃ formation. Ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O₃ is considered a regional pollutant; high levels often occur downwind of the emission source because of the length of time between when the ROG form and when they react with light to change to O₃.
- **Organic Gases—Precursors to Ozone** include ROGs and volatile organic compounds (VOCs). HC are organic gases that are formed solely of hydrogen and carbon. ROGs include all HC except those exempted by ARB. Therefore, ROGs are a set of organic gases based on state rules and regulations. VOCs are similar to ROGs in that they include all organic gases except those exempted by federal law. Both VOCs and ROGs are emitted from incomplete combustion of HC or other carbon-based fuels. Combustion engine exhaust, oil refineries, and oil-fueled power plants are the primary sources of HC. Another source of HC is evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint. Generally speaking, and in this analysis, ROGs and VOCs are used interchangeably to refer to the HC that are a precursor to O₃ formation.

The primary health effects of HC result from the formation of O₃ and its related health effects. High levels of HC in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. There are no separate ambient air quality standards for ROGs. Carcinogenic forms of ROG are considered to be toxic air contaminants (TACs), which are described below. An example is benzene, which is a carcinogen.

- **Nitrogen Oxides** serve as integral participants in the process of photochemical smog production. The two major forms of NO_x are nitric oxide (NO) and NO₂. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO₂ is a reddish-brown irritating gas formed by the combination of NO and oxygen. NO_x acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens. NO_x is a precursor to O₃ formation.
- **Carbon Monoxide** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. The primary adverse health effect associated

with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation.

- **Particulate Matter** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized—inhalable coarse particles, or PM₁₀, and inhalable fine particles, or PM_{2.5}. 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. Both PM₁₀ and PM_{2.5} may adversely affect the human respiratory system, especially in those people who are naturally sensitive or susceptible to breathing problems.

Health Effects of Criteria Air Pollutants

Criteria air pollutants are recognized to have a variety of health effects on humans. Research by ARB 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. O₃ is a powerful irritant that attacks the respiratory system, leading to the damage of lung tissue. Inhaled particulate matter, NO₂, and SO₂ 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)	<ul style="list-style-type: none"> Atmospheric reaction of organic gases with NO₂ in sunlight 	<ul style="list-style-type: none"> Aggravation of respiratory and cardiovascular diseases Irritation of eyes Impairment of cardiopulmonary function Plant leaf injury
Nitrogen Dioxide (NO ₂)	<ul style="list-style-type: none"> Motor vehicle exhaust High temperature stationary combustion Atmospheric reactions 	<ul style="list-style-type: none"> Aggravation of respiratory illness Reduced visibility Reduced plant growth Formation of acid rain
Carbon Monoxide (CO)	<ul style="list-style-type: none"> Incomplete combustion of fuels and other carbon containing substances, such as motor exhaust Natural events, such as decomposition of organic matter 	<ul style="list-style-type: none"> 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 (PM _{2.5} and PM ₁₀)	<ul style="list-style-type: none"> Stationary combustion of solid fuels Construction activities Industrial processes Atmospheric chemical reactions 	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> Combustion of sulfur-containing fossil fuels Smelting of sulfur-bearing metal ores Industrial processes 	<ul style="list-style-type: none"> Aggravation of respiratory diseases (asthma, emphysema) Reduced lung function Irritation of eyes Reduced visibility Plant injury Deterioration of metals, textiles, leather, finishes, coatings, etc.
Lead (Pb)	<ul style="list-style-type: none"> Contaminated soil 	<ul style="list-style-type: none"> 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 diesel particulate matter (DPM). For TACs that are known or suspected carcinogens, ARB 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 California Office of Environmental Health Hazard Assessment (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 Background Air Quality and Health Risk

Regional Criteria Pollutant Inventory and Forecast

ARB periodically develops existing and future year emission inventories for the entire state and for individual regions by source (e.g., stationary, mobile, and area-wide). An inventory of the most recent (2012) and future (2020 and 2035) regional projections for the SDAB is presented in Table 4.2-5. As shown, emissions from most pollutants are expected to decrease over time, particularly due to mobile source-related regulations.

Table 4.2-5. Estimate of SDAB Emissions by Source (tons per day)

Emission Source	VOC	NO _x	CO	SO _x	PM10	PM2.5
2012						
<i>Stationary Sources</i>						
Fuel Combustion	1.0	4.3	13.5	0.3	1.0	1.2
Waste Disposal	2.2	0.2	0.1	0.0	0.5	0.2
Cleaning and Surface Coatings	15.5	-	-	-	-	-
Petroleum Production and Marketing	8.9	0.0	0.0	-	-	-
Industrial Processes	2.4	0.2	0.3	0.0	4.4	1.2
Total Stationary Sources	30.0	4.7	13.9	0.3	6.0	2.5
<i>Area Sources</i>						
Solvent Evaporation	29.5	-	-	-	0.0	0.0
Miscellaneous Processes	6.0	2.6	15.2	0.1	56.7	10.9
Total Area Sources	35.5	2.6	15.2	0.1	56.7	10.9
<i>Mobile Sources</i>						
Onroad Vehicles	29.9	67.9	314	0.5	6.0	3.1
Other Mobile Sources	30.6	30.5	182.4	0.4	3.7	3.5
Total Mobile Sources	60.5	98.4	496.4	0.9	9.7	6.6
SDAB Total	126.0	105.7	525.5	1.3	72.4	20.0
2020						
<i>Stationary Sources</i>						
Fuel Combustion	1.0	3.9	14.1	0.3	1.0	1.1
Waste Disposal	2.5	0.2	0.1	0.0	0.6	0.2
Cleaning and Surface Coatings	17.0	-	-	-	-	-
Petroleum Production and Marketing	10.0	0.0	0.0	-	-	-
Industrial Processes	3.5	0.3	0.5	0.0	5.7	1.6
Total Stationary Sources	34.0	4.3	14.7	0.3	7.3	2.8
<i>Area Sources</i>						
Solvent Evaporation	30.3	-	-	-	0.0	0.0

Emission Source	VOC	NO_x	CO	SO_x	PM10	PM2.5
Miscellaneous Processes	6.2	2.8	15.2	0.1	58.1	11.3
Total Area Sources	36.5	2.8	15.2	0.1	58.1	11.3
<i>Mobile Sources</i>						
Onroad Vehicles	18.3	37.0	172.0	0.5	5.5	2.5
Other Mobile Sources	24.8	23.5	188.7	0.3	3.1	2.9
Total Mobile Sources	43.1	60.5	360.7	0.8	8.6	5.4
SDAB Total	113.7	67.6	390.5	1.3	74.0	19.4
2035						
<i>Stationary Sources</i>						
Fuel Combustion	1.1	4.1	16.1	0.3	1.0	1.1
Waste Disposal	2.5	0.2	0.1	0.0	0.6	0.2
Cleaning and Surface Coatings	17.0	0.0	0.0	0.0	0.0	0.0
Petroleum Production and Marketing	10.6	0.0	0.0	0.0	0.0	0.0
Industrial Processes	5.5	0.4	0.6	0.0	7.4	2.1
Total Stationary Sources	36.9	4.7	16.9	0.3	9.1	3.4
<i>Area Sources</i>						
Solvent Evaporation	32.2	0.0	0.0	0.0	0.0	0.0
Miscellaneous Processes	6.9	3.2	17.6	0.2	58.8	12.0
Total Area Sources	39.1	3.2	17.6	0.2	58.8	12.0
<i>Mobile Sources</i>						
Onroad Vehicles	12.0	20.5	105.2	0.5	6.6	2.9
Other Mobile Sources	22.7	20.6	219.5	0.6	2.8	2.7
Total Mobile Sources	34.6	41.1	324.8	1.1	9.4	5.6
SDAB Total	110.6	48.9	359.2	1.6	77.3	21.0

Source: ARB Almanac of Emissions (ARB 2013).
Notes: Totals may not add exactly due to rounding.

Regional Toxic Air Contaminants and Health Risk

Between 1990 and 2007, ARB monitored outdoor concentrations for various TACs at two sites in the SDAB: Chula Vista and El Cajon. Based on this information, ARB 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 DPM (ARB 2009). Note that DPM is not directly monitored because an accepted measurement method does not currently exist, but ARB 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).

More recently, the State released 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. Neighborhoods near the project site represent some of the highest rankings (e.g., worst air quality) in the state. The census tract just south of the project site (6073005100), as well as the Barrio Logan community both west/south (census tract 6073005000) and east/north of Interstate 5 (census tract 6073004900), are within the worst 96–100% in the state. Twenty-six 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 2014).

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 2014). The information presented herein regarding CalEnviroScreen is for illustrative purposes only.

Local Criteria Pollutants at the Project Site

Activity at the project site generates criteria pollutant emissions. Specifically, criteria pollutant emissions result from activity associated with marina operations, including vehicle trips, building energy, and area sources (consumer products and periodic painting). Additionally, criteria pollutant emissions are generated by the existing ferry service and recreational boating associated with the existing 12 slips. Note that because the existing parking lot serves only as storage space for the San Diego Convention Center (SDCC) and is temporarily converted to parking spaces, these trips are not attributed to existing operations and are therefore not included in the baseline analysis here. A description of each of these sources and associated emissions modeling is provided in Section 4.2.4.1 below. Emissions associated with existing activity at the daily time scale (pounds per day) are presented in Table 4.2-6.

Table 4.2-6. Estimate of Existing Criteria Pollutant Emissions at the Project Site (pounds per day)

Emission Source	VOC	NO_x	CO	SO_x	PM10	PM2.5
<i>Existing Landside</i>						
Motor Vehicles	0.2	0.4	1.3	<0.1	0.1	<0.1
Natural Gas	0.1	0.6	0.5	<0.1	<0.1	<0.1
Consumer Products	1.1	<0.1	<0.1	<0.1	<0.1	<0.1
Architectural Coatings	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
<i>Existing Landside Daily</i>	<i>1.5</i>	<i>1.1</i>	<i>1.8</i>	<i><0.1</i>	<i>0.1</i>	<i>0.1</i>
<i>Existing Boating</i>						
Ferry Service	4.3	36.7	15.3	<0.1	2.1	2.0
Recreational Boating	0.5	6.0	2.0	<0.1	0.3	0.3
<i>Existing Boating Daily</i>	<i>4.8</i>	<i>42.7</i>	<i>17.3</i>	<i><0.1</i>	<i>2.4</i>	<i>2.4</i>
Total Existing Daily	6.2	43.8	19.1	<0.1	2.5	2.4

Source: Appendix D.

Note: Totals may not add exactly due to rounding.

4.2.2.5 Sensitive Receptors

The impact of air pollutant emissions on sensitive members 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. ARB 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 (ARB 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.

Land uses within vicinity of the project site include a mix of recreation and the SDCC to the west and east, Burlington Northern Santa Fe railyard to the north, and the Tenth Avenue Marine Terminal to the south. The closest residential land uses to the project site are the residences approximately 900 feet north of the project boundary. There are also many nearby recreational land uses, including Embarcadero Marina Park, which is immediately adjacent to the project site, as well as Martin Luther King Jr. Promenade Park, Petco Park, the Children's Park, and promenades. The nearest schools include Perkins Elementary and Monarch School, which are approximately 0.50 mile to the southeast. The closest place of worship is the Mosaic San Diego Church, which is approximately 0.60 mile to the northeast.

4.2.3 Applicable Laws and Regulations

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

4.2.3.1 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.

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 4.2-7 shows the NAAQS currently in effect for each criteria pollutant. The NAAQS were amended in July 1997 to include an 8-hour standard for O₃ and adopt a standard for PM_{2.5}. The 8-hour O₃ NAAQS was further amended in October 2015. EPA will designate O₃ attainment and nonattainment areas in late 2017.

Table 4.2-7. Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS¹	NAAQS²
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 (PM ₁₀)	24 hour	50 µg/m ³	150 µg/m ³
	Annual Arithmetic Mean	20 µg/m ³	--
Fine Particulate Matter (PM _{2.5})	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: ARB 2016b.

¹ The CAAQS for O₃, CO, SO₂ (1-hour and 24-hour), NO₂, PM₁₀, and PM_{2.5} are values not to be exceeded. All other California standards shown are values not to be equaled or exceeded.

² The NAAQS, other than O₃ and those based on annual averages, are not to be exceeded more than once a year. The O₃ 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/m³ is equal to or less than 1. For PM_{2.5}, 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/m³ = micrograms per cubic meter.

EPA Emission Standards for Non-Road Diesel Engines

To reduce emissions from non-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 that frequent the Port of San Diego. For the proposed project,

this rule affects the diesel-powered recreational and excursion vessels that visit the project site. 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).

4.2.3.2 State

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 4.2-7 shows the CAAQS currently in effect for each criteria pollutant.

ARB 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 ARB, which, in turn, has delegated that authority to individual air districts. ARB 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 California CAA 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 California CAA 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.

Toxic Air Contaminants Regulations

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, ARB identified particulate emissions from diesel-fueled engines as TACs. In September 2000, ARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. As an ongoing process, ARB reviews air contaminants and identifies those that are classified as TACs. ARB also continues to establish new programs and regulations for the control of TACs, including DPM, as appropriate.

California Diesel Fuel Regulation

With this rule, ARB set sulfur limitations for diesel fuel sold in California for use in on- and off-road motor vehicles (13 CCR 2281–2285; 17 CCR 93114). Under this rule, diesel fuel used in motor

vehicles except harbor craft and intrastate locomotives has been limited to 500 ppm sulfur since 1993. The sulfur limit was reduced to 15 ppm on September 1, 2006. A federal diesel rule similarly limited sulfur content nationwide to 15 ppm by October 15, 2006.

Senate Bill 535 and Assembly Bill 1532

Senate Bill 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 1532 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 Senate Bill 535 (Cal/EPA 2014).

California Communities Environmental Health Screening Tool (CalEnviroScreen)

Cal/EPA adopted the Environmental Justice Action Plan in 2004, which called for the development of guidance to analyze the impacts of multiple pollution sources in California communities. CalEnviroScreen is primarily designed to assist Cal/EPA in carrying out its environmental justice mission. CalEnviroScreen is a science-based guidance and screening tool aiming to assess the cumulative impacts of environmental pollution in California communities, primarily used to identify disadvantaged communities and to assist planning and decision-making such as administering environmental justice grants, prioritizing cleanup activities, and guiding environmental community programs. CalEnviroScreen provides a relative ranking of communities based on a selected group of indicators and will help to identify disadvantaged communities per Senate Bill 535.

4.2.3.3 Regional

Port of San Diego

The Port Master Plan (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, and the District's Climate Action Plan has co-benefits 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. The Clean Air Program is one key area of the Clean Port Program, with the primary goal of reducing air emissions from Port operations at its three marine terminals. The Clean Air Program seeks to voluntarily reduce criteria pollutants and greenhouse gas (GHG) emissions from current and future District operations through the identification and evaluation of feasible and effective control measures for each category of Port emissions. The District has developed various control measures geared toward reducing emissions from the greatest contributors of air pollution. The Clean Air Program will continue to be refined and be adapted to future changes in District operations (District 2008). The District has also adopted a Clean Truck Program and vessel speed reduction program. Through efforts at the international, federal, state, and local levels, air emissions from goods movement sources at the Port have been greatly reduced (District 2014).

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

ARB, 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. The RAQS does not currently address the state air quality standards for PM₁₀ or PM_{2.5}. 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. Both the RAQS and SIP demonstrate the effectiveness of ARB measures (mainly for mobile sources) and SDAPCD's plans and control measures (mainly for stationary and area-wide sources) for attaining the O₃ NAAQS. The SIP is also updated on a triennial basis. SDAPCD adopted its attainment plan and Reasonable Available Control Technology Demonstration for the 2008 8-hour O₃ NAAQS. In addition, the *Measures to Reduce Particulate Matter in San Diego County* report (December 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.

ARB is currently working on an update to the SIP and recently released a *Revised Proposed 2016 State Strategy* for the SIP. This strategy describes proposed State measures to achieve the reductions necessary from the mobile sector and consumer products to meet O₃ and PM_{2.5} NAAQS over the next 15 years. The 2016 SIP update will incorporate regional SIPs (to be developed) as well as the Scoping Plan Update, California's Sustainable Freight Action Plan, the Short-Lived Climate Pollutant Strategy, and implementation of Senate Bill 375. ARB 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.
- **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.
- **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.

4.2.4 Project Impact Analysis

4.2.4.1 Methodology

Air quality impacts associated with construction and operation of the proposed project 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 D. 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, *Greenhouse Gas Emissions and Climate Change*.

Construction

Landside Components

Construction of the proposed project would generate emissions of ROG, NO_x, CO, sulfur oxides (SO_x), PM₁₀, and PM_{2.5} that could result in short-term impacts on ambient air quality in the study area. Combustion exhaust, fugitive dust (PM₁₀ and PM_{2.5}), and fugitive off-gassing (VOC) were estimated using a combination of emission factors and methodologies from the California Emissions Estimator Model (CalEEMod), version 2016.3.1, ARB's EMFAC2014 model, ARB commercial harbor craft methodology, the ARB Pleasure Craft model, and EPA's AP-42 *Compilation of Air Pollutant Emission Factors* based on project-specific construction data (e.g., schedule, equipment types and numbers, truck volumes) provided by the project proponent and verified by the District for similar projects.

It is projected that landside construction would occur in four phases between 2018 and 2021. Each sub-phase of construction would be composed of several activities, such as demolition of existing uses, foundations, and structural frame. Phasing information, including the projected construction

schedule, construction equipment, material quantities, and truck trip quantities, was obtained from the project proponent and is contained within Appendix D. Equipment would include typical heavy-duty equipment (e.g., loaders, excavators, crushers) to demolish existing structures and development, prepare the site, lay the foundation, construct the buildings and ancillary uses, and crush demolition materials for re-use. Emissions associated with diesel-powered construction equipment were estimated based on emission, horsepower, and load factors from CalEEMod, with activity data (hours per days, days of use) provided by the project proponent. According to the project proponent, construction would include use of some electrically powered construction equipment, including dewater pumps, material lifts, and cranes. Electrically powered pieces of equipment do not generate criteria pollutant emissions; therefore, emissions are only included in the GHG emission estimates discussed in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

- 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 ARB's EMFAC 2014 web tool, similar to the vehicle split used in CalEEMod (e.g., LDA = 50%, LDT1 = 25%, LDT2 = 25%), a CalEEMod default trip length of 10.8 miles per trip and two trips per employee, and an estimate of workers per day by phase as provided by the project proponent.
- Emissions associated with material deliveries were estimated based on the average of T6 instate small and T6 instate heavy emission rates from EMFAC, CalEEMod default trip length of 7.3 miles per trip for material deliveries, and delivery truck estimates by phase provided by the proponent.
- Fugitive PM10 and PM2.5 dust would result from site preparation, excavation, demolition, and loading and unloading of debris into and out of trucks. Fugitive dust emissions associated with demolition were estimated based on calculation methodologies for mechanical dismemberment and debris truck loading in CalEEMod. According to the project proponent, demolition quantities includes 3,468 cubic yards (CY) (5,550 tons) of total demolition: 1,711 CY (2,738 tons) for the parking lot, 1,407 CY (2,251 tons) of hardscape, and 350 CY (560 tons) of existing building. Of this total 3,468 CY, 2,029 CY (3,246 tons) are expected to be recycled as fill material on site, 1,206 CY (1,929 tons) are expected to be hauled to the nearest recycling facility, and 234 CY (374 tons) are expected to be hauled to the nearest landfill.
- Fugitive PM10 and PM2.5 emissions associated with earthwork and grading were estimated based on calculation methodologies for bulldozing, grading, and truck loading in CalEEMod. Earthwork activities would include excavating approximately 35,000 CY of soil for basement excavation and 3,000 CY for miscellaneous site preparation. The footprint for grading activities were assumed to be similar to the existing building, parking, and hardscape square footage, which equals 3.4 acres during construction of the market-rate hotel tower (Phase 2.1) and 1.7 acres during site work (Phase 4.1). Bulldozing activities were assumed to occur throughout the entire work day during general site preparation phases, including demolition (Phase 1.1), excavation and foundations (Phase 2.1), offsite demolition/grading/utilities (Phase 4.1), and site improvements (Phase 4.4).
- Demolition debris that is not recycled on site is expected to be hauled to either a recycling facility or a landfill. For purposes of this analysis, it was assumed that the recycling facility would be Hanson Aggregates in Miramar, which is 16.6 miles from the project site. It was assumed that the landfill facility would be the Otay Landfill, which is 15.0 miles from the project site. Emissions associated with truck travel to haul demolition debris were estimated based on

the weighted average of these two disposal locations (which comes out to 13.0 miles per one-way trip) assuming a CalEEMod default 20-ton (16 cubic yards) truck capacity. Emissions associated with demolition material truck trips were estimated using truck haul information provided by the project proponent, exhaust emission factors from ARB's EMFAC model (ARB 2014), and fugitive road dust methodology from EPA (2011) and ARB (2014), based on T7 Single Construction annual average emission factors for each construction year (2018–2021).

- The majority of excavated materials (36,500 CY) would be taken to an offsite recycling facility, while the remaining materials (1,500 CY) are expected to be taken to the nearest landfill. However, as described in Section 4.7, *Hazards and Hazardous Materials*, soils within the project site may be contaminated and may require disposal at designated disposal locations outside of the County. For purposes of this CEQA analysis, it was assumed that all excavated materials would be taken to the San Diego/Imperial County line, which is an estimated 75.6-mile one-way distance from the project. Emission estimates assume a CalEEMod default 20-ton (16 cubic yards) truck capacity. Emissions associated with excavated material truck trips were estimated using truck haul information provided by the project proponent, exhaust emission factors from ARB's EMFAC model (ARB 2014), and fugitive road dust methodology from EPA (2011) and ARB (2014), based on heavy duty tractor trailer (T7 Single Construction) annual average emission factors for each construction year (2018–2021).
- Dump trucks would be active on site to move dirt and materials around and water trucks would be active on site for watering of exposed surfaces to provide fugitive dust control. Emissions associated with dump and water truck activity on site were estimated using truck quantity estimates provided by the project proponent, exhaust emission factors from ARB's EMFAC model assuming a 5-mile-per-hour travel speed for water trucks (T6 Instate Heavy) and Dump Trucks (T7 Single Construction), based on annual average emission factors for each construction year (2018–2021) (ARB 2014). It was assumed onsite dump and water trucks would be active for 8 hours per day.
- Fugitive VOC emissions associated with asphalt paving were estimated based on the assumption that the entire area parking garage, pedestrian walkways, and some of the public plaza areas within the project site would be paved. Emissions were estimated based on 4.1 acres of paving during the site improvements (Phase 4.4) phase. Emissions estimates are based on the CalEEMod default fugitive VOC offgassing emission factor of 2.62 pounds of VOC per acre paved.
- 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 796,000 gross square feet of new construction associated with the market-rate hotel tower, 80,000 gross square feet associated with the lower-cost, visitor-serving hotel, 10,000 square feet associated with the water transportation center, and 131,415 gross square feet associated with other surfaces, including the optional bridge connection (1,900 square feet), public plaza and park areas (85,490 square feet), retail storefronts (6,025 square feet), and parking structure (5,120 square feet painted). Note that the assumption regarding the parking structure is based on the CalEEMod default assumption that 6% of parking areas is painted (e.g., for striping). Emissions calculations assume a CalEEMod default VOC content of 250 grams per liter for both interior and exterior coatings.

Waterside Components

Construction of Phase I marina expansion is expected to begin when the hotel is nearly complete and take 6 to 9 months to complete. Based on the landside construction schedule, it was assumed that Phase I marina construction would begin in fall 2020 and last through early summer 2021, when the hotel is expected to be complete. The marina includes two phases: Phase I, which includes 23 new slips and the WTC, is expected to overlap with hotel construction and be ready for opening day of the project, while Phase II, which includes 27 additional slips, is expected to be built at a later date based on market conditions, which is anticipated to be approximately 5 years after the hotel is operational. Both phases of marina construction would include the use of barge-based equipment to install docks, tugs to bring barges to and from the staging area, skiffs to push docks around, and a push boat. In addition, there is a potential to use barges to store or deliver material or equipment for the landside construction. Emission calculations are provided in Appendix D. Note that Phase II of the marina expansion construction is expected to include similar equipment and occur over a similar timeframe (e.g., 6–9 months) as Phase I. However, because Phase II marina expansion construction is expected to occur well after all other landside and Phase I waterside components and would therefore not overlap with other construction activity, the construction impact analysis herein is based on Phase I marina construction only because overlapping landside and Phase I construction would represent the worst-case conditions with respect to daily emissions.

- Tugs would be used to bring the barges from the staging area to the project site at the beginning of construction. The Derek barge would anchor in place and is expected to contain the crane and jet pump, which are described below. The Derek barge is expected to remain on site for the entire Phase I and then Phase II marina construction periods, while the deck barge is expected to remain on site for 1 month to unload the gangways during each marina expansion phase. The barges have no engines.
- There would be up to four total tug trips for both phases of the marina expansion: two to bring in the barges, and two to remove the barges. Based on the project proponent's in-water construction plan, the tug is expected to be equipped with a 2,000 hp Tier 3 main/propulsion engine.¹ Tugs are equipped with auxiliary engines, the size of which were estimated based on the ratio of known auxiliary to main engine power rating in the District's most recent maritime emissions inventory, which is currently in progress. Tug activity is based on a 6-knot travel speed, 4-mile distance from the tug and barge staging area to the project site, and 1-hour period to anchor (and remove) the barge. Emissions are based on zero-hour emission factors, engine deterioration factors, fuel correction factors, useful life, and load factors for main propulsion and auxiliary tug engines from the ARB (ARB 2010).
- A push boat would be used periodically instead of the winch to anchor the barges. Push boat activity is expected to be minimal and average 2 hours per day when in use. Based on the project proponent's in-water construction plan, the push boat is expected to be equipped with a 450 hp diesel inboard engine. In order to estimate emissions, the average main and propulsion engine model year of push boats within the District's 2012 Air Emissions Inventory (District 2014) was used. Based on this averaging, the push boat was assumed to be model year 2007. For each phase of waterside construction, emissions estimates assume the push boat arrives and maneuvers the barge on the worst case day, and that the push boat is active once a week for

¹ The construction plan will be part of the proposed Coastal Development Permit to ensure consistency with the assumptions.

each 9-month marina construction period. Emissions are based on zero-hour emission factors, engine deterioration factors, fuel correction factors, useful life, and load factors for main propulsion and auxiliary work boat engines from the ARB (ARB 2010).

- Two small skiffs would be used to push the docks around during construction. Based on the project proponent's in-water construction plan, each skiff is expected to be equipped with a 60 hp outboard engine. In order to estimate emissions, gasoline outboard engines of this size within ARB's Personal Watercraft Model (ARB 2015) were averaged to determine the average model year. Based on this averaging, each skiff was assumed to be model year 1999. Emissions estimates assume the skiffs arrive and maneuver docks for 2 hours on the worst case day. It was assumed the skiffs are active 2 hours per day for each 9-month marina construction period.
- The Derek barge will carry a large crane and jet pump during each phase of the marina construction. Based on information from the project proponent, the crane is expected to be equipped with a 275 hp Tier 4 (final) engine, and the jet pump is expected to be equipped with a 350 hp Tier 4 (final) engine. It was assumed that the crane and jet pump would be active 8 hours per day for each 9-month marina construction period. Emissions are based on Tier 4 final emission factors for NO_x, ROG, and PM; CalEEMod emission factors for CO, SO_x, and GHGs; and default load factors for cranes and pumps from CalEEMod.

The maximum day of marina construction assumes the crane and jet pump are active at the project site, while the skiffs arrive from the staging area and move docks around, and the push boat arrives from the staging area and maneuvers the barge. Barge placement and removal is not expected to overlap with daily marina construction activities.

Operation

Operation of the proposed project would generate emissions of ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} that could result in long-term impacts on ambient air quality in the study area. The proposed project would include both landside and waterside elements. Emissions would result from motor vehicle trip generation, onsite combustion of natural gas for space and water heating, consumer products (cleaning supplies, kitchen aerosols, cosmetics, and toiletries), the re-application of architectural coatings, and recreational boating, including continuation of ferry services and additional slips that would expand recreational boating opportunities. Mass daily emissions were estimated using a combination of emission methods and emission factors from published best available documentation. In particular, emissions from landside activities are based on the methods, assumptions, and data sources within CalEEMod using emission factors from ARB's EMFAC2014 model, ARB's commercial harbor craft emissions model (ARB 2010), and EPA's AP-42 *Compilation of Air Pollutant Emission Factors*. Emissions from waterside activities were estimated based on methodologies and guidance published by ARB for estimating emissions from commercial and personal watercraft and activity information provided by the project proponent, including ferry activity and yacht duration at berth. While Phase II of the marina expansion is not expected to be operational at the project's opening day of 2021, this analysis assumes that the proposed project, including Phase II of the marina expansion, would be operational in 2021.

Note that GHG emissions from increased use of electricity from building and yacht cold ironing, water use, and waste generation at the project site is discussed solely in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

Landside Components

Mass daily criteria pollutant emissions associated with the landside components (market-rate hotel tower, lower-cost visitor-serving hotel, WTC, retail, and public plaza and park areas) were estimated based on a combination of input from the project proponent and emission calculation defaults within the above emission calculation models. Below is a description of the various sources and the methods used to estimate mass daily emissions.

- Emissions from motor vehicle travel were estimated using trip generation provided by Chen Ryan (Appendix K-1), CalEEMod default trip lengths and mode and destination splits for commercial uses, exhaust emission rates from ARB's EMFAC2014 web tool, and re-entrained paved road dust emission factors developed using EPA (2011) and ARB (2014) methods. Emissions were estimated based on the average vehicle fleet operating in San Diego County in 2021, the year the project is estimated to open, using the same methodology used in CalEEMod. Exhaust emissions include running emissions for all pollutants, running ROG losses, and PM10 and PM2.5 emissions from tire wear, brake wear, and paved road dust. These emissions were calculated by multiplying emission factors by daily vehicle miles traveled. Evaporative and starting losses were estimated using aggregated rates from EMFAC and were multiplied by average daily traffic to estimate emissions associated with starting (all pollutants) and evaporative (only ROG) emissions.
- Emissions from natural gas consumption were estimated based on detailed consumption data from the project proponent and CalEEMod emission factors for natural gas combustion.
- Emissions associated with consumer products (cleaning supplies, kitchen aerosols, cosmetics, and toiletries) were estimated based on building square footage and CalEEMod emission factors for consumer products (5.12×10^{-08} ROG pounds/square foot/day for park uses; 2.14×10^{-05} ROG pounds/square foot/day for all other uses)
- Emissions associated with the re-application of architectural coatings were estimated using CalEEMod defaults for re-application rate (10% annually) and unmitigated coating CalEEMod default VOC content of 250 grams per liter.

Waterside Components

Mass daily criteria pollutant emissions associated with the waterside components (ferry service and recreational boating) were estimated based on a combination of input from the project proponent and emission calculation defaults within the above emission calculation models. Below is a description of the various sources and the methods used to estimate mass daily emissions.

- Ferry service currently exists between the project site and Coronado Ferry Landing. The ferry operates 12 times a day (i.e., 12 round-trips) every day of the year. For purposes of analysis, it was assumed the project would have no effect on ferry activity (i.e., on operating hours per year), but the project would benefit from the proposed engine upgrade that will occur before opening day to comply with ARB's Harbor Craft Engine replacement rule. According to information provided by the ferry operator, the ferry currently has two 2003 Volvo TAMD 74 engines at 390 hp each. The operator is planning to replace these engines with two 2017 model year John Deere 6068AFM85 engines at 230 hp each in January 2018 consistent with the ARB's Harbor Craft Engine replacement rule. Based on information from ARB (2004), the auxiliary to propulsion power ratio average is 12.8% for ferry boats. Based on this estimate, there are currently two 50 hp auxiliary engines on the ferry, and two 30 hp auxiliary engines will be

included in the upgraded ferry. According to the project proponent and ferry operator, hours of operation are 12 hours per day, 365 days per year, which translates to 4,380 hours per year. While the auxiliary engines are on for that entire time (12 hours per day), the propulsion engines are on for only half that time (6 hours per day), or 2,190 hours per year. Emissions were estimated based on zero hour emission factors, adjustments for ultra-low sulfur fuel and deterioration, and engine load factors for ferry and excursion vessels (0.42 for propulsion, 0.43 for auxiliary) from the ARB methodology (ARB 2007).

- The proposed project would expand the marina from 12 slips under existing conditions to 62 total slips under full existing plus project buildout conditions. The expanded marina would allow for additional recreational boating and larger yachts to berth at the project site.

To evaluate worst-case conditions, it was assumed that yachts that berth in the 100-foot and larger slips are diesel-powered yachts with shore power capabilities while at berth. To estimate vessel characteristics for these yachts, Lloyds Register of Ships data were used for yachts and the propulsion power, service speed, and length were determined. The Lloyds data produced 364 yachts that would fit in the 36 100-foot and larger slips to be built. Power and speed were averaged for each slip size. Auxiliary power was estimated at 10% of propulsion power based on crew boats in the 2015 Port of Los Angeles inventory (POLA 2016). Crew boats were used as proxies for yachts because they are passenger boats with similar operating characteristics.

Based upon information from the project proponent (Gensler pers. comm.), yachts stay 55 days on average and use cold iron while at berth. In addition, according to the project proponent, yachts do not operate within the Bay but instead only use the Bay to transit in and out from foreign destinations (e.g., yachts do not typically cruise the Bay for a day, then return to berth). Based on this 55-day duration and to evaluate reasonably worst-case conditions, 6.6 calls per year per slip are assumed (365 days/55 days per slip). Moreover, according to the project proponent, yachts that occupy existing slips cold iron the entire time at berth, and it is assumed yachts that would occupy the proposed new slips would also cold iron the entire time at berth. Therefore, no criteria pollutants were assumed to occur while yachts are at berth, as all power needs are assumed to be supplied by electricity. To calculate movements where both the propulsion engine and auxiliary engine are running, distances from the project site to Point Loma were estimated at 8.38 nautical miles and from Point Loma to the Orange County border at 46 nautical miles. Time in mode was estimated based on the in-harbor speeds used in recent Port of Los Angeles and Port of Long Beach work (4.5 knots) and service speed outside the harbor to the Orange County border both coming and going (varies by vessel). Load factors were estimated (0.52 for propulsion and 0.43 for auxiliary) based on the ARB Harbor craft methodology for "Other" vessels (ARB 2007). Emission factors were taken directly from ARB harbor craft methodology. Emission factor deterioration was calculated based on crew boats, which have a useful life of 22 years and annual hours of 733 per year for propulsion and 3,036 for auxiliary.

For the smaller slip sizes, the ARB Pleasure Craft model was used to estimate emissions from diesel and gasoline inboard and gasoline sterndrive pleasure boats. Based on the size of the boats, the 250 hp bin was assigned to the 50-foot slip, the 500 hp bin to the 60-foot slip, and the 750 hp bin to the 75-foot slip. Emissions and hours per year per vessel were averaged based on the populations of each type of engine in the Pleasure Craft model.

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 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 proposed project would result in any of the following.

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
3. 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 (including releasing emissions that exceed quantitative thresholds for ozone precursors).
4. Expose sensitive receptors to substantial pollutant concentrations.
5. Create objectionable odors 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

An EIR should disclose and evaluate the public health consequences associated with increasing air pollutants. Consequently, the following section summarizes the thresholds established by the County of San Diego, presents substantial evidence regarding the basis upon which they were developed, and also 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.

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 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 of San Diego nor the District has developed CEQA thresholds of significance for air quality and health risk.² 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 SCAQMD, San Diego County has established screening-level thresholds (SLTs) to assist lead agencies in determining the significance of project-level air quality impacts within the county (as shown in Table 4.2-8). Although SDAPCD does not have VOC or PM_{2.5} AQIA Trigger Levels, the county has adopted a PM_{2.5} 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 2015), and a VOC SLT based on the threshold of significance for VOCs from the SCAQMD for the Coachella Valley. Emissions in excess of San Diego County's SLTs, shown in Table 4.2-9, would be expected to have a significant impact on air quality because an exceedance of the SLTs is anticipated to contribute to CAAQS and NAAQS violations in the county.

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.³ 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,⁴ the evidence in support of the air quality thresholds shown in Table 4.2-8 is deemed appropriate for their use in this analysis and in this location within the greater SDAB.

² 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.

³ San Diego Air Pollution Control District, Rule 20.2, Table 20.2-1, hereby incorporated by reference: <http://www.sdapcd.org/rules/Reg2pdf/R20-2.pdf>

⁴ "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 4.2-8. San Diego County Screening-Level Thresholds

Air Contaminant	Emission Rate		
	(pounds per hour)	(pounds per day)¹	(tons per year)
Respirable Particulate Matter (PM ₁₀)	--	100	15
Fine Particulate Matter (PM _{2.5}) 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.

¹ According to San Diego County, the daily SLTs are most appropriate when assessing impacts from standard construction and operational emissions. Therefore, daily SLTs are used to evaluate project significance, while hourly and annual SLTs 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 2015).

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 table 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

As discussed above, all criteria pollutants are associated with some form of health risk (e.g., asthma, asphyxiation). Adverse health effects associated with criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individuals [e.g., age, gender]). Moreover, O₃ precursors (ROG and NO_x) affect air quality on a regional scale. Health effects related to O₃ are therefore the product of emissions generated by numerous sources throughout a region. As part of the setting and updating of the NAAQS, EPA periodically develops and considers quantitative characterizations of exposures and associated risks to human health or the environment, known as a Health Risk and Exposure Assessment (HREA), with recent air quality conditions and with air quality estimated to just meet the current or alternative standard(s) under consideration (EPA 2016b). The HREA estimates mortality (e.g., incidents of death) and morbidity (e.g., incidents of reduced lung function) effects associated with a full range of observed pollutant concentrations as part of the analysis (EPA 2014). However, existing models have limited sensitivity to small changes in criteria pollutant concentrations and, as such, translating project-generated criteria pollutants to specific health effects using the regional ozone models would not produce meaningful information, as the project's emissions are unlikely to even show up in the model results.

In other words, minor increases in regional air pollution from project-generated ROG and NO_x would have nominal or negligible impacts on human health.⁵

As such, an analysis of impacts on human health associated with project-generated regional emissions is not included in the project-level analysis. Increased emissions of O₃ precursors (ROG and NO_x) generated by the project could increase photochemical reactions and the formation of tropospheric O₃, which, at certain concentrations, could lead to respiratory symptoms (e.g., coughing), decreased lung function, and inflammation of airways. Although these health effects are associated with O₃, the impacts are a result of cumulative and regional ROG and NO_x emissions, and the incremental contribution of the project to specific health outcomes from criteria pollutant emissions would be limited and cannot be solely traced to the project.

Because localized pollutants generated by a project can directly affect adjacent sensitive receptors, the analysis of project-related impacts on human health focuses only on those localized pollutants with the greatest potential to result in a significant, material impact on human health. This is consistent with the current state-of-practice and published guidance by the California Air Pollution Control Officers Association (CAPCOA 2009), OEHHA (2015), SDAPCD (2006), and ARB (2000). These localized pollutants are (1) localized CO concentrations, (2) toxic air contaminants, including DPM, and (3) asbestos.⁶ Locally adopted thresholds of significance for each pollutant are identified below. Note that a qualitative health-based analysis of criteria pollutants is briefly discussed under Threshold 4, but the health-based analysis focuses primarily on CO and DPM, which are most often associated with adverse health outcomes (i.e., acute, chronic, and cancer risks) as opposed to the respiratory irritability outcomes typically seen from exposure to elevated concentrations of the criteria pollutants discussed above.

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. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more (SCAQMD 1993). The following are applicable local emission concentration standards for CO.

- 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

⁵ As an example, the Bay Area Air Quality Management District's Multi-Pollutant Evaluation Method requires a 3 to 5% increase in regional ozone precursors to produce a material change in modeled human health impacts. Based on 2008 ROG and NO_x emissions in the Bay Area, a 3 to 5% increase equates to over 20,000 pounds per day of ROG and NO_x.

⁶ DPM is the primary TAC of concern for mobile sources—of all controlled TACs, emissions of DPM are estimated to be responsible for about 70% of the total ambient TAC risk. Given the risks associated with DPM, tools and factors for evaluating human health impacts from project-generated DPM have been developed and are readily available. Conversely, tools and techniques for assessing project-specific health outcomes as a result of exposure to other TACs (e.g., benzene) remain limited. These limitations impede the ability to evaluate and precisely quantify potential public health risks posed by TAC exposure.

As in most urban areas, high short-term concentrations of CO, known as “hotspots,” can occur in San Diego County. Hot-spots typically occur in areas of high motor vehicle use, such as in parking lots, at congested intersections, and along highways. Because elevated CO concentrations typically occur at locations with high traffic volumes and congestion, elevated CO concentrations are often correlated with level of service (LOS) at intersections. LOS expresses the congestion level for an intersection and is designated by a letter from A to F, with LOS A representing the best operating conditions and LOS F the worst. Significant concentrations of CO sometimes occur (depending on temperature, wind speed, and other variables) at intersections where LOS is rated at D or worse.

In order to assess the potential for CO hotspots at nearby intersections, the analysis herein uses the County’s CO hotspot screening criteria, which indicate that any project that would place receptors within 500 feet of a signalized intersection with peak-hour trips exceeding 3,000 trips and operating at or below LOS E must conduct a hotspot analysis for CO. Likewise, projects that will cause roadway segments with peak-hour trips exceeding 3,000 trips to operate at or below LOS E must also conduct a CO hotspot analysis.

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 ARB 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. 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,⁷ 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 would be deemed as having a potentially significant impact related to health risks from DPM exposure. Because various Toxics BACTs are in place at the Port—including ARB 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.

Criteria 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 O₃ within the SDAB; or globally, such as the potential impact of GHG emissions on global climate change.

⁷ 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.

Neither the District, nor the City of San Diego, nor SDAPCD has adopted quantitative thresholds to determine whether a project would have a cumulatively considerable contribution to air quality. The County of San Diego thresholds (see below), set forth by SDAPCD and SCAQMD, for cumulative air quality impacts are utilized for the analysis of the impacts of proposed project construction and operations related to emissions on air quality.

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, PM_{2.5}, NO_x, and/or ROG_s (i.e., an exceedance of SLT values indicated in Table 4.2-8) 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 past, present, or 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, PM_{2.5}, NO_x, and/or ROG_s (i.e., an exceedance of SLT values indicated in Table 4.2-8) would also have a significant cumulatively considerable net increase.
- Projects that cause road intersections to operate at or below LOS E for intersections 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.

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

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 (i.e., O₃, PM₁₀, and PM_{2.5}). The most recent SDAPCD air quality attainment plans are the 2016 RAQS and the 2016 O₃ attainment plan. The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for O₃, while the 2016 O₃ attainment plan includes SDAPCD's plans and control measures for attaining the NAAQS for O₃. The RAQS and SIP project future emissions and determine the strategies necessary for the reduction of stationary source emissions through regulatory controls. The RAQS relies on the emission projections and control measures outlined in the SIP. ARB 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. The 2016 O₃ attainment plan

represents SDAPCD's portion of the SIP. The SIP is a comprehensive plan of previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, State regulations, and federal controls that describes how each nonattainment area in the state will meet NAAQS, as described 4.2.3.4, *Local*.

The simplest test to assess project consistency is to determine if the project proposes development that is consistent with the growth anticipated by the relevant land use plans that were used in the formulation of the RAQS and SIP; if so, then the project would be consistent with the RAQS and SIP. 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.

The PMP is the governing land use document for physical development within the District. Projects that propose development consistent with growth anticipated by the current PMP are considered consistent with the RAQS and SIP. Moreover, in the event that a project would propose development that is less dense than anticipated within the current PMP, the project would likewise be consistent with the RAQS and SIP because emissions would be less than estimated within the current PMP. If a project proposes development that is greater than that anticipated in the PMP and SANDAG's growth projections, the project would be in conflict with the RAQS and SIP and might have a potentially significant impact on air quality because emissions would exceed those estimated for the existing land use plan (i.e., PMP). This situation would warrant further analysis to determine if a proposed project and surrounding projects would exceed the growth projections used in the RAQS for a specific subregional area.

As discussed in detail in Section 4.9, *Land Use and Planning*, the proposed project is within the PMP's Centre City Embarcadero Planning District (Planning District 3) and the vast majority of the project site, including landside and waterside areas, lies within the Convention Way Basin Subarea (Subarea 36). The optional bridge that would connect the proposed project to the SDCC lies within the Marina Zone Subarea (Subarea 35). PMP land use designations within the project site include Commercial Recreation, Park/Plaza, Promenade, Recreational Boat Berthing, Specialized Berthing, and Ship Navigation Corridor. The proposed project would include an amendment to the PMP to re-designate a portion of these land uses in the following manner: Commercial Recreation to Street; Street to Commercial Recreation; Specialized Berthing to Recreational Boat Berthing; Ship Navigation Corridor to Recreational Boat Berthing; Park to Commercial Recreation; and Commercial Recreation to Park. While re-designation of these land uses represents minor adjustments to the project site where these uses already exist at the site or are allowed under current designations (e.g., hotels and marinas under the Commercial Recreation designation), these new uses would represent new designations that were not previously considered in the PMP and subsequently in the RAQS and SIP (**Impact-AQ-1**). This is a potentially significant impact. Therefore, **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 re-designated land uses.

As detailed in Section 4.9 and in Table 4.9-2, the proposed project would be consistent with all goals of the PMP, as well as the policies of other land use plans and policies that are applicable to the project site, including the Coastal Act. The proposed project's objectives include improving access to the waterfront and Embarcadero by activating the project site, and project design would implement sustainable practices (e.g., LEED silver certification or equivalent, high-efficiency lighting, indoor water reduction) in all elements of project design and construction, leading to a reduction in energy use, water use, and solid waste generation as compared to standard hotel and visitor-serving

developments. Therefore, while the proposed land use designations would be inconsistent with the land use designations of the governing land use document (the PMP), the proposed project includes a Port Master Plan Amendment (PMPA) to change certain land use and water use designations and would be consistent with the overall goals and policies of these relevant plans.

The proposed project would comply with SDAPCD Rules that have been implemented to reduce regional particulate matter and ozone emissions, including those described in Section 4.2.3.3. The proposed project would implement fugitive dust control measures during construction, and would use low-VOC coatings during construction (see **MM-AQ-2** discussed below), and would implement various design features that go well beyond existing code and regulatory requirements, including pursuing LEED Silver certification, which would reduce long-term energy and water combustion. While the proposed project would result in a net increase in average daily traffic of approximately 8,470 over existing conditions, emissions would be below threshold levels for all criteria pollutants before mitigation during operations, and emissions of all pollutants would be below threshold levels for all criteria pollutants after mitigation during construction.

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 re-designated uses at the project site. With mitigation, 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. The proposed project would re-designate Commercial Recreation to Street, Street to Commercial Recreation, Specialized Berthing to Recreational Boat Berthing, Ship Navigation Corridor to Recreational Boat Berthing, Promenade to Commercial Recreation, Park to Commercial Recreation, and Commercial Recreation to Park. 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 the proposed land use and the intensity proposed are not consistent with the current RAQS and SIP.

Mitigation Measures

For **Impact-AQ-1**:

MM-AQ-1: Update the RAQS and SIP with New Growth Projections. Prior to the San Diego Air Pollution Control District's next review of the RAQS, the District shall coordinate with the San Diego Air Pollution Control District to amend the growth assumptions using the Port Master Plan Amendment. This includes changing the designation of Commercial Recreation to Street, Street to Commercial Recreation, Specialized Berthing to Recreational Boat Berthing, Ship Navigation Corridor to Recreational Boat Berthing, Promenade to Commercial Recreation, Park to Commercial Recreation, and Commercial Recreation to Park within the proposed project site.

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 the proposed project would no longer be inconsistent. Therefore, after mitigation, **Impact-AQ-1** would be less than significant.

Threshold 2: Implementation of the proposed project would violate an air quality standard or contribute substantially to an existing or projected air quality standard.

Impact Discussion

Construction and operation of the proposed project have the potential to create air quality impacts by violating an air quality standard or contributing substantially to an existing or projected air quality violation. A discussion of construction- and operations-related impacts is presented below.

Construction

An estimate of emissions associated with project construction is presented in Table 4.2-9. As shown in Table 4.2-9, emissions during construction would be above San Diego County's SLTs for VOC emissions, but below San Diego County's SLTs for all other pollutants. Therefore, construction would violate the VOC air quality standard or contribute substantially to an existing or projected ozone violation. Impacts would be potentially significant and mitigation is required.

Note that during construction, a portion of the construction staging would occur at the R.E. Staite equipment staging lot. Other than employee parking and equipment staging, no improvements or construction activities would occur at this staging site. Staging off site would have minimal effects on air quality, as any emissions would be limited to periodic transport of equipment to the project site. Also, Phase 4 Site Work, which includes "Offsite Demolition/Grading/Utilities" over a 128-day period and "Site Improvements" over an 81-day period, includes all sewer work, both on site and immediately adjacent the project site, as each of these would be done within the same time period using the same equipment.

Table 4.2-9. Estimate of Construction Emissions Prior to Mitigation (pounds per day)

Construction Phase	VOC	NO_x	CO	SO_x	PM₁₀ Exhaust	PM₁₀ Dust	PM₁₀ Total	PM_{2.5} Exhaust	PM_{2.5} Dust	PM_{2.5} Total
Phase 1: Mobilization and Site Preparation										
Mobilization/Demolition	1	19	8	<1	1	11	12	1	4	5
Dewatering/Shoring	1	18	6	<1	<1	2	3	<1	1	1
Phase 2: Market-Rate Hotel Tower & Meeting Areas										
Excavation and Foundation	5	83	31	2	2	16	18	2	6	7
Structural Frame	2	18	18	1	1	4	5	1	1	2
Exterior Closure and Roofing	1	9	13	<1	<1	3	3	<1	1	1
Interior Rough-In (Elev./MEP/Framing)	<1	1	5	<1	<1	5	5	<1	1	1
Interior Construction/Finishes	69	8	10	<1	<1	2	2	<1	<1	1
MEP Systems	1	8	14	<1	<1	5	5	<1	1	2
Phase Completion Work	0	1	5	<1	<1	5	5	<1	1	1
Phase 3: Lower-Cost Visitor-Serving Hotel										
Foundations	1	8	6	<1	<1	1	1	<1	<1	<1
Structural Frame	1	4	5	<1	<1	1	1	<1	<1	<1
Exterior Closure	<1	5	6	<1	<1	<1	1	<1	<1	<1
Interior Construction/Finishes	10	6	7	<1	<1	1	1	<1	<1	<1
Phase Completion Work	0	6	7	<1	<1	1	1	<1	<1	<1
Phase 4: Site Work										
Offsite Demolition/Grading/Utilities	2	19	15	<1	1	8	8	1	4	4
Site Improvements	43	32	31	<1	2	3	4	2	1	2
Phase 5: Waterside Work										
Marina Construction	5	14	64	<1	<1	<1	<1	<1	<1	<1
Maximum Daily Construction	128	123	163	<1	3	29	32	3	9	12
San Diego County SLTs	75	250	550	150	--	--	100	--	--	55
<i>Exceed Significant Threshold?</i>	Yes	No	No	No	--	--	No	--	--	No

Source: ICF Emissions Modeling (Appendix D).

Notes: Maximum daily emissions for each pollutant varies. Totals may not add exactly due to rounding.

Operation

An estimate of emissions associated with project operations over existing conditions is presented in Table 4.2-10. Existing conditions are shown in Table 4.2-6. As shown in Table 4.2-10, emissions during project operations over existing conditions are anticipated to be below San Diego County's SLTs for all pollutants. Therefore, impacts are considered less than significant and no mitigation is required.

Table 4.2-10. Estimate of Operational Emissions Prior to Mitigation (pounds per day)

Element	Source	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Market-Rate Hotel Tower	Visitors (Vehicles)	17	49	127	<1	35	10
	Natural Gas	1	9	7	<1	1	1
	Consumer Products	17	0	0	<1	<1	<1
	Architectural Coatings	3	0	0	<1	<1	<1
	<i>Subtotal</i>	<i>37</i>	<i>58</i>	<i>134</i>	<i><1</i>	<i>35</i>	<i>10</i>
Lower-Cost Visitor-Serving Hotel	Visitors (Vehicles)	1	4	9	<1	3	1
	Natural Gas	0	3	2	<1	<1	<1
	Architectural Coatings	2	<1	<1	<1	<1	<1
	Consumer Products	<1	<1	<1	<1	<1	<1
	<i>Subtotal</i>	<i>4</i>	<i>6</i>	<i>12</i>	<i><1</i>	<i>3</i>	<i>1</i>
Marina	Visitors (Vehicles)	<1	1	4	<1	1	<1
	Natural Gas	<1	3	2	<1	<1	<1
	Consumer Products	1	<1	<1	<1	<1	<1
	Architectural Coatings	<1	<1	<1	<1	<1	<1
	Ferry Service	2	13	12	<1	<1	<1
	Recreational Boating	9	125	34	<1	8	7
	<i>Subtotal</i>	<i>14</i>	<i>143</i>	<i>53</i>	<i><1</i>	<i>8</i>	<i>7</i>
Public Open Space	Visitors (Vehicles)	<1	<1	1	<1	<1	<1
	<i>Subtotal</i>	<i><1</i>	<i><1</i>	<i>1</i>	<i><1</i>	<i><1</i>	<i><1</i>
Existing Plus Project Daily		55	207	199	1	46	18
Existing Daily ¹		6	44	19	<1	3	2
Net New Over Existing		49	163	180	1	44	15
Significance Threshold		75	250	550	150	100	55
<i>Exceed Significant Threshold?</i>		<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: ICF Emissions Modeling (Appendix D).

¹ Existing daily emissions shown in Table 4.2-6.

Notes: Totals may not add exactly due to rounding.

Level of Significance Prior to Mitigation

Construction

Construction of the proposed project would violate an air quality standard or contribute substantially to an existing or projected air quality standard. Potentially significant impact(s) include:

Impact-AQ-2: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Construction. Project emissions during construction, before mitigation, would exceed the San Diego County SLTs for VOC. The contribution of project-related emissions is considered significant because the project would exceed thresholds 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.

Operation

Operation of the proposed project would not violate an air quality standard or contribute substantially to an existing or projected air quality standard. Impacts would be less than significant.

Mitigation Measures

Construction

For **Impact-AQ-2**:

MM-AQ-2: Use Low-VOC Interior and Exterior Coatings During Construction. During construction, the project proponent shall use low-VOC coatings for all surfaces that go beyond the requirements of San Diego Air Pollution Control District Rule 67.0, and have a VOC content of 75 grams per liter or less. Prior to the commencement of construction activities, the project proponent shall submit a list of coatings to be used and their respective VOC content to the District's Development Services Department and shall submit a report verifying the use of said low-VOC coatings. The District may conduct inspections during construction to verify the use of low-VOC coatings.

MM-AQ-3: Limit Soil Hauling Truck Counts during Excavation to Reduce Daily Construction-Related Emissions. During construction, the project proponent shall ensure that daily heavy-duty truck counts during soil hauling do not exceed 85 trucks per day. During excavation work (Phase 2.1), the project proponent shall submit record of daily truck counts to the District's Development Services Department. The District may conduct inspections during construction to verify the number of trucks do not exceed 85 on a given day.

Operation

No mitigation is required.

Level of Significance after Mitigation

Construction

As shown in Table 4.2-11, with implementation of **MM-AQ-2** and **MM-AQ-3**, construction-related VOC emissions would be reduced to below San Diego County SLTs after mitigation (**Impact-AQ-2**).

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.

Operation

Impacts would be less than significant.

Table 4.2-11. Estimate of Construction Emissions after Mitigation (pounds per day)

Construction Phase	VOC	NO_x	CO	SO_x	PM₁₀ Exhaust	PM₁₀ Dust	PM₁₀ Total	PM_{2.5} Exhaust	PM_{2.5} Dust	PM_{2.5} Total
Phase 1: Mobilization and Site Preparation										
Mobilization/Demolition	1	19	8	<1	1	11	12	1	4	5
Dewatering/Shoring	1	18	6	<1	<1	2	3	<1	1	1
Phase 2: Market-Rate Hotel Tower & Meeting Areas										
Excavation and Foundation	5	83	31	2	2	16	18	2	6	7
Structural Frame	2	18	18	1	1	4	5	1	1	2
Exterior Closure and Roofing	1	9	13	<1	<1	3	3	<1	1	1
Interior Rough-In (Elev./MEP/Framing)	<1	1	5	<1	<1	5	5	<1	1	1
Interior Construction/Finishes	21	8	10	<1	<1	2	2	<1	<1	1
MEP Systems	1	8	14	<1	<1	5	5	<1	1	2
Phase Completion Work	0	1	5	<1	<1	5	5	<1	1	1
Phase 3: Lower-Cost Visitor-Serving Hotel										
Foundations	1	8	6	<1	<1	1	1	<1	<1	<1
Structural Frame	1	4	5	<1	<1	1	1	<1	<1	<1
Exterior Closure	<1	5	6	<1	<1	<1	1	<1	<1	<1
Interior Construction/Finishes	3	6	7	<1	<1	1	1	<1	<1	<1
Phase Completion Work	0	6	7	<1	<1	1	1	<1	<1	<1
Phase 4: Site Work										
Offsite Demolition/Grading/Utilities	2	19	15	<1	1	8	8	1	4	4
Site Improvements	15	32	31	<1	2	3	4	2	1	2
Phase 5: Waterside Work										
Marina Construction	5	14	64	<1	<1	<1	<1	<1	<1	<1
Maximum Daily Construction	45	123	163	1<1	3	29	32	3	9	12
San Diego County SLTs	75	250	550	150	-	-	100	-	-	55
<i>Exceed Significant Threshold?</i>	No	No	No	No	-	-	No	-	-	No

Source: ICF Emissions Modeling (Appendix D).

Notes: Maximum daily emissions for each pollutant varies. Totals may not add exactly due to rounding.

Threshold 3: 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

The SDAB is currently in nonattainment for O₃ under NAAQS and for O₃, PM₁₀, and PM_{2.5} under CAAQS, as a result of past and present projects, and will be further impeded by reasonably foreseeable future projects (see Chapter 5, *Cumulative Impacts*). As discussed above and shown in Table 4.2-9, construction-related criteria pollutant emissions are expected to exceed the County SLT for VOC emissions, a precursor to a nonattainment pollutant, prior to mitigation (**Impact-AQ-2**); however, as shown in Table 4.2-10, criteria pollutant emissions are expected to be below County SLTs during operations. With **MM-AQ-2** and **MM-AQ-3** incorporated, emissions of VOC are expected to be reduced below County SLTs during construction. Therefore, after mitigation, proposed project construction air quality impacts would be less than significant.

The projects identified by the District within a 0.25-mile radius of the project site include the following: Ballpark Village Parcel C (cumulative project #4), Ballpark Village Parcel D (cumulative project #5), Tenth Avenue Marine Terminal Redevelopment Plan and Demolition and Initial Rail Component Project (cumulative project #17), San Diego Convention Center Phase III Expansion and Hotel (cumulative project #89), and the Mitsubishi Cement corporation (cumulative project #93). Construction of one or more of these projects would potentially overlap with the construction of the proposed project, which is scheduled to occur between 2018 and 2021.

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. However, the proposed project would result in a cumulatively considerable net increase of VOC emissions, which is a nonattainment pollutant (**Impact-AQ-3**). With **MM-AQ-2** and **MM-AQ-3** incorporated, emissions of VOC are expected to be reduced below County SLTs during construction after mitigation.

Operation

In terms of operations, the proposed project would not exceed thresholds for any nonattainment pollutant, would conform to the RAQS and/SIP after mitigation, and would not create a CO hotspot (see below). As such, the proposed project is not expected to result in a cumulatively considerable net increase in a nonattainment pollutant. This impact is considered less than significant for operations, and no mitigation is required.

Level of Significance Prior to Mitigation

Construction

Construction of the proposed project would result in a cumulatively considerable net increase of VOC, which is a nonattainment pollutant. Potentially significant impact(s) include:

Impact-AQ-3: Cumulative Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Construction. Project emissions during construction, before mitigation, would exceed the San Diego County SLTs for VOC, and when combined with other nearby past, present, and probable future projects, the proposed project's contribution would be cumulatively considerable. The contribution of project-related emissions is considered significant because the project would exceed thresholds 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.

Operation

Operation of the proposed project would not 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.

Mitigation Measures

Construction

For **Impact-AQ-3**:

Implement **MM-AQ-2** and **MM-AQ-3**, as described under Threshold 2.

Operation

No mitigation is required.

Level of Significance after Mitigation

Construction

As shown in Table 4.2-11, **Impact-AQ-3** would be reduced to a less-than-significant level with implementation of **MM-AQ-2** and **MM-AQ-3**, because mitigation would reduce construction-related emissions below County SLTs for VOC. Therefore, when combined with contributions of nonattainment pollutant emissions of past, present, and probable future projects, the proposed project contribution of a nonattainment pollutant would be less than cumulatively considerable during construction and impacts are considered less than significant.

Operation

Impacts would be less than significant.

Threshold 4: Implementation of the proposed project would expose sensitive receptors to substantial pollutant concentrations.

Impact Discussion

Toxic Air Contaminants

DPM, which is classified as a carcinogenic toxic air contaminant by ARB, is the primary 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. For purposes of analysis, diesel PM10 exhaust emissions presented in this analysis are used as a surrogate for DPM, consistent with OEHHA guidance (OEHHA 2015). The closest sensitive land uses within the vicinity of the project site include Embarcadero Marina Park South and the SDCC, which are immediately adjacent to the project site, and multi-family residential, approximately 900 feet north of the project site, across Harbor Drive.

Construction activities would be short term, occurring over an approximately 2.6-year (134-week) period, which is much shorter than the assumed 9-, 30-, or 70-year exposure period typically used to estimate lifetime cancer risks. Receptors that access the Embarcadero Promenade and waterfront areas immediately adjacent to the project site 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, Table 4.2-9 indicates that diesel exhaust (PM10 exhaust) associated with construction activities would be minimal (less than 3 pounds per day), and diesel-vehicle activity on public roadways would be minimal, comprising delivery and material haul trips not in proximity of residential uses. Furthermore, diesel-equipment activity on 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.

Once the proposed project is operational, TAC emissions would result primarily from material deliveries along public roads as well as from exhaust associated with recreational boating. In both instances, emissions would be short term 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 ARB'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. Also, the predominant wind direction at the project site is west-northwest, which 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 TACs would be less than significant.

Carbon Monoxide Hotspots

Additional traffic created by the proposed project would have the potential to create CO hotspots at nearby roadways and intersections. The intersection that would show the most congestion would be the Harbor Drive and Hawthorn Street intersection. To provide a conservative analysis, CO concentrations at this intersection were modeled to estimate pollutant concentrations for existing plus project and future build conditions (2021 and 2035). Table 4.2-12 presents the results of the CO hotspot modeling and indicates that implementation of the proposed project would not result in violations of the State or federal 1- or 8-hour CO standards during the existing plus project, 2021 near-term, and 2035 future year conditions. Consequently, the impact of traffic conditions from the

proposed project on ambient CO levels is considered less than significant and no mitigation is required.

Table 4.2-12. Modeled CO Concentrations at Receptors in the Vicinity of Harbor Drive & Hawthorn Street under Project Conditions (parts per million)

Intersection	Receptor	Existing Plus Project 2016		Near-Term 2021		Future Year 2035	
		1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
Harbor Drive & Hawthorn Street	1	4.2	2.9	4.1	2.9	3.5	2.5
	2	4.2	2.9	4.1	2.9	3.5	2.5
	3	4.2	2.9	4.1	2.9	3.5	2.5
	4	4.5	3.2	4.4	3.1	3.7	2.6
<i>NAAQS/CAAQS</i>		<i>35/20</i>	<i>9/9.0</i>	<i>35/20</i>	<i>9/9.0</i>	<i>35/20</i>	<i>9/9.0</i>
<i>Exceed Standard?</i>		<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: Appendix D.
Note: Background concentrations of 3.0 and 2.1 ppm were added to the modeling 1- and 8-hour results, respectively. Concentrations shown in ppm.

Criteria Air Pollutants

High levels of criteria pollutants are associated with some form of health risk (e.g., asthma, asphyxiation). Adverse health effects associated with criteria pollutant emissions 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]). Moreover, ozone precursors (VOC and NO_x) affect air quality on a regional scale. Health effects related to ozone are therefore the product of emissions generated by numerous sources throughout a region. As part of the setting and updating of the NAAQS, EPA develops and considers quantitative characterizations of exposures and associated risks to human health or the environment associated, known as an HREA, with recent air quality conditions and with air quality estimated to just meet the current or alternative standard(s) under consideration (EPA 2016b). The HREA estimates population exposure to and resulting mortality and morbidity health risks associated with the full range of observed pollutant concentrations, as well as incremental changes in exposures and risks associated with ambient air quality adjusted to just meeting the existing NAAQS and just meeting potential alternative NAAQS under consideration (EPA 2014). In terms of analyzing project-related emission, the air quality thresholds utilized herein (see Table 4.2-8) are based on EPA's NSR program, which sets standards consistent with the NAAQS. However, existing models have limited sensitivity to small changes in criteria pollutant concentrations and, as such, translating project-generated criteria pollutants to specific health effects would not produce meaningful information, as project-related emissions are unlikely show up in any regional model. In other words, increases in regional air pollution from project-generated VOC and NO_x would have no effect on specific human health outcomes that could be attributed to specific project emissions. Other criteria pollutant emissions, including CO, PM₁₀, and PM_{2.5}, generally affect air quality on a localized scale. Health effects related to localized pollutants are the product of localized sources and emissions generated by numerous sources throughout a region. Certain air quality models, particularly dispersion models, have the ability to translate project-generated localized pollutants to specific localized health effects, such as nearby exposure to DPM, but these models have limited to

no ability to translate project-generated pollutants to specific regional health effects.

As shown in Tables 4.2-9 and 4.2-11, construction of the proposed project would significantly increase emissions of ozone precursors (VOC) prior to mitigation, but mitigation would reduce emissions of ozone (VOC) to below thresholds. Furthermore, as shown in Table 4.2-10, operation of the proposed project would not significantly increase emissions of ozone precursors (VOC and NO_x). Project-generated ozone precursors could increase photochemical reactions and the formation of tropospheric ozone, which, at certain concentrations, could lead to respiratory symptoms (e.g., coughing), decreased lung function, and inflammation of airways. Although these health effects are associated with ozone, the impacts are a result of cumulative and regional VOC and NO_x emissions. However, the incremental contribution of the project to specific health outcomes related to criteria pollutant emissions would be limited and any effects thereof would be below any health-based significance threshold (e.g., NAAQS and CAAQS). However, because the project would result in emissions below health-based thresholds (SDAPCD Trigger Levels and County SLTs; see Table 4.2-8) for VOC and NO_x, operation of the proposed project would not result in adverse health effects associated with criteria pollutant emissions.

Moreover, operation of the proposed project would not result in adverse health effects on the nearby populations associated with localized PM exhaust and CO NAAQS and CAAQS. Operation of the proposed project would result in emissions of localized pollutants (CO, PM₁₀, and PM_{2.5}) far below thresholds. Consequently, the health-related impacts of the proposed project's localized criteria air pollutant emissions are considered less than significant.

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, buildings constructed prior to 1977 that would be demolished by the project may have used ACM and could expose receptors to asbestos, which may become airborne with other particulates during demolition.

A discussion of asbestos-related impacts is presented in Section 4.7 of the Draft EIR, *Hazards and Hazardous Materials*. As discussed therein, historical aerial photographs indicate that existing structures on the project site were constructed after 2000 and are therefore are not anticipated to contain ACM or lead-based paint (Appendix H). As a result, an accidental release of asbestos or lead would not occur during construction of the proposed project.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant.

Impact-AQ-2: Emissions in Excess of VOC Thresholds During Proposed Project

Construction. Project emissions during construction, before mitigation, would exceed the San Diego County SLTs for VOC. While the incremental contribution to health effects from VOC cannot be traced solely to the proposed project, the contribution of project-related emissions is considered significant because the project would exceed thresholds 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-2**:

Implement **MM-AQ-2** and **MM-AQ-3**, as described under Threshold 2.

Level of Significance after Mitigation

As shown in Table 4.1-11, **Impact-AQ-2** would be less than significant after implementation of mitigation measure **MM-AQ-2** because mitigation would reduce VOC emissions to below the applicable thresholds. As such, the contribution of project-related emissions would not exceed thresholds 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. The proposed project's construction impact related to exposing sensitive receptors to substantial pollutant concentrations would be less than significant.

Threshold 5: Implementation of the proposed project would not create objectionable odors 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 ARB's *Air Quality and Land Use Handbook*, land uses associated with odor complaints typically include sewage treatment plants, landfills, recycling facilities, and manufacturing (ARB 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 and boating activity. However, odor impacts would be limited to the recreational areas, circulation routes, parking areas, and areas immediately adjacent to project operations. Although such brief exhaust odors may be considered adverse, 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 create objectionable odors affecting a substantial number of people. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

4.3.1 Overview

This section describes the existing conditions and applicable laws and regulations for biological resources, and analyzes if 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 community; (3) have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (CWA) through direct removal, filling, hydrological interruption, or other means; (4) result in substantial interference with the movement of 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; and (5) 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, or state 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 survey. The results of the terrestrial biology desktop review and survey are incorporated into this EIR section by reference. In addition, Marine Taxonomic Services performed a marine biological survey to identify marine resources within the project site (Appendix E-1), Everest International Consultants evaluated additional propeller wash impacts through a propeller wash study (Appendix E-2), and Marine Taxonomic Services prepared a Propwash Analysis and Potential Eelgrass Impacts Memorandum (Appendix E-3).

Table 4.3-1 summarizes significant impacts and mitigation measures discussed in detail in Section 4.3.4.3, *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: Water Quality Impairment Impacts on California Least Tern and California Brown Pelican Foraging	MM-BIO-1: Avoid California Least Tern Breeding Season or Implement Construction Measures to Eliminate Impacts on California Least Tern Breeding Implement MM-HWQ-1 and MM-HWQ-2	Less than Significant	Avoidance of construction activities within the nesting season for the California least tern or compliance with construction measures in accordance with CWA Section 401, NPDES permit, and Stormwater Management and Discharge Control Ordinance would avoid any impact on California

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
			least terns and the California brown pelican.
Impact-BIO-2: Potential Disruption or Injury of California Least Tern, Green Sea Turtle, and Marine Mammals During Pile Driving Activities	MM-BIO-2: Implement a Marine Mammal and Green Sea Turtle Monitoring Program During Pile Driving Activities Implement MM-BIO-1	Less than Significant	Implementation of a marine mammal and green sea turtle monitoring program approved by the District and avoiding the nesting season or complying with regulations would avoid any impact on California least terns, marine mammals, and green sea turtles.
Impact-BIO-3: Potential Disturbance or Destruction of Nests Protected by the Migratory Bird Treaty Act and California Fish and Game Code	MM-BIO-3: Avoid Nesting Season for Birds or Conduct Preconstruction Nesting Surveys	Less than Significant	Compliance with the MBTA and California Fish and Game Code would avoid any impact on nesting birds.
Impact-BIO-4: Reflective Materials and Increased Bird Strikes (market-rate hotel tower, lower-cost visitor-serving hotel, and retail development)	MM-BIO-4: Implement Bird Strike Reduction Measures on New Structures	Less than Significant	Implementation of specific design strategies from the American Bird Conservancy's <i>Bird-Friendly Building Design</i> would ensure that birds in flight recognize structures from the open sky. Performance monitoring would also be required.
Impact-BIO-5: Loss of Open Water Habitat from Marina Operations	MM-BIO-5: Implement Overwater Coverage and Structural Fill Mitigation in Coordination with NMFS, CDFW, USFWS, RWQCB, USACE, and the District to Compensate for Loss of Open Water Habitat and Function	Less than Significant	Mitigation would adequately compensate for loss of open water habitat as a result of marina operations by providing a 1:1 ratio mitigation action in coordination with resource agencies.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-BIO-6: Loss of Open Water Function from Structural Fill	MM-BIO-5: Implement Overwater Coverage and Structural Fill Mitigation in Coordination with NMFS, CDFW, USFWS, RWQCB, USACE, and the District to Compensate for Loss of Open Water Habitat and Function	Less than Significant	Mitigation would adequately compensate for the increase in structural fill by providing a 1:1 ratio mitigation action in coordination with resource agencies.
Impact-BIO-7: Potential Reduction in Eelgrass Habitat and Productivity During Construction	MM-BIO-6: Develop an Eelgrass Mitigation and Monitoring Plan in Compliance with the California Eelgrass Mitigation Policy MM-BIO-7: Avoid or Mitigate Impacts on Eelgrass due to Anchored Barges, Boat Navigation, and Propeller Wash	Less than Significant	Mitigation and monitoring and impact avoidance would adequately address and compensate for loss of eelgrass habitat as a result of construction of the proposed project.
Impact-BIO-8: Potential Loss of Eelgrass Habitat Due to Increased Boat Traffic, Marina Operations, and Increased Shade from Hotel Operations	MM-BIO-8: Implement Boater Education and Marina Lease Requirements, and Install Navigation Aids and Demarcate Eelgrass Adjacent to the Marina Implement MM-BIO-6 and MM-HWQ-1	Less than significant	Navigation aids would minimize boater disturbance on eelgrass beds. Mitigation and monitoring would adequately address and compensate for loss of eelgrass habitat resulting from landside and waterside operations. The measure would minimize surface water impairment through the implementation of a Marina Best Management Practice Plan and copper reduction measures to avoid any potential water quality impacts on eelgrass beds as a result of the operation of the proposed marine expansion.

4.3.2 Existing Conditions

4.3.2.1 Terrestrial and Marine Environment

The terrestrial environs associated with the landside component of the proposed project, including the offsite utility improvement and staging areas, is completely urban/developed. This portion of the project site consists of paved parking areas, roadway, buildings, and landscaped ornamental vegetation and is subject to frequent landscape maintenance activities and recreational human visitation. The landside portion is devoid of any natural vegetation, sensitive vegetation communities, natural wildlife habitat, and jurisdictional waters and wetlands.

The biological environs associated with the marine component of the proposed project currently includes an active marina with slips for private vessels and a ferry landing. Habitat types include unvegetated soft bottom, vegetated soft bottom (including eelgrass beds), docks and piles, armored rocky bottom, intertidal rip-rap and seawall, 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 open water areas for avian species, including the federally and state-listed as endangered California least tern (*Sterna antillarum browni*) and the state-protected California brown pelican (*Pelecanus occidentalis californicus*). 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 gets 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 E-1.

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.

Plant Species

Terrestrial

The desktop analysis for sensitive plant species was performed for this project by reviewing the California Natural Diversity Database (CNDDDB) and CNPS database, and requesting an official threatened and endangered species list from the U.S. Fish and Wildlife Service's (USFWS) Information, Planning, and Consultation System (IPAC). The CNDDDB record search for sensitive terrestrial plant species was conducted for the project site and a 1-mile radius (CDFW 2016). The CNPS sensitive plant species search was conducted for the U.S. Geological Survey's Point Loma, California 7.5-minute quadrangle map. Due to the varying topography occurring within the Point

Loma quadrangle map, the search was further refined to only include species with habitat requirements within 0 and 20 feet elevation, which would exclude plants that may occur in habitats that vary greatly from the current and historical conditions at the project site. The USFWS list of threatened and endangered species was generated by creating a polygon for the proposed project area through the IPAC web application tool. This search criteria yields a total of 32 sensitive plant species. A full description of these species and their potential to occur within the project site are presented in Table 4.3-2.

On October 14, 2016, ICF biologists performed a reconnaissance-level field survey of the landside project area. No sensitive plant species were observed during the reconnaissance survey. Due to the highly developed and maintained nature of the project area, sensitive plant species are not expected to occur in the project site. The following landscaped ornamental plant species were noted during the site reconnaissance survey: lily of the Nile (*Agapanthus orientalis*), eucalyptus (*Eucalyptus* sp.), bird of paradise (*Strelitzia reginae*), Indian hawthorn (*Raphiolepis indica*), natal plum (*Carissa macrocarpa*), and a landscaped species of Bermuda grass (*Cynodon dactylon* cultivars).

Table 4.3-2. Sensitive Plant Species with Potential to Occur within the Project Site

Common Name (Scientific Name)	Sensitivity Code and Status	Habitat Preference/Requirements	Verified On Site (Yes/No)	Potential to Occur	Rationale
Red sand-verbena (<i>Abronia maritima</i>)	CRPR 4.2	Perennial herb. Coastal dunes; 0–100 m (0–328 ft). Blooming period: February–November.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
San Diego thorn-mint (<i>Acanthomintha ilicifolia</i>)	FT, SE, CRPR 1B.1	Annual herb. Prefers friable or broken clay soils in grassy openings in chaparral and coastal sage scrub, valley and foothill grassland, and vernal pools; 10–960 m (33–3,150 ft). Blooming period: April–June.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Nuttall's lotus (<i>Acmispon prostrates</i>)	CRPR 1B.1	Annual herb. Coastal dunes and sandy coastal scrub; 0–10 m (0–32 ft). Blooming period: March–July.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Shaw's agave (<i>Agave shawii</i> var. <i>shawii</i>)	CRPR 2B.1	Perennial leaf succulent. Coastal bluff scrub, coastal scrub; 10–120 m (32–393 ft). Blooming period: September–May.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
San Diego ambrosia (<i>Ambrosia pumila</i>)	FE, CRPR 1B.1	Rhizomatous herb. Sandy loam or clay soils in chaparral, coastal sage scrub, valley and foothill grassland, vernal pools; often in disturbed areas or sometimes alkaline areas. Can occur in creek beds, seasonally dry drainages, and floodplains; 20–415 m (66–1,362 ft). Blooming period: April–October.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Aphanisma (<i>Aphanisma blitoides</i>)	CRPR 1B.2	Annual herb. Sandy soils in coastal bluff scrub, coastal dunes, and coastal scrub; 1–305 m (3–1,000 ft). Blooming period: March–June.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Coastal dunes milk-vetch (<i>Astragalus tener</i> var. <i>titi</i>)	FE, SE, CRPR 1B.1	Annual herb. Often in vernal mesic areas in sandy coastal bluff scrub, coastal dunes, and mesic coastal prairie; 1–50 m (3–164 ft). Blooming period: March–May.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.

Common Name (<i>Scientific Name</i>)	Sensitivity Code and Status	Habitat Preference/Requirements	Verified On Site (Yes/No)	Potential to Occur	Rationale
Coulter's saltbush (<i>Atriplex coulteri</i>)	CRPR 1B.2	Perennial herb. Alkaline or clay soils in coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland; 3–460 m (9–1,509 ft). Blooming period: March–October.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
South coast saltscale (<i>Atriplex pacifica</i>)	CRPR 1B.2	Annual herb. Coastal bluff scrub, coastal dunes, coastal scrub, playas; 0–140 m (0–459 ft). Blooming period: March–October.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Golden-spined cereus (<i>Bergerocactus emoryi</i>)	CRPR 2B.2	Perennial stem succulent. Sandy soils in coastal scrub, chaparral, and closed-cone coniferous forest, moist ocean breezes may be a key to its habitat requirements; 3–395 m (9–1,295 ft). Blooming period: May–June.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Lewis' evening-primrose (<i>Camissoniopsis lewisii</i>)	CRPR 3	Annual herb. Sandy or clay soils in coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland; 0–300 m (0–984 ft). Blooming period: March–June.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Wart-stemmed ceanothus (<i>Ceanothus verrucosus</i>)	CRPR 2B.2	Evergreen shrub. Chaparral; 1–380 m (3–1247 ft). Blooming period: December–May.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Orcutt's pincushion (<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>)	CRPR 1B.1	Annual herb. Sandy soils in coastal bluff scrub and coastal dunes; 0–100 m (0–328 ft). Blooming period: January–August.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Salt marsh bird's-beak (<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>)	FE, SE, CRPR 1B.2	Hemiparasitic annual herb. Coastal dunes and coastal salt marshes and swamps; 0–30 m (0–98 ft). Blooming period: May–October.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.

Common Name (Scientific Name)	Sensitivity Code and Status	Habitat Preference/Requirements	Verified On Site (Yes/No)	Potential to Occur	Rationale
Orcutt's spineflower (<i>Chorizanthe orcuttiana</i>)	FE, SE, CRPR 1B.1	Annual herb. Sandy openings in closed-cone coniferous forest, maritime chaparral, and coastal scrub; 3–125 m (9–410 ft). Blooming period: March–May.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Seaside cistanthe (<i>Cistanthe maritima</i>)	CRPR 4.2	Annual herb. Sandy soils in coastal bluff scrub, coastal scrub, and valley and foothill grassland; 5–300 m (16–984 ft). Blooming period: February–August.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
San Diego sand aster (<i>Corethrogyne filaginifolia</i> var. <i>incana</i>)	CRPR 1B.1	Perennial herb. Coastal bluff scrub, chaparral, and coastal scrub; 3–115 m (9–377 ft). Blooming period: June–September.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
San Diego button-celery (<i>Eryngium aristulatum</i> var. <i>parishii</i>)	FE, SE, CRPR 1B.1	Annual/perennial herb. Mesic soils in coastal scrub, valley and foothill grassland, and vernal pools; 20–620 m (65–2,034 ft). Blooming period: April–June.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
San Diego barrel cactus (<i>Ferocactus viridescens</i>)	CRPR 2B.1	Stem succulent. Sandy to rocky areas; chaparral, coastal scrub, valley and foothill grassland, vernal pools; 3–450 m (9–1,476 ft). Blooming period: May–June.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Palmer's frankenia (<i>Frankenia palmeri</i>)	CRPR 2B.1	Perennial herb. Coastal dunes, coastal salt marshes and swamps, playas; 0–10 m (0–32 ft). Blooming period: May–July.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Beach goldenaster (<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>)	CRPR 1B.1	Perennial herb. Coastal chaparral, coastal dunes, and coastal scrub; 0–1,225 m (0–4,018 ft). Blooming period: March–December.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Vernal barley (<i>Hordeum intercedens</i>)	CRPR 3.2	Annual herb. Coastal dunes, coastal scrub, saline flats and depressions in valley and foothill grassland, and vernal pools; 5–1,000 m (16–3,280 ft). Blooming period: March–June	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.

Common Name (Scientific Name)	Sensitivity Code and Status	Habitat Preference/Requirements	Verified On Site (Yes/No)	Potential to Occur	Rationale
Southwestern spiny rush (<i>Juncus acutus</i> ssp. <i>leopoldii</i>)	CRPR 4.2	Perennial rhizomatous herb. Mesic soils in coastal dunes, alkaline seeps in meadows and seeps, and coastal salt marshes and swamps; 3–900 m (9–2,953 ft). Blooming period: May–June	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Robinson's pepper- grass (<i>Lepidium virginicum</i> var. <i>robinsonii</i>)	CRPR 4.3	Annual herb. Openings in chaparral and sage scrub; below 885 m (2,900 ft). Blooming Period: January–July.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Sea dahlia (<i>Leptosyne maritima</i>)	CRPR 2B.2	Perennial herb. Coastal bluff scrub and coastal scrub; 5–150 m (16–492 ft). Blooming period: March–May.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
California spineflower (<i>Mucronea californica</i>)	CRPR 4.2	Annual herb. Sandy soils in chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland; 0–1,400 m (0–4,592 ft). Blooming period: March–August.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Coast woolly-heads (<i>Nemacaulis denudata</i> var. <i>denudata</i>)	CRPR 1B.2	Annual herb. Coastal dunes; 0–100 m (0–328 ft). Blooming period: April–September.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Slender cottonheads (<i>Nemacaulis denudata</i> var. <i>gracilis</i>)	CRPR 2B.2	Annual herb. Coastal dunes, desert dunes, and Sonoran desert scrub; -50–400 m (164–1,312 ft). Blooming period: March–May.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Short-lobed broomrape (<i>Orobancha parishii</i> ssp. <i>brachyloba</i>)	CRPR 4.2	Parasitic perennial herb. Sandy coastal bluff scrub, coastal dunes, and coastal scrub; 3–305 m (9–1,000 ft). Blooming period: April–October.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Brand's star phacelia (<i>Phacelia stellaris</i>)	CRPR 1B.1	Annual herb. Coastal dunes, coastal scrub; 1–400 m (3–1,312 ft). Blooming period: March–June	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.

Common Name (<i>Scientific Name</i>)	Sensitivity Code and Status	Habitat Preference/Requirements	Verified On Site (Yes/No)	Potential to Occur	Rationale
Oil neststraw (<i>Stylocline citroleum</i>)	CRPR 1B.1	Annual herb. Clay soils in chenopod scrub, coastal scrub, and valley and foothill grassland, associated with oilfields; 50–400 m (164–1,312 ft). Blooming period: March–April.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Estuary seablite (<i>Suaeda esteroa</i>)	CRPR 1B.2	Perennial herb. Coastal salt marshes and swamps; 0–5 m (0–16 ft). Blooming period: May–January.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Sources: USFWS 2016; CNPS 2016; CDFW 2016. m = meters; ft = feet Sensitivity Status Key Federal: Federal Endangered Species Act (ESA) Threatened or Endangered State: California Endangered Species Act (CESA) Threatened or Endangered <i>Federal</i> FE – listed as endangered under the federal Endangered Species Act. FT – listed as threatened under the federal Endangered Species Act. <i>State</i> 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 2: Plants rare, threatened, or endangered in California, but more common elsewhere 3: Plants for which we need more information – review list. 4: Plants of limited distribution a watch list. Decimal notations: .1 – Seriously endangered in California, .2 – Fairly endangered in California, .3 – Not very endangered in California.		

Marine

Marine biological surveys were performed in a two-step process. Initially biologists from Marine Taxonomic Services performed a side-scan survey to identify and map all subtidal habitat types within the project site. Following the side-scan survey, a scuba survey was performed throughout the project site to verify existing habitat, document species observed, and assess the potential for sensitive marine species to occur on site. The results are summarized below, and a detailed explanation of survey methods and results is provided in Appendix E-1.

The waterside component of the project site contains a number of habitat types, including armored rocky bottom, docks and piles, unvegetated soft bottom, vegetated soft bottom, intertidal rip-rap and seawall, and open water. 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 (*Zostera marina*) beds were observed and documented as the predominant plant species occurring within the vegetated soft bottom habitat type. The eelgrass beds occur adjacent to the proposed marina footprint to the south at the Campbell Shipyard Mitigation Cap Site. Open water habitat consists of any area within the water column that lacks any structure or vegetation throughout the project site. Additional eelgrass beds occur to the northwest outside of the project boundary. Although these beds do not occur within the proposed project footprint, potential impacts from the proposed landside project to this area are discussed in impact Threshold 2 in Section 4.3.4.3.

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 CWA (see Section 4.3.3, *Applicable Laws and Regulations*).

Wildlife Species

Terrestrial

The desktop analysis for sensitive wildlife species was performed by reviewing the CNDDDB and requesting an official threatened and endangered species list from USFWS IPAC. A CNDDDB record search for special-status terrestrial wildlife species was conducted for the project site and a 1-mile radius (CDFW 2016). The USFWS list of threatened and endangered species was generated by creating a polygon for the project site through the IPAC web application tool. Eleven special-status wildlife species have been recorded within 1 mile of the project site. A full description of these species and their potential to occur within the project site are presented in Table 4.3-3.

The following wildlife species were observed during the site reconnaissance survey performed on October 14, 2016: western gull (*Larus occidentalis*), rock dove (*Columbia livia*), American crow (*Corvus brachyrhynchos*), and Brewer's blackbird (*Euphagus cyanocephalus*). No sensitive wildlife species were observed during the survey. The majority of the special-status species would not occur

within the project site because it does not contain suitable habitat and is heavily disturbed from human visitation and frequent landscaping activities.

Based on desktop review and site conditions, the landside portion of the project site contains suitable foraging habitat for American peregrine falcon (*Falco peregrines anatum*), and the adjacent open-water marine portion of the project area provides suitable foraging habitat for California least tern and California brown pelican. The project site has moderate potential for foraging for American peregrine falcon due to the open space available at the Embarcadero Marina Park South (EMPS) and the site's proximity to high-rise buildings, which have been used by the falcon for hunting in San Diego. The landside portion of the project site does not contain any suitable foraging habitat for California least tern or California brown pelican because both birds feed almost exclusively on small fish species.

The landside portion of the project site is subject to recreational human visitation and routine landscape maintenance activities. The urban setting and frequent disturbances of the project area provide low-quality wildlife habitat for non-avian species. Many of the adult ornamental trees found along Convention Way and within the EMPS provide suitable nesting habitat for a number of common bird species including, but not limited to, black-crowned night heron (*Nycticorax nycticorax*), house finch (*Haemorrhous mexicanus*), snowy egret (*Egretta thula*), great blue heron (*Ardea herodias*), red-tailed hawk (*Buteo jamaicensis*), and American crow.

Table 4.3-3. Sensitive Wildlife Species with Potential to Occur within the Project Site

Common Name (<i>Scientific Name</i>)	Sensitivity Code and Status	Habitat Preference/Requirements	Verified On Site (Yes/No)	Potential to Occur	Rationale
Reptiles					
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	CSC	Found in arid and semi-arid climate conditions in chaparral, coastal sage scrub, primarily below 2,000 feet in elevation. Critical factors are the presence of loose soils with a high sand fraction; an abundance of native ants or other insects, especially harvester ants (<i>Pogonomyrmex</i> spp.), and the availability of both sunny basking spots and dense cover for refuge.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Green sea turtle (<i>Chelonia mydas</i>)	FT	Typically occurs within southern San Diego Bay within or adjacent to the shallow eelgrass beds. Individuals may enter or leave San Diego Bay and can be found between San Diego and Mexico.	No	Yes	Green sea turtles may periodically occur on site as they are found throughout San Diego Bay; however, the project area does not offer ideal habitat requirements for the species to preferentially visit for foraging opportunities.
Birds					
Burrowing owl (<i>Athene cunicularia</i>)	CSC	Prairies, grasslands, lowland scrub, agricultural lands, coastal dunes, desert floors, and some artificial, open areas. They require large, open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. They use rodent or other burrows for roosting and nesting cover and are also known to use pipes, culverts, and nest boxes where burrows are scarce.	No	None	Site consists of highly developed surroundings and open water. No burrows were detected during the site visit; due to routine landscaping, burrows are unlikely at project site. Resident owls in Coronado are unlikely to forage at project site.

Common Name (<i>Scientific Name</i>)	Sensitivity Code and Status	Habitat Preference/Requirements	Verified On Site (Yes/No)	Potential to Occur	Rationale
Swainson's hawk (<i>Buteo Swainsoni</i>)	ST	Open country of the western U.S. and Canada for breeding, from low to moderate elevations. Prairies, rangelands, meadows, open areas with scattered trees. Cultivated lands attract this hawk in some areas, where the human disturbance of agriculture causes concentrations of insects and rodents.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Western snowy plover (<i>Charadrius nivosus</i> ssp. <i>nivosus</i>)	FT	Requires open, relatively flat areas with little or no vegetation, including undisturbed beaches, salt flats, playas, dredge spoils, levees, and river bars. Winter distribution is more coastal, and may include sewage treatment ponds and agricultural wastewater sites.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	FT SE	Only a handful of small populations remain in all of California today. Losses are tied to obvious loss of nearly all suitable habitat, but other factors may also be involved. Relatively broad, well-shaded riparian forests are utilized, although it tolerates some disturbance. A specialist to some degree on tent caterpillars.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
American peregrine falcon (<i>Falco peregrines anatum</i>)	FPS	Occurs along coast; breeds in woodland, forest, and coastal habitats. Riparian areas are important year-round habitats.	No	Breeding: None Foraging: Moderate	Site is urban/developed. Current site conditions lack suitable natural or artificial cliff-like ledges for nesting. Project location has potential for foraging only. Falcon preys upon bird species commonly associated with urban areas.

Common Name (Scientific Name)	Sensitivity Code and Status	Habitat Preference/Requirements	Verified On Site (Yes/No)	Potential to Occur	Rationale
California brown pelican (<i>Pelecanus occidentalis californicus</i>)	FPS	Nesting typically occurs on islands on ground or within shrubs. No nesting occurs in San Diego Bay. Commonly observed foraging throughout San Diego Bay and near coastal areas for schooling fish species like anchovy, sardine, and mackerel.	No	Breeding: None Foraging: Yes	Pelicans are commonly found throughout San Diego Bay. Foraging potential is high anywhere schooling fish species can be found. Birds also commonly associate with fishing boats as recreational fishermen discard bait.
Coastal California gnatcatcher (<i>Poliophtila californica californica</i>)	FT CSC	Occurs within coastal sage scrub along the California coast. Prefers low-lying vegetation dominated by sagebrush, buckwheat, salvia, and prickly-pear cactus. Forages almost exclusively on insects.	No	None	Site is urban/developed. Suitable habitat for this species does not exist in the project area.
California least tern (<i>Sterna antillarum browni</i>)	FE SE FPS	Shallow estuaries, lagoons, and long marine shores.	No	Breeding: None Foraging: Yes	Site is urban/developed. Species nests in open areas relatively free of human disturbance on sandy or gravelly substrate, which may exist on some rooftop areas. Foraging occurs over open water for small fish species. Foraging and resting potential along rip-rap within project area.
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE SE	Riparian thickets either near water or in dry portions of river bottoms; nests along margins of bushes and forages low to the ground; may also be found using mesquite and arrow weed in desert canyons.	No	Nesting: None Foraging: None	Site is urban/developed. Riparian vegetation does not occur within or adjacent to the project area.

Common Name (<i>Scientific Name</i>)	Sensitivity Code and Status	Habitat Preference/Requirements	Verified On Site (Yes/No)	Potential to Occur	Rationale
Mammals					
Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>)	CSC	Favors rocky desert areas with high cliffs or rock outcrops for roosts; roosts in crevices; reproduces in crevices, caverns, or buildings.	No	Roosting: None Foraging: None	Site is urban/developed. Structures on-site are not suitable for roosting and area is unlikely for foraging.
Pacific pocket mouse (<i>Perognathus longimembris pacificus</i>)	FE	Coastal strand, coastal dunes, river alluvium, and coastal sage scrub, favoring less densely vegetated areas.	No	None	Site is urban/developed. Native vegetation communities are not present in project area.
Source: CDFW 2016		<i>State</i>			
Status:		SE - listed as endangered under the California Endangered Species Act.			
<i>Federal</i>		ST – listed as threatened under the California Endangered Species Act.			
FE – listed as endangered under the federal Endangered Species Act.		FPS – fully protected species in California.			
FT – listed as threatened under the federal Endangered Species Act.		CSC – species of special concern in California.			

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 E-1.

The project site does not contain suitable habitat to continually support any protected, rare, threatened, or endangered marine species; however, a number of species 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 on site. There is a population of resident Eastern Pacific green sea turtles most commonly observed in southern San Diego Bay. Green sea turtles can be observed elsewhere within the Bay and offshore; however, this is not a common occurrence, as this species preferentially occurs in southern San Diego Bay. There is very little habitat or foraging opportunities within the project site to attract green sea turtles, and any occurrence on site would be uncommon and transient in nature.

Harbor seal (*Phoca vitulina*), California sea lion (*Zalophus californianus californianus*), common dolphin (*Delphinus* spp.), and coastal bottlenose dolphin (*Tursiops truncatus*), all of which are protected under the Marine Mammal Protection Act (MMPA), have potential to occur on site as they are common in central San Diego Bay. Both harbor seal and California sea lion may forage opportunistically when in the Bay and may periodically occur in the project site, and the California sea lion is most commonly observed in marina environments either foraging or using docks and other structures as temporary haul-out sites. Common dolphin and coastal bottlenose dolphin commonly transit central San Diego Bay; however, these species are unlikely to occur in the project site as they are rarely observed within marina environments (Appendix E-1).

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 Act, the U.S. Army Corps of Engineers (USACE) is authorized to regulate any activity within or over any navigable water of the United States (WoUS). Rivers and Harbors Act Section 10 jurisdiction is defined as “those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use, to transport interstate or foreign commerce” (33 Code of Federal Regulations 322). The San Diego Bay portion of the project site is considered a traditional navigable water regulated under Section 10 of the Rivers and Harbors Act; therefore, construction activities proposed within or the marine portion of the project site would require Section 10 compliance and coordination with USACE.

Endangered Species Act of 1973

Species listed as endangered and/or threatened by USFWS are protected under Section 9 of the federal ESA, 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 (a development project, for example) 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 a federal CWA Section 404 permit (e.g., impacts on WoUS) that is required. Section 10 applies when a federally listed species is present but no federal nexus is present. No federally listed species have been detected on 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, and/or the federal 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.

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 San Diego Bay. Any project activities that may result in Level A or B harassment, injury, or mortality would require consultation with NMFS and USFWS under the MMPA.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (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 both terrestrial and marine migratory species protected under the MBTA that may be directly or indirectly affected by the proposed project. Any potential take must be either permitted through consultation with USFWS or avoided and minimized through mitigation measures.

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 for approval. Under Section 303(d), the states are required to list waters that do not meet water quality standards and to 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 an applicant for any federal permit that proposes an activity that may result in a discharge to WoUS to obtain certification from the state that the discharge will 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. The NPDES program is administered by the RWQCB. Conformance with Section 402 is typically addressed in conjunction with water quality certification under Section 401. All construction activities must be consistent with Section 402 of the CWA 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 issuance of dredge/fill permits by USACE. 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 post-construction monitoring plan that includes disposal site monitoring, and (3) requiring compensation for loss of WoUS. The project does not propose any fill or dredge.

National Marine Fisheries Service

The NMFS is an office of the National Oceanic Atmospheric Administration and is responsible for the stewardship of the nation's ocean resources and their habitat. 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, 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 recognizes California ports, harbors, and coastline beaches as primary economic and coastal resources and as 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 Act is implemented by the Coastal Commission. The proposed project would require an amendment to the Port Master Plan and an appealable coastal development permit (which would be issued by the District) for activities within the coastal zone that occur within the immediate shoreline (i.e., tidelands, submerged lands, and public trust lands).

California Endangered Species Act

The CESA establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The 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 the federal ESA will satisfy the CESA if CDFW determines that the federal incidental take authorization is consistent with the CESA under California Fish and Game Code 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). No state-listed species have been detected on the project site.

California Fish and Game Code

The Fish and Game Code establishes the Fish and Game Commission, as authorized by Article IV, Section 20, of the Constitution of the State of California. 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, as well as prescribe the terms and conditions under which permits or licenses may be issued or revoked by CDFW. The Fish and Game Commission also oversees the establishment of wildlife areas and ecological reserves and regulates their use, as well as setting policy for CDFW.

Sections 3503, 3503.5, 3505, 3800, and 3801.6 of the Fish and Game Code protect all native birds, birds of prey, and all 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.

CDFW is a 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*, the CEMP is administered by NMFS and CDFW. The effects of the proposed project on any surrounding eelgrass beds and any compensatory mitigation would be addressed under the CEMP.

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/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 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)).

The 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 will 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 on 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, multi-faceted approach

to develop sound, science-based policies in consultation with technical experts and stakeholders; track and analyze ballast water and vessel biofouling management practices of the California commercial fleet; enforce laws and regulations to prevent introductions; and facilitate outreach to promote information exchange among scientists, legislators, regulators, and other stakeholders.

Both the U.S. Coast Guard (Ballast Water Management) and U.S. Environmental Protection Agency (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. The performance standards for vessels with ballast water capacities of 1,500–5,000 metric tons will apply in 2016, while standards for vessels with capacities of fewer than 1,500 metric tons and greater than 5,000 metric tons will apply in 2018. The State Legislature delayed implementation of the performance standards in 2013 because the state lacks the scientific protocols and capacity to measure compliance (Scianni et al. 2013), and no shipboard ballast water treatment systems are currently available to meet all of California's performance standards for the discharge of ballast water (CSLC 2013).

4.3.3.3 Local

San Diego Unified Port District Port Master Plan

Through implementation of the Port Master Plan, the District maintains authority over tidelands and submerged lands conveyed in trust to the District by the California legislature. Any amendments to the Port Master Plan are first reviewed and adopted by the Board of Port Commissioners and then certified by the California Coastal Commission, thereby allowing the District to issue coastal development permits for projects within its jurisdiction. The Port Master Plan 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 other agencies in Bay and tideland development, including the City of San Diego's Multiple Species Conservation Program (MSCP) and Environmentally Sensitive Lands Ordinance.

San Diego Bay Integrated Natural Resources Management Plan

The District and the U.S. Navy jointly implement the Integrated Natural Resources Management Plan. This long-term strategy document provides direction and planning guidance for good stewardship of the natural resources within the Bay. The Integrated Natural Resources Management Plan includes objectives and policy recommendations to guide planning, management, conservation, restoration, and enhancement of the Bay ecosystem.

4.3.4 Project Impact Analysis

4.3.4.1 Methodology

A search of CDFW's CNDDDB, CNPS, and USFWS IPAC was conducted on October 13, 2016, to determine the potential for sensitive plant and wildlife species to occur within the vicinity of the project site. The search included the project site and a 1-mile buffer (CDFW 2016), the U.S. Geological Survey's Point Loma, California 7.5-minute quadrangle map (CNPS), and a polygon for the project site created using the USFWS IPAC web application tool. A total of 32 sensitive plant species and 13 sensitive wildlife species were reviewed for their potential to occur within the project site.

On October 14, 2016, ICF biologists conducted a reconnaissance-level survey of the proposed project area and a 300-foot survey corridor. The survey area included vegetated areas along Convention Way and Marina Park Way, and the EMPS to the edge of water along the rip-rap. The survey was conducted to identify suitable habitat for sensitive plants and wildlife and the potential for such species to occur on site. The survey was also performed to identify if there was any potential nesting habitat for bird species.

Marine biological surveys were performed in a two-step process. 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 on site. While focused surveys for eelgrass were not performed, 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. A full explanation of survey methods and results is discussed in Appendix E-1.

4.3.4.2 Thresholds of Significance

The following significance criteria are based on Appendix G of the California Environmental Quality Act 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 supported by the recommendations of qualified personnel at ICF and relies on the 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 federally protected wetlands as defined by Section 404 of the CWA 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 impendence 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.

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, including the offsite utility improvements, would require demolition and grading for site preparation, construction cranes for installation of the market-rate hotel tower, and the use of standard construction equipment, such as earth-moving equipment, concrete trucks, forklifts, and pile drivers. In addition, as discussed in Chapter 3, *Project Description*, offsite staging areas would be utilized at the R.E. Staite property at 2145 Belt Street, San Diego, to store equipment and supplies. Construction would temporarily disrupt the area due to an increase in noise levels, truck traffic, and ground-disturbing activities. Completion of the proposed project would result in the addition of a new high-rise market-rate hotel tower and a lower-cost visitor-serving hotel along the bayfront of San Diego's downtown, as well as new public access plazas. The addition of new buildings would present both an obstacle for birds migrating through the area and potential nesting habitat for bird species that commonly inhabit heavily urbanized landscapes. Some birds will readily recognize the new buildings as an area for potential nesting; however, the addition of new high-rise buildings can create a flight hazard for birds as they may have difficulty distinguishing the buildings from open airspace. In addition, operation of the market-rate hotel tower would create a potential shading impact on eelgrass beds located northwest of the proposed project area. The impact from shading on the marine community is discussed under Threshold 2.

Construction of the waterside portion of the proposed project would include in-water operations such as pile driving, equipment storage, and barge operations. These activities would generate increased noise and ground-disturbing activities within the marine community. Temporary noise disturbances have the potential to affect marine mammals, green sea turtles, and foraging for California least tern and California brown pelican. In addition to noise impacts, the overwater coverage from equipment during construction would temporarily affect California least tern and California brown pelican by limiting available open water area for foraging. Completion of the waterside portion of the proposed project would result in additional overwater coverage, which would diminish potential open water foraging habitat for California least tern and California brown pelican. The increased overwater coverage would also create a shading impact on the local ecology by reducing available sunlight for primary production from phytoplankton and other nearby algal species; however, the shade generated from additional overwater coverage would not affect eelgrass

within the Campbell Shipyard Mitigation Cap Site, and it would not directly affect any sensitive wildlife or plant species. The addition of the new expanded marina to the proposed project site would also create water quality impairments as a result of increased localized boating operations and boat storage (e.g., bilge water discharges, copper hull paint degradation, involuntary oil and gasoline spills, litter, surfactants), which could affect foraging opportunities for California least tern and California brown pelican. Marina operations could also affect adjacent eelgrass through increased boating operations near the Campbell Shipyard Mitigation Cap Site. The proposed boat slips would be adjacent to the eelgrass beds, thus increasing the potential impacts from boating activities. Impacts on eelgrass from marina operation and construction are discussed under Threshold 2.

California least tern and California brown pelican are both discussed under the terrestrial wildlife section, and both species occupy a similar feeding guild and rely on the marine environment for foraging. Both species are also considered sensitive; however, California least tern is both federally and state-listed as endangered. All impacts and mitigation measures in reference to California least tern will also satisfy any potential impacts on California brown pelican. There are no specific impacts on California brown pelican that would not also be applicable to California least tern.

Construction

Plant Species

Terrestrial

As discussed in Section 4.3.2, *Existing Conditions*, the terrestrial component of the project site and locations of offsite activities are completely developed, with existing vegetation limited to ornamental landscaping. Desktop analysis of CNDDDB, CNPS, and USFWS species lists indicate that there is potential for 32 sensitive plant species to occur within or adjacent to the project site. In addition to desktop analysis, a field reconnaissance survey of the project site was performed to identify potential habitat for sensitive plant and wildlife species. Upon review of these resources and the site visit, it was determined that because the site is urban/developed and lacks any natural terrestrial habitat, no sensitive plant species are likely to occur at the project site. Therefore, construction of the proposed project would not affect any terrestrial candidate, sensitive, or special-status plant species, and no impact would occur.

Marine

Eelgrass, which is categorized as EFH and given further designation as a Habitat of Particular Concern, was identified adjacent to the project site; however, impacts related to eelgrass are discussed in Threshold 2 below because it is considered a sensitive natural community. There were no other marine-based candidate, sensitive, or special-status plant species present within or adjacent to the project site during the marine biological surveys performed in October 2016. No impact on marine-based candidate, sensitive, or special-status plant species would occur.

Wildlife Species

Terrestrial

As discussed in Section 4.3.2.2, *Candidate, Sensitive, and Special-Status Species*, and Table 4.3-3, three sensitive terrestrial wildlife species have the potential to occur within or adjacent to the project site based on potential foraging opportunities: the California least tern, California brown pelican, and

American peregrine falcon. The California least tern is both a federally and state-listed as endangered species under the ESA and CESA, respectively; the California brown pelican is a state fully protected species under the CESA. Both have the potential to utilize open water habitat within and adjacent to the project site for foraging opportunities. The American peregrine falcon is also a state fully protected species under the California Fish and Game Code and has the potential to use the urban landscaped areas to hunt prey species. In addition to being protected species under the ESA and/or California statute, all three species are also protected under the MBTA. Furthermore, although there is no nesting potential for sensitive wildlife species in the project site, there is suitable nesting habitat for a number of bird species in the mature trees within the EMPS and along Convention Way. With the exception of nonnative, human-introduced bird species such as house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), rock pigeon (*Columba livia*), and Eurasian collared dove (*Streptopelia decaocto*), any nesting bird found on site would be protected under the MBTA and California Fish and Game Code.

Stormwater runoff from land-based construction could indirectly affect foraging opportunities for California least tern in the open water marine habitat on site and adjacent to the project site by increasing turbidity. Additionally, water quality impairment associated with in-water construction activities could indirectly affect foraging opportunities for California least tern and California brown pelican 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, which can also impair water quality.

As discussed in Section 4.8, *Hydrology and Water Quality*, construction of the proposed project would include preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP), as mandated under the NPDES permit and Stormwater Management and Discharge Control Ordinance, as well as implementation of appropriate regulatory permits, including the CWA Section 401 Water Quality Certification. The SWPPP would identify short-term, project-specific best management practices (BMPs) that would minimize pollutants and/or sediments entering runoff during the construction stage of the proposed project. A full list of the minimum required BMPs for construction sites is found in Table 4.8-4, *Minimum BMPs for Construction Sites*, in Section 4.8, *Hydrology and Water Quality*. The CWA Section 401 Water Quality Certification would require implementation of in-water construction BMPs, such as silt curtains, turbidity barriers, and trash booms that would deflect and contain sediment and floatable pollutants within a limited area. Without compliance with these regulations, potential impacts would be significant because in-water construction activities could impair the water quality and thus affect foraging opportunities for California least tern and California brown pelican within and adjacent to the project site (**Impact-BIO-1**).

Although the project site does not contain any suitable nesting habitat for the American peregrine falcon, there is potential for American peregrine falcon to utilize the project site as foraging habitat. The American peregrine falcon and some of the prey species it typically pursues are well adapted to urban environments. The falcon would only utilize the project site for foraging in the event that prey species are present. Construction impacts on American peregrine falcon would be temporary and less than significant because construction and noise disturbances are very common in urban settings and are unlikely to deter prey species from periodically using the project site. However, potential impacts would be significant because increased noise from pile driving would create a disturbance for California least tern and California brown pelican foraging opportunities (**Impact-BIO-2**).

A number of avian species such as the black-crowned night heron, snowy egret, osprey (*Pandion haliaetus*), and house finch, which are protected under the MBTA and California Fish and Game Code, have the potential to nest in the existing mature ornamental trees or on the existing human-made structures found within the EMPS. The MBTA prohibits take of nearly all native 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. Similar provisions within the Fish and Game Code protect all nesting native birds (Sections 3503 and 3503.5) and all non-game birds that occur naturally in the state (Section 3800). Proposed removal of existing trees and demolition of existing structures could result in significant direct impacts on active nests or indirect impacts through construction noise, dust, or nighttime lighting (**Impact-BIO-3**).

Because the MBTA regulates the destruction of an occupied nest, any destruction of active nests occupied by avian species covered under the MBTA would be considered a significant impact and a violation of the MBTA and Sections 3503 or 3503.5 of the California Fish and Game Code. Therefore, a significant impact would potentially occur and mitigation is required.

Marine

Though the project site does not contain favorable habitat for protected marine wildlife species, the green sea turtle and two pinniped species have potential to occur within the project site on a transient basis. In addition, common dolphin and coastal bottlenose dolphin are both found in San Diego Bay; however, as stated in Section 4.3.2.2, *Candidate, Sensitive, and Special-Status Species*, these species are not likely to occur within the marina environments.

In-water pile driving is planned for the marina expansion component of the project. The worst-case sound energy levels associated with pile driving were determined based on the following assumptions: 24-inch concrete piles, 75 strikes per pile, and 10 piles driven per day. Based on sound energy levels calculated and thresholds established by NMFS, it was determined that Level B (behavioral disruptions) harassment would occur at a distance of 384 feet from pile driving activities. Level A (injury) harassment was determined to occur at a distance of 237 feet from pile driving. A full discussion of potential impacts on marine resources associated with pile driving is included in Appendix E-1. As such, pile driving activities associated with the marina construction would generate a potentially significant noise impact on these marine species that could result in Level A or Level B harassment, as well as significant impacts on California least tern foraging (**Impact-BIO-2**). Therefore, mitigation is required.

Operation

Plant Species

Terrestrial

As mentioned under *Construction*, no sensitive plant species occur at the project location. Therefore, operation of the proposed project would not affect any terrestrial candidate, sensitive, or special-status plant species, and no impact would occur.

Wildlife Species

Terrestrial

The California least tern, California brown pelican, and American peregrine falcon potentially present within the project site are well adapted to life in an urban environment. New buildings associated with the proposed project would offer potential nesting habitat for the American peregrine falcon, as 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) bird strikes, (2) affecting the water quality in the Bay, and (3) reducing the amount of open water, each of which is discussed in more detail below.

Bird Strikes from Reflective Features. 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 that are 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, and/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).

While many of the proposed project components would not create a bird strike hazard, the market-rate hotel tower, lower-cost visitor-serving hotel, and glass surfaces in the pedestrian bridge from the hotel public access plaza to the San Diego Convention Center would potentially increase the potential for bird strikes, which would result in significant impacts on avian species protected under the MBTA and sensitive and listed species protected under CESA (**Impact-BIO-4**).

Stormwater Drainage Effect on Open Water Habitat. Stormwater discharges associated with the operation of the proposed project have potential to impair open water habitat in San Diego Bay, which could affect foraging habitat for the terrestrial species that currently utilize the project site. Over the operational life of the proposed project, stormwater runoff would be treated by permanent post-construction BMPs (discussed further in Section 4.8, *Hydrology and Water Quality*) that would be a combination of Low Impact Development and Site Design BMPs, Source Control BMPs, and Treatment Control BMPs listed in the Urban Stormwater Mitigation Plan. Consequently, stormwater runoff from the site would be controlled and treated prior to entering the storm drains as required by the municipal separate storm sewer system permit. With the implementation of the required BMPs, open water habitat would not be impaired by operational stormwater discharges; thus, operation would not affect foraging habitat for these species.

Reduction in Open Water Habitat. Finally, the California least tern has the potential to utilize open water habitat within and adjacent to the project site for foraging opportunities. The net increase in overwater coverage resulting from the marina expansion is approximately 58,319 square feet or 1.34 acres, and would reduce the available open water habitat that is used for foraging by fish-eating avian species, resulting in a significant impact (**Impact-BIO-5**). This overwater coverage includes approximately 13,623 square feet or 0.31 acre of structural fill as a result of the construction of 188

piles and the breakwater for the marina expansion. The installation of the structural fill may affect open water habitat, resulting in a significant impact (**Impact-BIO-6**), which would require mitigation. However, new piles located under the new marina dock would not create additional impacts on foraging terns. Additionally, after construction the new piles would develop fouling communities that provide trophic support to fish species. Areas adjacent to the marina would still be accessible to birds foraging from the water surface.

Marine

The waterside operations of the proposed project would not result in impacts on sensitive marine wildlife species. While the waterside operations would generate additional shade, thus leading to localized reduction in primary production from phytoplankton and algal species, there would be no direct impact on sensitive marine species from this component. The project site currently serves as a marina for recreational and commercial boating. Further expanding marina operations would increase vessel traffic to the area; however, the project would not change the current water use within the Bay, nor would it prevent or impede the species from entering the area. With increased vessel traffic there are a number of potential impacts that could occur including involuntary bilge water release, copper paint deterioration, litter, vessel strikes, vessel noise, and biofouling. Impacts on water quality from increased boat traffic and marina operations and the associated mitigation measures are discussed in Section 4.8, *Hydrology and Water Quality* (**Impact-HWQ-1**, **MM-HWQ-1**, and **MM-HWQ-2**).

Vessel Strikes. An increase in recreational and commercial boat traffic would result from the marina expansion component of the project. Increased vessel traffic could potentially cause harm to marine mammals and sea turtles from vessel collisions. To minimize the potential of vessel strikes, vessels entering into San Diego Bay are required to comply with the District's safe speed policy. This policy requires every vessel to 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.

Moreover, commercial vessels entering into San Diego Bay are served by the San Diego Bay Pilots Association. Pilots board vessels in the vicinity of San Diego Bay Approach Lighted Whistle Buoy 1 (32° 37.3'N, 117° 14.7'W). When boarding, pilots request vessels maintain a speed of 7 knots. All foreign vessels and vessels from a foreign port or bound thereto, and all vessels over 300 gross tons sailing under register between the Port of San Diego and any other U.S. port, are subject to pilotage charges and, unless permission is granted from the U.S. Coast Guard Captain of the Port, must be under the direction of a federally licensed pilot for the Port of San Diego. Thus, compliance with the District's safe speed policy and the use of a highly experienced port pilot to ensure the safe transport of the vessel through the Bay would minimize the potential for collisions with marine mammals and sea turtles, and the potential impact would be less than significant.

Vessel Noise. The increased recreational and commercial 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 central San Diego Bay 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 site would be operating 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 measurably increase

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. California law requires regular biofouling removal for vessels over 300 gross tons during one of the following stages: (1) no longer than by the expiration date (or extension) of the vessel's full-term Safety Construction Certificate, or (2) no longer than by the expiration date (or extension) of the vessel's U.S. Coast Guard Certificate of Inspection, or (3) no longer than 60 months (5 years) since the vessel's most recent out-of-water drydocking. In addition, vessels over 300 gross tons are required to submit an annual report known as the Hull Husbandry Reporting Form, which provides information about the care of the hull that occurred that year. Thus, compliance with the regular maintenance requirements and the reporting requirement would reduce potential impacts, and the impact from biofouling would be less than significant.

Overwater and Structural Fill Mitigation Site

As discussed above, the proposed project would affect approximately 1.34 acres of overwater coverage and result in 0.31 acre of structural fill. As specified in **MM-BIO-5**, impacts on open water habitat would be offset by either removing overwater coverage from the San Diego Bay, creating and/or enhancing subtidal habitat at a mitigation site identified at the decommissioned South Bay Power Plant cooling water intake channel, purchasing credits from a suitable in lieu program or mitigation bank, or using the District's shading credit program at a fair market value. The proposed South Bay Power Plant cooling water intake channel mitigation site is within District jurisdiction and is presently part of the contemplated habitat restoration associated with the Chula Vista Bayfront development.

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:

Impact-BIO-1: Water Quality Impairment Impacts on California Least Tern and California Brown Pelican Foraging. Construction and operation of the proposed project could lead to water quality impairment in San Diego Bay, which would inhibit foraging of both California least tern and California brown pelican by reducing water clarity and making it more difficult to identify prey species within the project site. This impact would be potentially significant.

Impact-BIO-2: Potential Disruption or Injury of California Least Tern, Green Sea Turtle, and Marine Mammals During Pile Driving Activities. Pile driving activities would potentially generate a noise disturbance to California least tern from in-air noise. Pile driving could also generate enough underwater noise to injure (Level A Harassment) or alter behavior (Level B Harassment) of both green sea turtle and marine mammals. This impact would be potentially significant.

Impact-BIO-3: Potential Disturbance or Destruction of Nests Protected by the Migratory Bird Treaty Act and California Fish and Game Code. Removal of mature trees during construction, as well as noise from construction activity, could impede the use of bird breeding sites during the nesting season (February 15 through August 31). The destruction of an occupied nest would be considered a significant impact if it were a violation of the MBTA or California Fish and Game Code. Therefore, this impact would be potentially significant.

Impact-BIO-4: Reflective Materials and Increased Bird Strikes (market-rate hotel tower lower-cost visitor-serving hotel, and retail development). Use of reflective building and glass finishes may confuse birds in flight, leading to an increase in strikes. This impact would be potentially significant.

Impact-BIO-5: Loss of Open Water Habitat from Marina Operations. The California least tern has the potential to utilize open water habitat within and adjacent to the project site for foraging opportunities. The increase in overwater coverage resulting from the marina expansion is approximately 58,319 square feet or 1.34 acres, and would reduce the available open water habitat that is used for foraging by fish-eating avian species. In addition to the impact on avian species, NMFS acknowledges that overwater coverage can have a cumulative impact on nearshore marine environments, although the impacts are often project specific and difficult to quantify. While the proposed configuration of overwater structures would not generate shade over eelgrass, overwater structures have the potential to affect nearshore habitat through a number of mechanisms including reduced primary production, altered wave and tidal energy, increased substrate disturbances, and increased nutrient loading (Nightingale and Simenstad 2001). This impact would be potentially significant.

Impact-BIO-6: Loss of Open Water Function from Structural Fill. Several species utilize the open water habitat. The proposed project would result in an increase of 13,623 square feet or 0.31 acre of structural fill with the construction of 188 piles and the breakwater for the marina expansion. The increase in structural fill would reduce the amount of open water within the San Diego Bay. The piles and breakwater could restrict or change water circulation. The restriction in circulation would likely have a minimal but unpredictable impact on eelgrass beds in the areas inside of the breakwater (Appendix E-1).

Mitigation Measures

For **Impact-BIO-1:**

MM-BIO-1: Avoid California Least Tern Breeding Season or Implement Construction Measures to Eliminate Impacts on California Least Tern Breeding. The project proponent shall schedule and complete all in-water construction activity outside of the nesting season for California least tern (generally between mid-April and late September). Should in-water construction occur during the California least tern nesting season, the following construction measures shall be implemented in accordance with regulations, including CWA Section 401, the NPDES permit, and Stormwater Management and Discharge Control Ordinance:

- The contractor shall deploy a turbidity curtain around the pile driving areas to restrict the visible surface turbidity plume to the area of construction and pile driving. It shall consist of a hanging weighted curtain with a surface float line and shall extend from the surface to 20 feet down into the water column. The goal of this measure is to minimize the area in which visibility of prey by terns is obstructed.

- The contractor shall retain a qualified ornithologist (with knowledge of the species to be surveyed) approved by the District who shall conduct monitoring within 500 feet of construction activities to identify presence of terns displaying foraging behavior (e.g., searching and diving) and assess adverse impacts, if any, on California least terns. Should adverse impacts on terns occur (e.g., agitation or startling during foraging activities), construction shall cease until least terns have left the project site.
- The contractor shall follow all regulatory requirements to minimize reduction in water quality in San Diego Bay. Construction of the proposed project would include preparation and implementation of a SWPPP, and implementation of appropriate regulatory permits, including the CWA Section 401 Water Quality Certification. A full explanation of these requirements can be found in Section 4.8, *Hydrology and Water Quality*.

MM-HWQ-1: Marina Best Management Practice Plan and Copper Reduction Measures. To reduce potential impacts on water quality, the project proponent shall prepare a Marina Best Management Practice Plan that shall be reviewed and approved by the District specifically identifying best management practices that will be used within the Marina to (1) minimize the pollutant load of runoff, including measures to prevent, eliminate, and/or otherwise effectively protect water quality of the Bay and (2) reduce inputs of total and dissolved copper resulting from increased berthing of boats. The Marina Best Management Practice Plan and Copper Reduction Measures shall be reviewed and approved by the District prior to the opening of marina operations. The Marina Operator shall be responsible for implementation and maintenance of the Marina Best Management Practice Plan and Copper Reduction Measures. At a minimum, the Marina Best Management Practice Plan shall include, but not be limited to, the following:

- Use of educational materials to be provided to boat owners and their crews that specify types of activities that shall be avoided or types of BMPs that shall be implemented in order to protect water quality, such as emptying of septic tanks and refueling only at approved locations, respectively. Recommendations to reduce oil leaks include conducting periodic maintenance of all fuel lines, hoses, and gaskets; putting an oil-absorbent pad in the bilge; and installing a filtration system to remove oil from bilge water.
- Docking agreements containing specific use restrictions to prevent degradation of water quality, such as restricting boat repairs and cleaning operations within the marina. These specific use restrictions shall be similar to the recommendations from the *San Diego Bay Boaters Guide* (District 2006) and the California State Parks Division of Boating and Waterways and the California Coastal Commission Boating Clean and Green Program (California DBW 2017), both of which promote environmentally sound boating practices to marine business and boaters in California.
- Implementation of an incentive structure within the docking agreements' rent rates for occupants with non-copper hull paint boats.
- Identification of copper-free zones within the innermost portions of the marina, or limitation of copper hull paint boats to only well-flushed zones of the marina.
- Hull bottom scraping and the use of toxic detergents to clean vessels would be prohibited, and no overwater repairs would be allowed.
- Implementation and monitoring of the District-adopted in-water hull cleaning regulations. Ordinance No. 2681 requires the use of BMPs for businesses doing in-water hull cleaning.

The In-Water Hull Cleaning Permit is a Bay-wide permit to reduce or eliminate copper pollution caused by in-water hull cleaning activities.

- Limitations on in-slip hull cleaning (restrict or limit number of cleanings per year).
- No fueling on site.

MM-HWQ-2: Water Quality Sampling for Total and Dissolved Copper. Prior to the commencement of marina development, the project proponent shall conduct water quality sampling to develop an updated baseline for total and dissolved copper as follows:

- Develop a sampling and analysis plan that will be reviewed and approved by the District prior to sampling. The plan shall identify a minimum of three points, denoting edges and midpoint of marina footprint.
- Sample for total and dissolved copper. The project proponent shall use an Environmental Laboratory Accreditation Program (ELAP)-certified laboratory for all analytical testing.
- Compare dissolved copper levels to Basin Plan water quality objectives.
- The project proponent shall submit the baseline monitoring report to the District for its review and approval.

The project proponent shall conduct ongoing water quality monitoring and testing for total and dissolved copper, following the process outlined above for the updated baseline sampling, over the course of marina development/occupancy at the following frequency for each phase of marina development:

- After 50% occupancy,
- After 75% occupancy, and
- After full occupancy (95% slips under rental agreements).

Reports of all monitoring and testing results shall be prepared and paid for by the project proponent and submitted to the District's Development Services Department for review and approval within 30 days after the occupancy milestones identified above.

If at any time during monitoring the water quality equals or exceeds or the Basin Plan water quality objectives and comparison with the updated baseline indicates that the exceedance is a result of the proposed project, the project proponent shall immediately notify the District's Development Services Department and shall immediately cease further development and/or occupancy until additional BMPs addressing the issue are employed and reduce the copper levels.

Water quality testing shall occur every year following full occupancy of the marina or until the marina is fully occupied by non-copper hulled boats. The project proponent shall prepare written reports of the water quality testing results annually and submit the reports to the District's Development Services Department for review and approval within 30 days after the end of each calendar year. Any exceedance attributed to the proposed project (based on a comparison with the updated baseline assessment) shall require additional BMPs if determined necessary to reduce total and dissolved copper to below the Basin Plan water quality objectives.

For Impact-BIO-2:

MM-BIO-2: Implement a Marine Mammal and Green Sea Turtle Monitoring Program During Pile Driving Activities. Prior to construction activities involving in-water pile driving, the project proponent shall prepare and implement a marine mammal and green sea turtle monitoring program. This monitoring program shall be approved by the District and 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 and approved by the District's Director of Real Estate Development or designee of the District, shall monitor a 384-foot surface radius around the active pile driving areas to ensure that special-status species are not present.
- 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 within the marina shall begin with soft starts, gradually increasing the force of the pile driving.
- Level B harassment of marine mammals and green sea turtles (harassment level leading to behavior modification) from pile driving shall be avoided at a distance of 384 feet.
- Monitoring by a qualified biologist for marine mammals and green sea turtles within 384 feet shall be implemented during all pile driving activities to prevent impacts on these species by identifying when they are approaching or within 384 feet, and by coordinating with construction crews to halt pile driving until the species have left this area.
- 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 2017).

Implement **MM-BIO-1: Avoid California Least Tern Breeding Season or Implement Construction Measures to Eliminate Impacts on California Least Tern Breeding**, as described above.

For Impact-BIO-3:**MM-BIO-3: Avoid Nesting Season for Birds or Conduct Preconstruction Nesting Surveys.**

To ensure compliance with the MBTA and similar provisions under Sections 3503 and 3503.5 of the California Fish and Game Code, the project proponent shall conduct all vegetation removal (e.g., ornamental trees) during the non-breeding season between September 1 and February 14 or shall implement the following:

- If construction activities are scheduled between February 15 and August 31, the project proponent shall retain a qualified ornithologist (with knowledge of the species to be surveyed) who shall conduct a focused nesting bird survey within potential nesting habitat prior to the start of vegetation removal. The survey shall be submitted to the District for review and approval of the survey and the buffer area, defined below, if any, prior to the commencement of vegetation removal on the project site.
- The nesting bird survey area shall include the entire limits of disturbance plus a 300-foot buffer for non-raptors and a 500-foot buffer for raptors to ensure indirect impacts would be avoided. The nesting surveys shall be conducted within 1 week prior to initiation of construction activities and shall consist of a thorough inspection of the project area by a

qualified ornithologist(s). The survey shall occur between sunrise and 12:00 p.m., when birds are most active. If no active nests are detected during these surveys, only a letter report documenting the results shall be prepared.

- If the survey confirms nesting within 300 feet of the disturbance footprint for non-raptors or within 500 feet for raptors, a no-disturbance buffer shall be established around each nest site to avoid disturbance or destruction of the nest until after the nesting season or a qualified ornithologist determines that the nest is no longer active. The size and constraints of the no-disturbance buffer shall be determined by the qualified biologist at the time of discovery, but shall not be greater than 300 feet for non-raptors and 500 feet for raptors. If there is a delay of more than 7 days between when the nesting bird survey is performed and vegetation removal begins, the qualified biologist shall resurvey to confirm that no new nests have been established.

For **Impact-BIO-4**:

MM-BIO-4: Implement Bird Strike Reduction Measures on New Structures. Prior to issuance of any building permits, building plans shall be reviewed by an ornithologist familiar with local species, retained by the developer and approved by the District, 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 and the District that design strategies will be in accordance with the *Bird-Friendly Building Design*, and confirmed with USFWS and CDFW 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
- Incorporate elements like 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 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
 - Develop a 3-year post-construction monitoring plan to routinely monitor the effectiveness of the building and site design in preventing bird collisions. 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 voluntary corrective action.
 - Provide a performance monitoring report demonstrating which design strategies have been incorporated and results of performance monitoring for District review.

A full list and explanation of these design strategies can be found in Appendix E-4.

For **Impact-BIO-5** and **Impact-BIO-6**:

MM-BIO-5: Implement Overwater Coverage and Structural Fill Mitigation in Coordination with NMFS, CDFW, USFWS, RWQCB, USACE, and the District to Compensate for Loss of Open Water Habitat and Function. The project proponent shall implement the following:

1. Prior to issuance of a Coastal Development Permit, the project proponent shall request and participate in stakeholder meetings with NMFS, CDFW, USFWS, RWQCB, USACE, 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 the Bay.
2. Prior to the commencement of construction activities of the marina expansion, the project proponent shall implement one of the following mitigation options, or a combination thereof, that are listed below in order of preference; however, selection of 2.A, 2.B, 2.C and 2.D, or an equivalent combination thereof, would successfully reduce **Impact-BIO-5** to a level below significance.
 - A. Remove 58,319 square feet (1.34 acres) of overwater coverage and 13,623 square feet (0.31 acre) of structural fill within San Diego Bay or San Diego region, which would replace the area affected by the proposed project at a 1:1 mitigation ratio, subject to the District's review and approval. If evidence is presented that demonstrates that all or a portion of the required removal of overwater coverage or structural fill is infeasible, the project proponent shall implement 2.B.
 - B. Restore 71,942 square feet of eelgrass habitat at the South Bay Power Plant cooling water intake channel at a 1:1 ratio, which would offset 58,319 square feet (1.34 acres) of overwater coverage and 13,623 square feet (0.31 acre) of structural fill impacts. The project proponent may identify an alternative mitigation site of equivalent size and value within San Diego Bay, subject to the District's review and approval. Prior to the commencement of construction activities for the marina expansion, the project proponent shall submit a mitigation plan for review and approval by the Development

Services Department of the District. The mitigation plan at a minimum shall include a description of the transplant site, eelgrass mitigation requirements, eelgrass planting plan (e.g., transplant sites, donor sites, reference site), restoration methods (e.g., plant collection, transplant units, planning eelgrass units), timing of the restoration work, and a monitoring program (e.g., establishment of monitoring and mitigation success criteria). The project proponent shall secure all applicable permits for the mitigation site prior to commencement of waterside construction. Additionally, the project proponent shall ensure that all fill materials proposed for discharge into San Diego Bay for the development of the mitigation site shall meet the requirements of the U.S. Army Corps of Engineers' *Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. – Testing Manual (Inland Testing Manual)*. If evidence is presented that demonstrates that restoration of all or a portion of the required 71,942 square feet of eelgrass habitat is infeasible, the project proponent shall implement 2.C.

- C. If a suitable in lieu fee program or mitigation bank within the Coastal Zone that is not yet available becomes available in the future, prior to construction of the proposed marina, the project proponent shall purchase credits to offset 58,319 square feet (1.34 acres) of overwater coverage and 13,623 square feet (0.31 acre) of structural fill, or the remaining square footage of the impacts if a combination of other above options are selected. If evidence is presented that demonstrates that purchase of credits toward an in lieu fee program or mitigation bank is infeasible, the project proponent shall implement 2.D.
- D. Subject to the Board of Port Commissioners' approval and findings, the proposed project may purchase credits from the District's shading credit program established pursuant to board Policy 735 at a fair market value equivalent to that of the proposed project's final shading total (i.e., less any reductions achieved by design modifications to the satisfaction of NMFS, USFWS, RWQCB, CDFW, and USACE).
- E. Any combination of the above that sufficiently offsets 58,319 square feet (1.34 acres) of overwater coverage and 13,623 square feet (0.31 acre) of structural fill impacts.
- F. This shall be the minimum mitigation for overwater coverage and structural fill impacts. One or more of the aforementioned state and federal agencies may require additional or greater mitigation. This mitigation measure in no way supersedes mitigation measures that may be required by state and federal agencies.

Should the project proponent only construct Phase 1 of the marina expansion, the mitigation requirement shall be reduced proportionate to the overwater coverage and structural fill impacts of the Phase I only expansion, consistent with a 1:1 mitigation ratio.

- 3. The project proponent shall secure all applicable permits for the mitigation of overwater coverage and structural fill prior to commencement of waterside construction.

Level of Significance After Mitigation

Implementation of **MM-BIO-1**, **MM-HWQ-1**, and **MM-HWQ-2** would reduce impacts on California least tern during waterside pile driving to less-than-significant levels by requiring construction activities to occur outside of the California least tern nesting season or by implementing construction measures in accordance with regulations, as well as implementing measures that would reduce pollutant load runoff and reduce inputs of copper from boat berthing, and require

ongoing monitoring of water quality. **MM-BIO-3** would reduce impacts on nesting birds during construction activities to less-than-significant levels by avoiding the bird nesting season or through preconstruction surveys. Implementation of **MM-BIO-2** would reduce impacts on marine mammals and green sea turtles to less-than-significant levels by identifying when the species are approaching or within the designated isopleth for Level B harassment, and halting in-water pile driving activities until the species has left the construction area. Implementation of **MM-BIO-4** would reduce impacts on birds in flight 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-BIO-5** would reduce **Impact-BIO-5** and **Impact-BIO-6** to less-than-significant levels by requiring implementation of any combination of the following mitigation options: removing overwater coverage and structural fill in the Bay or the San Diego region; restoring eelgrass habitat at the South Bay Power Plant cooling water intake channel or an alternative mitigation site of equivalent size and value within San Diego Bay; purchasing credits for a suitable in lieu fee program or mitigation bank; and/or purchasing credits from the District's shading credit program. Although **MM-BIO-5** would reduce **Impact-BIO-5** and **Impact-BIO-6** to less-than-significant levels, implementation of this mitigation measure would have the potential to result in secondary effects. The removal of overwater coverage and structural fill could involve demolition of existing piers or other structures within San Diego Bay, which would potentially result in short-term water quality impacts if water quality protection measures were not implemented. However, adherence to regulatory permit requirements associated with Rivers and Harbors Act Section 10 and CWA Section 401 would ensure that implementation of this mitigation measure would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade existing water quality. Additionally, it is anticipated that criteria pollutant and greenhouse gas emissions generated by **MM-BIO-5** would be minimal and temporary, and would primarily be associated with construction worker and haul trips to and from the removal site. Consequently, the overall secondary effects of implementing **MM-BIO-5** would be 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, regulations or by CDFW, NMFS, or USFWS.

Impact Discussion

Construction of the waterside portion of the proposed project would include in-water activities such as pile driving, equipment storage, and barge operations, which would generate increased noise and water quality impacts within the marine community. The waterside operation would consist of a number of floating docks and piles that would create boat slips for both small and large vessels, creating a potentially significant permanent overwater coverage impact and loss of open water function as a result of increased structural fill. Both impacts are discussed under Threshold 1.

Waterside construction would create temporary overwater shading in the project site from construction equipment. Potential impacts from the marina operation include impacts on eelgrass due to restriction of water circulation, and incidental disturbances from propeller wash and recreational boater traffic. Additionally, potentially significant shading impacts may occur from the hotel as part of the landside component of this project, as this would increase shade on eelgrass

beds that occur northwest of the hotel project footprint. Detailed analysis related to project construction and operations is provided below.

Construction

Terrestrial

There are no sensitive terrestrial vegetation communities or riparian habitat within the landside component of the project site, including the offsite areas. Therefore, no construction-related impacts on sensitive terrestrial habitats would occur.

Marine

As discussed in Section 4.3.2, *Existing Conditions*, eelgrass habitat is present close to the waterside component of the project site. Although there are no eelgrass beds within the marina project footprint, construction required to complete the marina facility would potentially require pile driving barges to temporarily position near the Campbell Shipyard Mitigation Cap Site during the pile installations. Potential impacts on the Campbell Shipyard Mitigation Cap Site during construction of the proposed project could occur in three ways: direct physical disturbance from anchoring and staging of equipment, indirect impacts associated with shading from construction-related equipment, and indirect impacts associated with elevated turbidity levels from construction-related activities such as pile driving (**Impact-BIO-7**).

The marina expansion portion of this project requires a CWA Section 401 Water Quality Certification to ensure that water quality objectives, including minimizing turbidity during construction, are met for San Diego Bay. A full discussion of the permit requirements and water quality objectives for the project is found in Section 4.8, *Hydrology and Water Quality*. Although temporary water quality 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 the CWA Section 401 Water Quality Certification.

Operation

Terrestrial

There are no sensitive terrestrial vegetation communities or riparian habitat within the landside component of the project site, including the offsite areas. Therefore, no operation-related impacts on sensitive terrestrial habitats would occur.

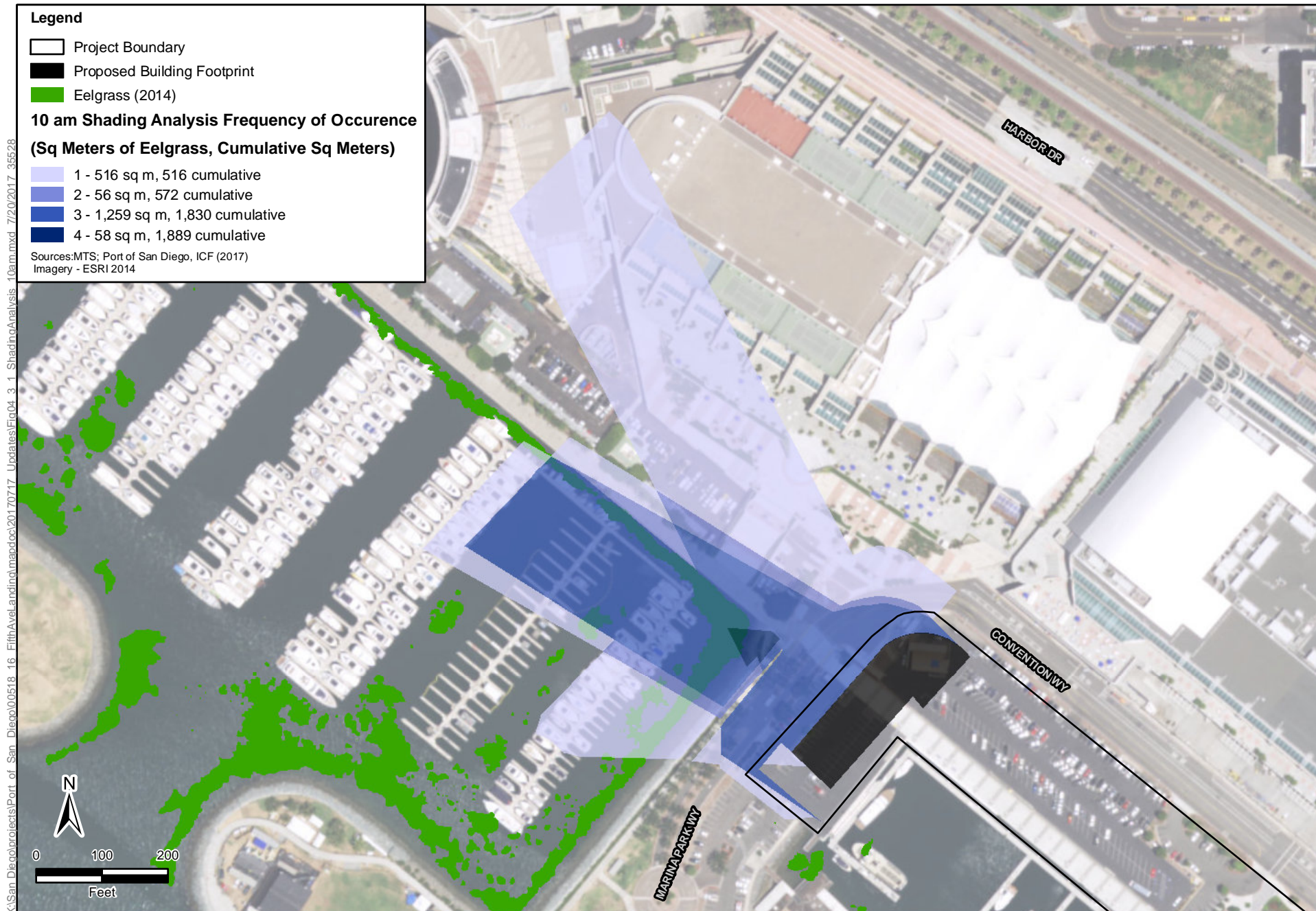
Marine

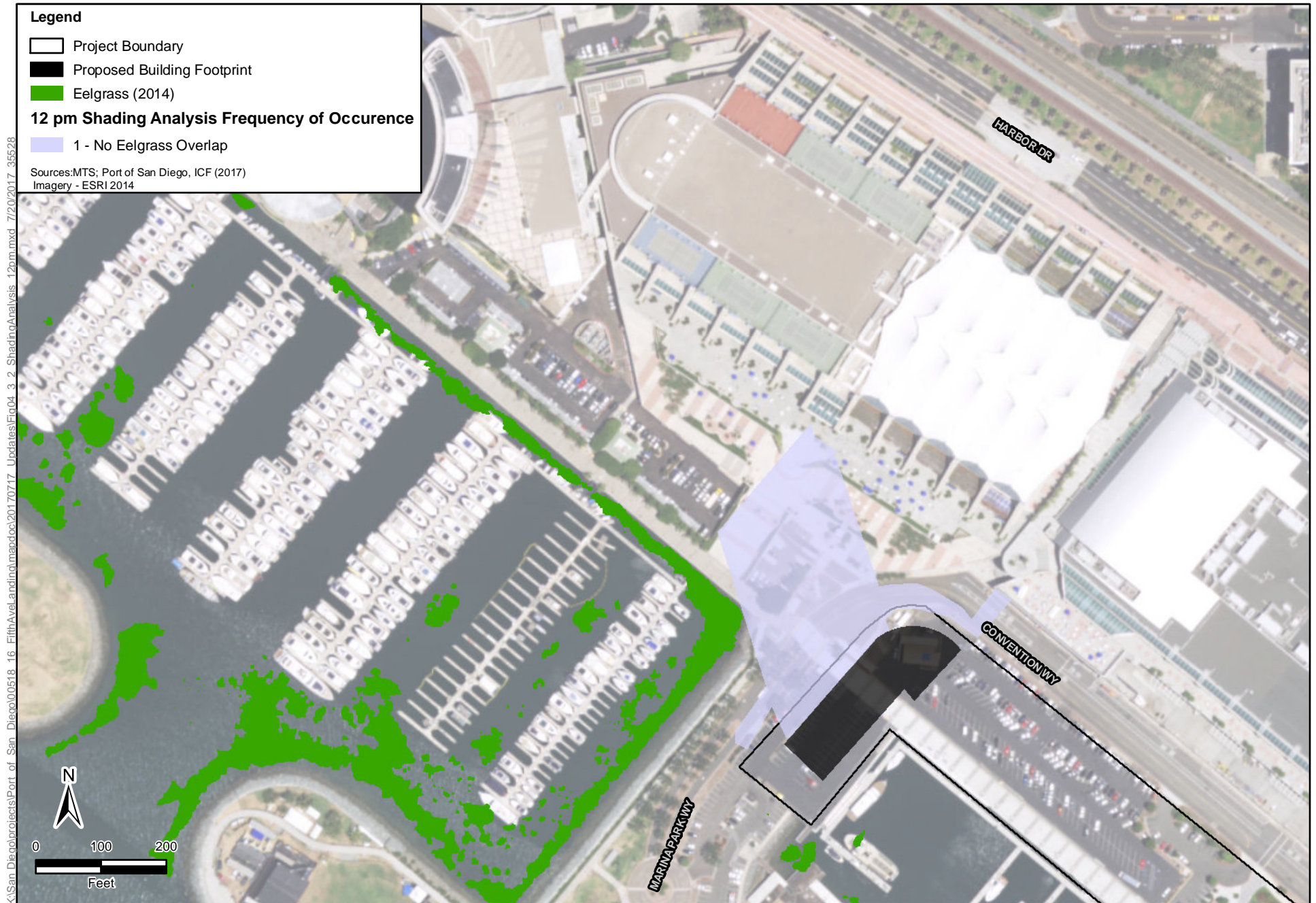
As shown on Figure 4.3-1, the proposed market-rate hotel tower would cause new shading over a portion of the eelgrass beds located northwest of the project site until approximately 10 a.m. during all seasons. As shown on Figure 4.3-2, by 12 p.m. the sun is high enough in the sky that there would be no new shading associated with the proposed market-rate hotel tower. However, the introduction of shade until 10 a.m. could significantly affect eelgrass beds by reducing available sunlight, thus reducing primary productivity (**Impact-BIO-8**) (Appendix E-2). New marina development associated with the proposed project would not only reduce the areas for open navigation, but would also increase boat traffic to the area. With this increased boat traffic, there would be a potential physical impact on the Campbell Shipyard Mitigation Cap Site through physical disturbance from boaters, and through propeller washing effects during docking activities (**Impact-**

BIO-8). Vessels transiting near the Campbell eelgrass beds could disturb eelgrass beds directly from running aground on the ocean floor. Vessels are not expected to produce velocities that would significantly disturb sediment particles; however, propeller wash impacts could occur if vessels are pushed off course due to wind, inexperience, or negligence.

Implementation of the marina expansion would also result in a net loss of open water habitat, which would be replaced with physical habitat from marina piles and floating docks. Net gain in vertical structural habitat type is a valuable replacement for the loss of unvegetated soft bottom habitat; however, as discussed in Threshold 1, a loss of open water habitat would affect foraging opportunities for California least tern and nearshore marine resources (**Impact-BIO-5**).

Additionally, the installation of new piles to create the marina would affect benthic infaunal invertebrates that live within the soft sediments. The invertebrates living within the sediments where piles are placed would be displaced as the soft bottom habitat itself would be displaced by the piles. 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. These hard structures would be colonized by sessile invertebrates and algae. They 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 marina. 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, regulations or by CDFW, NMFS, or USFWS. Potentially significant impact(s) include the following.

Impact-BIO-5: Loss of Open Water Habitat from Marina Operations, as discussed under Threshold 1.

Impact-BIO-7: Potential Reduction in Eelgrass Habitat and Productivity During Construction. In-water construction activities have the potential to affect eelgrass beds adjacent to the marina expansion portion of the project. Impacts may include direct physical disturbance to the beds from anchoring and staging of equipment, through shading from construction-related equipment, and from elevated turbidity levels from construction-related activities such as pile driving. The potential reduction in eelgrass habitat would be significant.

Impact-BIO-8: Potential Loss of Eelgrass Habitat Due to Increased Boat Traffic, Marina Operations, and Increased Shade from Hotel Operations. Operations associated with both the landside and waterside portions of the proposed project have the potential to affect eelgrass beds due to increased boating traffic disturbing eelgrass beds, and shading of eelgrass habitat from overwater structures and the hotel. This impact would be potentially significant.

Mitigation Measures

For **Impact-BIO-5**:

Implement **MM-BIO-5: Implement Overwater Coverage and Structural Fill Mitigation in Coordination with NMFS, CDFW, USFWS, RWQCB, USACE, and the District to Compensate for Loss of Open Water Habitat and Function**, as described above.

For **Impact-BIO-7**:

MM-BIO-6: Develop an Eelgrass Mitigation and Monitoring Plan in Compliance with the California Eelgrass Mitigation Policy. 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 (Appendix E-5). 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 has impacts on eelgrass. The specific eelgrass mitigation plan elements shall include:

- Prior to the commencement of any in-water construction activities, a qualified marine biologist retained by the project proponent and approved by the District shall conduct a preconstruction eelgrass survey. Surveys for eelgrass shall be conducted during the active eelgrass growing season (March–October), and results will be valid for 60 days, unless completed in September or October; if completed in September or October, results will 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 retained by the project proponent and approved by the District shall conduct a post-

construction eelgrass survey during the active eelgrass growing season. The post-construction survey shall evaluate potential eelgrass impacts associated with construction. Upon completion of the post-construction survey, the qualified marine biologist shall submit the survey report to District and resource agencies within 30 days.

- At least 2 years of annual post-construction 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, vessels associated, and water circulation impacts noted in the project's marine biological assessment (Appendix E-1).
- In the event that impacts on eelgrass are detected, the project proponent shall implement the following:
 - A qualified marine biologist retained by the project proponent and approved by the District shall develop a mitigation plan for in-kind mitigation. The qualified marine biologist shall submit the mitigation plan to the District and resource agencies within 60 days following the post-construction survey.
 - Mitigation for eelgrass impacts shall be at a ratio of 1.2:1 at the proposed mitigation site identified at the decommissioned South Bay Power Plant cooling water intake channel.
 - 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 E-5).
 - 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 E-5).

MM-BIO-7: Avoid or Mitigate Impacts on Eelgrass Due to Anchored Barges, Boat Navigation, and Propeller Wash. Tug and barge operators shall ensure that anchored construction barges are located outside of eelgrass beds. The preconstruction and post-construction eelgrass surveys required under **MM-BIO-6** shall also identify and demarcate the distribution of eelgrass to assist tug and barge operators and to assess any impacts on eelgrass that may occur. Additionally, tug boat operators shall be instructed that propeller wash can damage eelgrass beds and the integrity of the sediment cap at the adjacent Campbell Shipyard Mitigation Cap Site. No anchoring (and other bottom-disturbing activities) shall occur within eelgrass beds, and propeller wash shall not be directed toward eelgrass beds. If an unanticipated impact on eelgrass occurs, this impact shall be mitigated by replacing the eelgrass at a ratio of 1.2:1, as specified in the California Eelgrass Mitigation Policy (Appendix E-5), and included in the mitigation and monitoring plan identified under **MM-BIO-6**.

For Impact-BIO-8:

MM-BIO-8: Implement Boater Education and Marina Lease Requirements, and Install Navigation Aids and Demarcate Eelgrass Adjacent to the Marina. Prior to operation of the proposed marina, the project proponent shall draft and implement marina lease requirements and a boater education program, and install navigation aids and a floating barrier to demarcate the eelgrass beds and create a visible barrier to better protect the eelgrass mitigation site from being affected by negligent boating.

Implement **MM-BIO-6: Develop an Eelgrass Mitigation and Monitoring Program in Compliance with the California Eelgrass Mitigation Policy**, as described above.

Implement **MM-HWQ-1: Marina Best Management Practice Plan and Copper Reduction Measures**, as described above.

Level of Significance after Mitigation

Implementation of **MM-BIO-5** would reduce impacts on sensitive avian species and nearshore marine habitat (**Impact-BIO-5**) to less-than-significant levels by requiring implementation of any combination of the following mitigation options: removing overwater coverage and structural fill in the Bay or the San Diego region; restoring eelgrass habitat at the South Bay Power Plant cooling water intake channel or an alternative mitigation site of equivalent size and value within San Diego Bay; purchasing credits for a suitable in lieu fee program or mitigation bank; and/or purchasing credits from the District's shading credit program. Implementation of **MM-BIO-6** and **MM-BIO-7** would reduce impacts on eelgrass during construction (**Impact-BIO-7**) 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 (**MM-BIO-6**), and by clearly demarcating the extent of eelgrass within the project area to help construction operations avoid anchoring and other bottom-disturbing activities within eelgrass beds (**MM-BIO-7**). Implementation of **MM-BIO-6**, **MM-BIO-8**, and **MM-HWQ-1** would reduce impacts on eelgrass habitat from marina and hotel operations (**Impact-BIO-8**) to less-than-significant levels by mitigating any loss to eelgrass habitat at a 1.2:1 ratio, as prescribed in the California Eelgrass Mitigation Policy (**MM-BIO-6**), by implementing a boater education program and marina requirements and installing navigation aids demarcating eelgrass beds adjacent to the marina to prevent boating impacts on eelgrass habitat (**MM-BIO-8**), and by minimizing surface water impairment through implementation of Marina Best Management Practice Plan and copper reduction measures (**MM-HWQ-1**).

Threshold 3: Implementation of the proposed project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA through direct removal, filling, hydrological interruption, or other means.

Impact Discussion

As stated in Section 4.8.3 in Section 4.8, *Hydrology and Water Quality*, it is not anticipated that the project would require a CWA Section 404 permit. The project site does not contain federally protected wetlands as defined under Sections 401 and 404 of the CWA or the California Coastal Act. Therefore, construction and operation of the proposed project would not affect federally protected wetlands.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not have a substantial adverse effect on federally protected wetlands. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 4: Implementation of the proposed project would not 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.

Impact Discussion

Native wildlife movement corridors have not been identified within the project site, and no substantial impediment to nursery sites or wildlife movement would occur with project construction and operation. Marine habitats used by wildlife have the potential to be affected, as discussed below.

Terrestrial

The landside portion of the project site, including the offsite areas, is urban/developed and does not contain any natural wildlife habitat or vegetation communities. Onsite vegetation consists of landscaped ornamental species. No wildlife corridors have been identified on site. As such, construction and operation of the proposed project would not occur within an area that is critical to wildlife movement, nor would it impede wildlife access to areas adjacent to the project site. Impacts would be less than significant.

Marine

The waterside portion of the project site contains eelgrass as well as the potential for occurrence of protected marine wildlife species such as green sea turtles and several marine mammals. Eelgrass is also a nursery area for many commercially and recreationally important finfish and shellfish (Heck et al. 2003). While the marina development and landside portion of the proposed project have the potential to affect eelgrass and open water habitat and special-status wildlife species (see Thresholds 1 and 2 above), the project site contains uses typical for San Diego Bay inner harbors, and the habitat types and species are all common throughout the Bay. The waterside area is currently used by private and commercial vessels. As discussed in Threshold 2, the expansion of the marina would provide additional hard substrate for organisms. These hard structures would be colonized by sessile invertebrates and algae. They 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 supporting the marina and within the immediate area surrounding the piles. Therefore, construction and operation would not substantially interfere with the movement of any native resident or migratory fish or wildlife

species. The project also would not interfere with established native resident or migratory wildlife corridors because none have been identified on site.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not substantially interfere with the movement of fish or other wildlife species. Moreover, it would not substantially impede the use of native wildlife nursery habitat. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

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 Port Master Plan, San Diego Unified Port District Code, and the District's Integrated Natural Resources Management Plan (INRMP). The District and the U.S. Navy Southwest Division maintain and implement the INRMP. The INRMP catalogues the plant and animal species around the 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 fisheries 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 mitigation measures outlined in Thresholds 1 and 2, the landside and waterside components of the proposed project would not conflict with the INRMP, as the project is 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, in the City of San Diego, local habitat, species, and biological resources are protected under the City's MSCP, which is implemented through the MSCP Subarea Plan (City of San Diego 1997). The City's MSCP Subarea Plan was developed to meet the requirements of the California Natural Communities Conservation Planning Act of 1992 and, as such, serves as the City's approved local natural community conservation plan. To implement its portion of the MSCP preserve, the City developed the Multi-Habitat Planning Area (MHPA), which is considered an urban preserve that delineates core biological resource areas and corridors targeted for conservation. The City's MSCP and MHPA do not apply to the project because the project site is located within the

District's planning jurisdiction. Moreover, although the MSCP does show its boundaries to include the project site, the project site is not identified within the MHPA.

There are no other local policies or ordinances protecting biological resources that apply to the proposed project. Therefore, the proposed project would not conflict with local policies or ordinances protecting biological resources, and no impact would occur.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not conflict 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 is required.

Level of Significance after Mitigation

Impacts would be less than significant.

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 proposed project's effect on historical resources, archaeological resources, paleontological resources, and discovered human remains.

For purposes of CEQA, cultural resources referred to as *historical resources* consist of intact built environment resources dating from the historic period (50 years old or older) and archaeological resources, which include prehistoric resources (pre-contact with Europeans) and historic resources (post-contact Native American and European). 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*.

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: Excavation Related to the Proposed Project would Potentially Damage Significant Archaeological Resources	MM-CUL-1: Archaeological monitoring in areas of sensitivity	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.
Impact-CUL-2: Potential to Disturb Buried Paleontological Resources	MM-CUL-2: Paleontological Monitoring in Areas of Sensitivity	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

4.4.2.1 Prehistoric Context

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 (BP) (Warren 1966). 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 (Rogers 1966; Warren 1966, 1967). 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 ground stone technology for processing vegetal products such as seeds or acorns (Carrico 2008).

Approximately 8,000 years ago the economic focus of the 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 1,500 years (BP) (Carrico 2008). 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 exploitation of 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 (Moratto 1984). 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—is marked by the movement of Yuman-speaking people from the eastern deserts into southern California, around 2,000–1,500 years ago. They maintained a lifestyle heavily reliant on acorns from oak trees, and the hunting and gathering of smaller game and seed-producing plants (True 1966). Several technological changes occur during this time, including the appearance of bow and arrow technology, the introduction of pottery, and a shift in the disposal of human remains away from flexed burials to cremation. During this period semi-sedentary villages became more common along water courses as all the three main ecological zones in region (coastal, inland valleys, and mountains) were exploited throughout the year as resources became available (Carrico 2008).

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 (Luomala 1978). The Kumeyaay were organized patrilineal, patrilocal lineages that claimed prescribed territories but did not own the resources in general (Shipek 1982). The Kumeyaay occupied villages during the year and would occupy residential bases in the foothills/mountains during the summer and the lower elevations in the winter with numerous campsites throughout as they exploited seasonally available resources

(Carrico 2008). Acorns were the most important staple of the diet as indicated by the presence of numerous large habitation sites near the locations of abundant oaks and bedrock suitable for milling. Grass seeds, sages, berries, wild greens, and fruits were eaten. 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 (Spier 1923). 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 shaman and a *cimul* (Shipek 1991).

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 military 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 and introduced horses, cattle, agriculture, and new construction materials, methods, and styles. In 1774, the mission was moved 5 miles east nearer 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, culminating in the sacking and burning of the mission in 1775 (Carrico 2008).

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 (McGinnis and Baksh 2008). During the Mexican Period the Pueblo of San Diego (including the present project site) 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 (City of San Diego 2001). 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 (Shipek 1987).

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 drowned out 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 (McGinnis and Baksh 2008). 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 ten reservations were finally established in San Diego County (Shipek 1987).

4.4.2.3 Historic Setting

During the Spanish and Mexican periods of California history, and the first decades of the American period, San Diego's population and development remained centered in Old Town, approximately 4 miles northwest of the terminal site. Native Americans made use of the marshy tidelands south of

Old Town, in the vicinity of today's downtown San Diego and areas farther south. However, European colonists, Hispanic settlers, and American newcomers did not frequent these areas. Following William Heath Davis's failed attempt to promote settlement nearer to the harbor, at New Town, Alonzo Horton purchased 800 acres of land around New Town in 1867. By 1870 Horton's Addition—the second New Town San Diego—had 2,300 residents and a growing number of hotels, warehouses, and industrial and residential buildings that formed an increasingly urbanized built environment. Near the end of that decade, National City's Frank Kimball persuaded the Atchison, Topeka, and Santa Fe Railroad (Santa Fe) to support construction of a transcontinental connection from San Bernardino south to San Diego and National City. This line, the California Southern Railroad, was completed during the early 1880s and eventually acquired by the Santa Fe (Brian F. Smith and Associates 2011, District 2012). Marking the edge of San Diego Harbor, the Santa Fe line was aligned from approximately 700 to 800 feet north and east of the project study area, which was within the harbor waters at that time.

For decades, development within the project area was limited to the creation of wharfs and associated buildings constructed on pier pilings. Several bathhouses and plunge buildings, along with numerous shanties, were constructed on piers east of the project site along the shoreline. Land east of the tideline was dominated by industrial uses during the late nineteenth and early twentieth centuries. Sanborn Fire Insurance maps indicate that by 1906 the San Diego Lumber Company and the Pacific Coast Steamship Company had built substantial wharfs into the Bay that extended into the project area. In 1900 the San Diego Rowing Club (SDRC) constructed a clubhouse on the Pacific Coast Steamship Company wharfs, which became a leading focal point of recreational activity in the city of San Diego. For decades prior to and after creation of the SDRC facility, an era predating widespread concern about the health risks that pollutants posed for water recreations, the tidelands in the project vicinity served as a site of garbage disposal. Indeed the City constructed a garbage incinerator sometime between 1906 and 1921 on land formed of trash deposits and dredged fill material, which gradually expanded the shoreline nearer to the project site (District 2012, Seymour 2013).

The SDRC undertook several improvements involving buildings and structures within the project area during the interwar decades. In 1934, harbor dredging to accommodate larger Navy ships resulted in the creation of a small island south of the San Diego Rowing Club's clubhouse, which was named for City Port Director Joe Brennan. The club leased Brennan Island and transformed it with landscaping and construction of a handball courts building. This, along with additions to the clubhouse building, substantially expanded the club's facilities within the project area (District 2012, Seymour 2013).

The filling of tidelands in the project vicinity continued through the interwar decades of the 1920s and 1930s. Fill efforts extended developable land and Bay shoreline into the project area by the late 1930s. Aligned northwest-southeast slightly to the southwest of today's Convention Way, Harbor Avenue marked the edge of developable land in the project vicinity by the late 1930s. Although the City garbage incinerator was removed from the project vicinity sometime in the 1930s, an area designated by the City as a garbage disposal site, which included a ramp and garbage shoot, remained present east of the project site into the early 1940s. Land immediately east of Harbor Avenue created through fill efforts in the 1920s and 1930s was occupied into the mid-1950s by the American Products Inc. lumber yard. The far western portion of the lumber yard, which included the eastern portion of the project study area at today's Convention Way, contained an office building, a

garage and repair building, and a lumber and building materials warehouse (District 2012; Sanborn Fire Insurance Company 1940, 1956).

During the 1970s, the land along the Bay became much more valuable for recreation and tourism. Existing businesses and industrial operations were slowly removed, the first two phases of the San Diego Convention Center (SDCC) were built, and hotels and resorts sprang up all along the bayfront. During the mid-1970s, the SDRC lost its access to Brennan Island, which was subsumed within new fill to create Embarcadero Marina Park South. The SDRC's historic clubhouse (discussed in more detail below) was listed on the National Register of Historic Places (NRHP) in 1978 (historicaerials.com 1972, 1980; District 2012; Seymour 2013).

4.4.3 Existing Historical Resources

In addition to the general prehistoric, ethnographic, and historic setting discussion provided above, records searches, Native American consultation, and a site visit were conducted to identify specific existing historical resources within 0.5 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, and 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; consultation with the Native American Heritage Commission (NAHC) and Native Americans; and a site visit. The site visit was conducted on October 24, 2016, to confirm that the historic SDRC remains present adjacent to the project site and to assess the building's historical integrity. These studies were conducted in compliance with CEQA (Public Resources Code [PRC] Section 21000 et seq.), pursuant to the State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.), and are described below.

Records Search

ICF obtained a records search from the South Coastal Information Center (SCIC) at San Diego State University. The records search and literature review provides for identification of previously documented archaeological and historic-era built environment resources within the project area and within a 0.5-mile radius of the project area. The search included the following elements of the California Historical Resources Information System (CHRIS): previously recorded sites, previously recorded studies, California Points of Historical Interest, California Historical Landmarks, the NRHP, the California Register of Historical Resources (CRHR), California Inventory of Historic Resources, the Office of Historic Preservation's Historic Properties Directory, and San Diego area historic maps.

The project site overlaps with the easterly portions of the District's SDCC Phase III Expansion and Expansion Hotel Project & Port Master Plan Amendment EIR (SDCC Phase III Expansion Project). The only portion of the current Fifth Avenue Landing project site not within the SDCC Phase III Expansion Project area extends into San Diego Harbor waters. Therefore, the results of a record search conducted at the SCIC in 2011 for the SDCC Phase III Expansion Project, incorporated herein by reference, were used as a baseline for identifying previously recorded archaeological sites and

historic buildings within 0.5 mile of the project area. On September 21, 2016, an ICF archaeologist conducted a supplemental records search for archaeological sites and historic buildings not identified in the 2011 record search that are located within 0.5 mile of the project area.

Native American Consultation

On September 27, 2016, ICF requested a review of the sacred lands files from the NAHC. The NAHC responded on September 29, 2016, stating that the sacred lands files failed to indicate the presence of Native American cultural resources in the study area. The NAHC also provided a list of 20 Native American individuals and organizations that may have knowledge of cultural resources in the project area. On October 4, 2016, outreach letters were sent to all 20 individuals and organizations identified by the NAHC (see Appendix F-1). As of the date of circulation, no responses have been received.

Site Visit

Because the landside portion of the project site consists of harbor fill and is entirely developed with buildings, structures, pavement, and modern landscaping, a site visit was not conducted to identify historical resources.¹ A site visit was conducted for historic built environment resources on October 24, 2016.

4.4.3.2 Results

Historical Resources

As shown in Table 4.4-2, the combined results of the 2011 and 2016 record searches indicated that within 0.5 mile of the project site, no prehistoric archaeological resources and 13 historic period archaeological resources have been recorded previously. The records search also identified 14 historic period buildings or structures within 0.5 mile of the project site.

One previously recorded archaeological resource, a historic archaeological site, is within the project site: CA-SDI-15118H. To date, no responses to the District's letters to the individual tribes for the Native American outreach have been received.

¹ Efforts to identify recorded historical resources and determine their potential presence within and around the project site included consultation with the NAHC and Native Americans, the records search, and analysis of historic maps and aerial photographs.

Table 4.4-2. Cultural Resources Recorded within the Half-Mile Record Search Area

Primary	Trinomial	Description
37-008723	CA-SDI-8723	Historic structures
37-013073	n/a	Historic Coronado Railroad
37-016300	n/a	Historic building foundations and refuse associated with Chinatown
37-017104	CA-SDI-15118H	Historic trash deposit
37-018822	CA-SDI-15688	Historic trash deposit
37-023865	CA-SDI-15978	Historic trash deposit
37-024739	CA-SDI-16385	Historic Railroad
37-025359	CA-SDI-16822	Historic foundations, privies and trash deposits
37-025443	CA-SDI-16888	Historic foundations, privies and trash deposits
37-025680	n/a	Historic Railroad
37-027908	CA-SDI-18140	Historic privies and trash deposits
37-028495	n/a	Gaslamp Historic District
37-028565	CA-SDI-18378	Historic trash deposit

CA-SDI-15118H

This site was recorded in May 1999 and then updated in August 2006. It is described as a large historic era trash dump located in the former tidelands that existed all along the edge of San Diego Bay in the vicinity of the project area. Materials recovered dated from the 1890s to the 1930s. The context included black ash and toxic materials intermixed with commercial and residential trash. The site covers a very broad area and was encountered frequently during construction of the SDCC Phases I and II Expansion Projects (SDCC Phase I and Phase II). Items observed included milk bottles, canning jars, bleach bottles, food crocks, glass doorknobs, beverage bottles, condiment bottles, ceramic dishes, patent medicine bottles, tableware, and saw-cut butchered cow bones. Monitoring conducted as part of the SDCC Phase I and Phase II construction concluded that the site was not significant, but subsequent monitoring for the Hilton San Diego Bayfront Hotel and associated parking structure concluded the site was significant (Pierson 2006). The site has never been formally evaluated for inclusion in the NRHP, the CRHR, or the San Diego City Historical Resources Register.²

Historic Built Environment Resources

The records searches indicated that the project site contains no intact built environment resources 45 years of age or older. One resource, a building listed in the NRHP and in the City of San Diego Register of Historical Resources, is immediately adjacent to the project site: the San Diego Rowing Club. Because the SDRC is immediately adjacent to the project site, it is considered part of the historical built environment study area for the purposes of assessing the proposed project's potential to result in impacts on historical resources. This resource's historical significance and integrity are addressed below. A Department of Parks and Recreation (DPR) 523L Update Form assessing the SDRC's historical integrity was prepared as technical documentation to support

² Refer to Section 4.4.4.1 for an explanation of the NRHP, CRHR, and San Diego City Historical Resources Register.

analysis of the project's potential to result in impacts on the resource. The NRHP and City of San Diego Nomination Forms for the SDRC are attached to the DPR 523L Update Form and included in Appendix F-2.

San Diego Rowing Club

Description

Irregular in plan, with a multi-ridged cross-gabled roof, the vernacular wood-framed SDRC building faces northwest and is raised above tideland waters by non-original concrete pilings or piling caps instead of exposed wood pilings. The building is located adjacent to the project site. The building's main original volume has the highest roof ridge and forms the west portion of the building's current footprint (Figures 4.4-1 and 4.4-2). A lower gabled wing extending to the northeast originally formed a boat launch at its northeast end when constructed in 1905 (Figure 4.4-2). Today, these northerly volumes more closely resemble the building's appearance in 1905 than its appearance by the 1930s and up through 1978, when it was listed on the NRHP (Figure 4.4-3). A rear, intersecting gable-roofed volume extending to the southeast is a product of alterations since 1978, though the building did extend to the southeast with various gabled, flat, and shed roof additions beginning in 1905.

The building is approached from a parking lot to the northwest and a park to the southwest by piling-supported wood gangways. Exterior walls are clad in replacement board-and-batten that may be synthetic, but sensitively resembles the building's original board-and-batten cladding. Not present in 1978 when the building was nominated for NRHP listing, a restored veranda wraps from the main entrance at the west end of the front (northwest) elevation's lower gabled wing, across the higher gabled volume to the west, and across the southwest elevation. The veranda has exposed rafter tails, squared wood supports, and cross-braced wood railing, features which were part of the building's veranda during the first decade of the twentieth century. Although not part of the original building design, the wood cross-braced railing now lines both gangways and has been extended across the entirety of the building perimeter, including the building's non-original southeasterly wing. The northeast wing has been altered to accommodate perimeter circulation. Fenestration consists mainly of six-light wood-framed casement windows. Many are in non-original openings. Although the building has more windows than it did historically, the windows fit well with the property's historic vernacular design aesthetic. Entries are secured by wood doors with multi-light glazing. One of the building's most distinctive historical features occurs at the central ridge of its highest, main gabled volume. There, a cupola-like structure with board-and-batten cladding and wood-framed four-light casement windows forms the base of an observation deck resembling a widow's walk and incorporating wood cross-braced railing. At the northwest slope of the roof is a restored platform access consisting of a dormer-like structure clad in board and batten, stairs, and wood cross-braced railing. Present during the early twentieth century but not in 1978, the platform access was restored after the building was listed in the NRHP. Finally, at the rear of the building a gangway extends southeast to a replica of a boat launch that was positioned at the northeast side of the building circa 1900 (Figure 4.4-1). Like the original boat launch, the replica has a Dutch gable roof with exposed rafter tails supported by four pilings.

In addition to the heavily altered southeasterly rear portion of the building and the modified end of the northeast wing, other changes since 1978 include installation of "Joe's Crab Shack" signage at two locations on the building exterior and slightly raised skylights visible across several roof slopes.

Significance and Integrity

The SDRC was designated as a local historical landmark by the City of San Diego's Historical Resources Board and listed in the City's Register of Historical Resources in July 1975. In January 1978, club members and local preservationists finally succeeded in their efforts to have the club building listed on the NRHP (Seymour 2013:18). The NRHP nomination form for the resource did not specify any of the four NRHP Significance Criteria (see continuation sheet within the DPR 523L Update Form). It identified the resource's area of significance as "other, Sports" and emphasized its importance to San Diego's history of recreation generally and aquatic recreation specifically. As explained in the nomination,

The SDRC is one of the oldest such clubs in California. Organized in 1888 as the Excelsior Rowing and Swimming Club, the club has been a major aquatic athletic organization in San Diego since its founding. Its membership included many civic leaders and important local persons. It was the major center of activity for aquatic sports in the City of San Diego throughout much of its history. It also was a leader in local social activities, sponsoring one of the earliest Sea Scout ship companies in California. Today it remains as the last surviving recreational boathouses in the city of San Diego, one of the last two on San Diego Bay, and the last to continue functioning in its original use (Unnamed Author 1978:8-1).

Accordingly, the SDRC should be considered significant under NRHP Criteria A, at the local level, for its importance within the context of recreational sports and aquatic athletics in San Diego history. As a property listed in the NRHP and in the City of San Diego's Register of Historical Resources, the SDRC is automatically listed in the CRHR and qualifies as a historical resource under CEQA.

At the time the SDRC was listed in the NRHP, the building stood in a state of disrepair and under threat of demolition. The NRHP nomination noted that an engineering firm had evaluated the building's structural integrity and recommended "repair to the support piling and strengthening the building to resist contemporary design earthquake and wind loads" (Unnamed Author 1978:7-1). During the early 1980s, a restaurant company, Chart House Enterprises, Inc., saved the building. As author Joey Seymour has explained in a history of the SDRC:

A surprising 5-1 vote by the port commissioners on June 2, 1981, approved plans for the Chart House to move in and renovate SDRC's clubhouse. The Evening Tribune reported on July 3, 1981, 'Chart House says it will save as much of the old building as possible. It wants the real thing, not a replica. It says it will get to work as soon as a lease is signed and permits granted.' Goddard [vice president of Chart House Restaurants] dedicated \$1.5 million to the project and, in June 1983, the clubhouse of the San Diego Rowing Club was reopened as the Chart House Restaurant. A dedication ceremony, much like the one held in 1900, took place on January 1, 1984. Members of the SDRC gathered at the restaurant for their annual dip into San Diego Bay (Seymour 2013:19).

The \$1.5 million investment made by the Chart House included construction of a parking lot and bulkhead, but also substantial construction involving the SDRC building itself and its piling foundation. Wood pilings were either replaced or fitted with concrete jackets. The building was reduced in size from approximately 14,000 square feet to approximately 12,600 feet. Construction involving the building included "shoring and/or reinforcement of structural members, removal of debris from the water, and temporary removal of parts of the structure to gain access to, and to relieve structural loads on, adjacent and subjacent structures." Construction was conducted in accordance with "the State of California Historical Building Code, the Secretary of the Interior's 'Standards for Rehabilitation and Guidelines for Rehabilitating Restored Buildings,' and the Secretary of the Interior's 'Standards for Historic Preservation Projects'" (Chart House Enterprises 1981, Stoddard 1981 [quoted]).



Photo 1: October 24, 2016, View to the Southeast toward the Front Elevation



Photo 2: October 24, 2016, View to the Southwest



Photo 3: Circa 1900, View to the West, NRHP Nomination Form Photo



Photo 4: August 1908, View to the West, NRHP Nomination Form Photo

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Photo 5: 1970s, View to the Southwest, NRHP Nomination Form Photo

Figure 4.4-3
San Diego Rowing Club, Photo 5
Fifth Avenue Landing Project

The work undertaken by the Chart House changed the building so that it would more strongly resemble its appearance during the first decade of the twentieth century. The SDRC's historical integrity of association was diminished by its adaptive reuse as a restaurant and the severing of its association with aquatic recreation. However, with respect to the resource's original 1899–1905 appearance, the improvements undertaken by Chart House Restaurants during the early 1980s actually improved the integrity of design, workmanship, and materials at the northern, front portions of the building. Despite the heavily altered southeasterly rear portion of the building, the modified end of the northeast wing, and the installation of “Joe’s Crab Shack” signage and new skylights, the building better resembles its 1899–1905 appearance than it did when listed on the NRHP in 1978. Certainly the setting of the SDRC building has changed over the years. By 1978, former Bay waters and a wharf to the north, west, and south of the building had been replaced by fill land that was eventually developed into a park and parking lots. Handball courts and other club facilities located on a small island created as a result of dredging activity in 1934 south of the club building, and connected to the club building by a gangway, were also eliminated by the 1970s fill project. Since 1978, development associated with the Civic Center, new recreational infrastructure, and construction of numerous high-rise hotels have replaced the earlier industrial harbor-front built environment in the vicinity of the SDRC. However, the building continues to stand on pilings that raise it above tideland harbor waters, and thereby maintains a close spatial relationship to the water, which comprises the most important aspect of its integrity of setting. Overall, therefore, the SDRC building retains sufficient historical integrity to convey its historical significance. It continues to qualify as a historical resource for the purposes of CEQA.

4.4.3.3 Paleontological Setting

The project site consists of recent Holocene fill deposits that originated from human dumping from the late 1800s to the present (District 2012). Interspersed with the fill deposits are Bay dredgings that may include marine vertebrates and invertebrates. These remains have little to no value because they have been removed from their original depositional context. As such, their area of origin is unknown.

Quaternary age Bay Deposits and the Bay Point Formation (now the Old Paralic Deposits) underlie the fill (District 2012). Fossils collected within the Bay Point Formation (now the Old Paralic Deposits) consist primarily of well-preserved remains of nearshore marine invertebrates including shells of oysters, scallops, clams, snails, barnacles, crabs, and sand dollars. These marine invertebrate assemblages are generally diverse and often contain warm water southern extralimital species of mollusks that no longer live at this latitude. Also recovered from these sites are sparse dental remains of sharks and rays, as well as rare remains of land mammals. These are deposits dating from the middle to late Pleistocene, circa 700,000 to 10,000 years old. These are highly sensitive fossil deposits containing a highly diverse range of marine vertebrates and invertebrates. This formation is assigned high resource sensitivity by the City of San Diego (City of San Diego 2016). A more detailed discussion of the geology and soils surrounding the project site is provided in Section 4.5, *Geology and Soils*.

4.4.4 Applicable Laws and Regulations

4.4.4.1 State

California Environmental Quality Act and Public Resources Code Section 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, 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.

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 it 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.”

4.4.4.2 Local

As a property under the jurisdiction of the District, the project site is not within the jurisdiction of the City of San Diego. Therefore, the proposed project is not subject to review and approval by the City of San Diego’s Historical Resources Board. Consequently, the significance criteria outlined in the Historical Resources Guidelines of the City of San Diego’s *Land Development Manual* is not used to evaluate cultural resources within the study area for 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.

Impacts on existing religious or sacred uses include direct disturbance and/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). The City of San Diego’s Thresholds were developed based on consultation with expert opinions from the San Diego Natural History Museum that have detailed knowledge of the location of paleontological resources within the San Diego County 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 resulting from implementation of the proposed project. The determination of whether a cultural 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. Cause a substantial adverse change in the significance of a historical or archaeological resource as defined by Section 15064.5 of the State CEQA Guidelines.
2. Direct or indirect destruction of a unique paleontological resource or site or unique geologic feature.
3. Disturb human remains, including those interred outside of formal cemeteries.

Supplemental Threshold for Paleontological Resources

To assist in the determination of significance related to the proposed project's impacts on paleontological resources, the District will utilize 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 or archaeological resource as defined in Section 15064.5.

Impact Discussion

Impacts on Historical and Archaeological Resources

Because it is situated on harbor fill placed during previous improvements to the Bayfront in the 1920s, it is unlikely that the project site contains prehistoric archaeological resources. However, given the history of the project site, and the resources previously recorded within and in proximity to its footprint, there is a potential that historical archaeological resources, specifically CA-SDI-15118H, could be unearthed during project construction.

As discussed in Section 4.4.3.2, CA-SDI-15118H is the large historic period dump under the SDCC encountered during both Phase I and Phase II of SDCC Expansion construction. Monitoring conducted as part of the SDCC Phase I and Phase II construction concluded that the site was not significant, although subsequent monitoring for the Hilton San Diego Bayfront Hotel and associated parking structure concluded the site was significant (Pierson 2006). Moreover, it is possible that this

site could continue south into the current paved parking area within the project area at the southwest side of Convention Way. Portions of CA-SDI-15118H could be unearthed during excavation undertaken as part of proposed construction activities in this area, which is shown on Figure 4.4-4.

It is unlikely that any of the refuse discovered would be considered significant for the purposes of CEQA because the refuse is out of context, having been produced elsewhere, and then brought to the tidelands and dumped. There may be interesting materials and individual items of merit, though such materials or items would likely not allow for the types of analyses typically performed on historical archaeological collections. Most of the material would likely not be directly associated with specific homes or businesses, so there would be no way to look at population consumption patterns or consumer buying behavior, nor address ethnicity, age, or any other demographic factors. However, the resource is large, and eligibility recommendations have varied based on observations of different portions of the resource. Therefore, because it is unknown how far the site extends, the proposed project could significantly impact CA-SDI-15118H if portions of the site were unearthed during construction (**Impact-CUL-1**).

Impacts on the Historic Built Environment

No intact buildings or structures 45 years of age or older are located within the project site. However, construction activities associated with the project will take place in proximity to the SDRC, which is a building that qualifies as a historical resource for the purposes of CEQA. Therefore, potential impacts resulting from construction and operation of the proposed project are discussed below.

Construction

The historic SDRC building is immediately adjacent to the northwestern portion of the project site. Construction activities associated with the proposed project would take place in proximity to the building, and the vibration from some activities, primarily pile driving, could reach the SDRC building. If extensive, vibration impacts on historic buildings can damage the structure, 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 SDRC building'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).

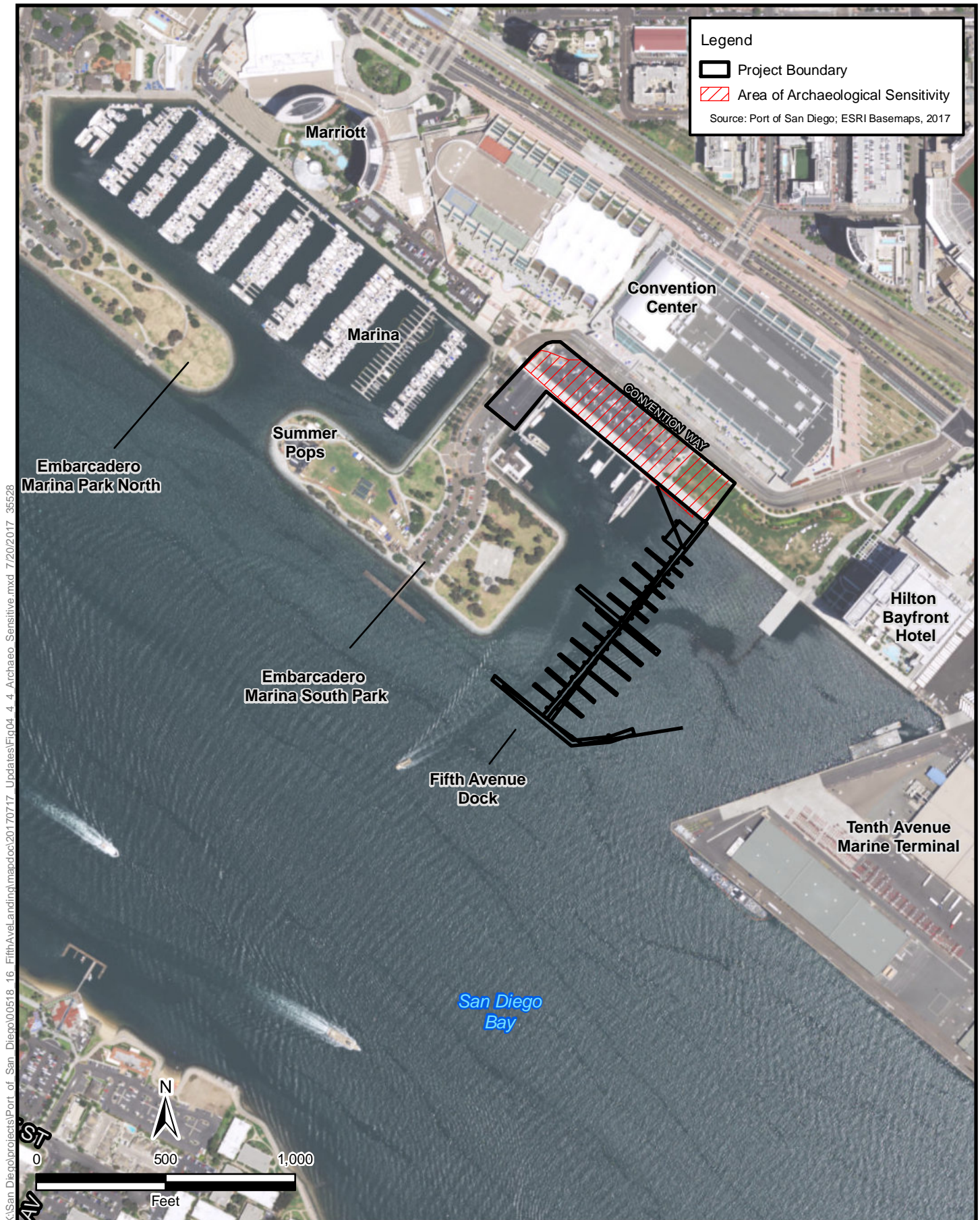


Figure 4.4-4
Area of Archaeological Sensitivity
Fifth Avenue Landing Project

Based on the vibration analysis of the proposed project detailed in Section 4.10, *Noise and Vibration*, construction activities would not generate vibration levels with potential to damage the SDRC building. For this historical resource, the proposed project's highest levels of anticipated construction vibration would involve pile driving and other activities associated with construction of the market-rate hotel tower at a distance of approximately 80 feet the north of the resource. This construction activity would qualify as a "continuous/frequent intermittent" vibration source rather than a "transient or isolated" vibration source.³ 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). At the SDRC building, pile driving and other construction activities involving the market-rate hotel tower approximately 80 feet to the north are estimated to generate vibration levels not exceeding 0.181 PPV (in/sec). Construction vibration generated by the proposed project would not, therefore, reach levels with potential to damage the SDRC building and thereby diminish its historical integrity.

Additionally, as noted above, the rehabilitation and restoration of the SDRC building in the early 1980s was a product of \$1.5 million in investment that included extensive structural enhancement of the piling foundation, demolition of much of the existing building, extensive structural reinforcement of the building to meet modern seismic safety standards, and reconstruction, all of which were executed in accordance with existing Secretary of the Interior Standards for rehabilitation and preservation of historic buildings.

Therefore, although construction activities associated with the proposed project would generate vibration at the SDRC building, vibration would not reach levels with potential to damage the building and thereby diminish its historical integrity. Construction-related vibration impacts on the SDRC would be less than significant.

Operation

The proposed project would introduce multiple buildings to the setting of the SDRC, which alter the visual landscape of the area (see Section 4.1, *Aesthetics and Visual Resources*, for more information on the general visual landscape). The proposed 850-room market-rate hotel tower would be constructed approximately 80 feet north of the SDRC at the location of the current paved parking lot situated immediately adjacent to the promenade. As identified in Table 3-1, the 44-story building would rise to a height of 498 feet. An open-air pedestrian archway built to a height of 40 feet would span the promenade to connect the hotel to its ballroom and meeting facilities. Across the marina to the northeast of the SDRC, in the area currently consisting of paved parking, the proposed project would line the Embarcadero Promenade with retail storefronts and create a new public park/plaza at the northwest side of the retail storefronts. Immediately southeast of the storefronts and plaza, the project would construct a five-story, L-shaped, lower-cost hotel that would rise to a height of 82 feet.

As noted above, the built environment in the vicinity of the SDRC has been altered since it was listed in the NRHP in 1978. Fill land that had been introduced prior to 1978 north, west, and southwest of the SDRC was developed into a park and parking lots by 1980. The industrial character of the waterfront to the north and east of the SDRC was transformed by development that introduced the

³ 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."

SDCC, hotels, and parks and other recreational facilities. SDCC and hotel development altered viewsheds from the SDRC by introducing new buildings at ample distance from the resource without altering its immediate marina setting. With implementation of the proposed project, marina waters, vessel slips, and piers would continue to separate the SDRC from project development across the existing marina from the SDRC. The proposed project would alter the immediate setting of the SDRC by introducing the new 44-story-high market-rate hotel tower within approximately 80 feet to the north. This would substantially alter landward views to the north of the building.

However, the SDRC would continue to remain in its current piling-raised position within marina tideland waters. Since the SDRC was listed in the NRHP in 1978, the ongoing spatial relationship between the building and the marina and tideland waters has functioned as the resource's most important setting-related character-defining feature. Although construction of the market-rate hotel tower would result in a visual change to the setting of the SDRC, the resource would maintain its character-defining spatial relationship to marina tideland waters in its immediate vicinity. The proposed project's introduction of the market-rate hotel tower would not diminish the SDRC's historical integrity such that it would no longer convey its significance as a historical resource under CEQA. Therefore, the proposed project's impact on the setting of the SDRC would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would cause a substantial adverse change in the significance of a historical or archaeological resource as defined in Section 15064.5. Potentially significant impact(s) include:

Impact-CUL-1: Excavation Related to the Proposed Project would Potentially Damage Significant Archaeological Resources. Portions of CA-SDI-15118H, a large historic period dump under the SDCC that may continue to the south into the project site, have the potential to be unearthed during excavation undertaken as part of the proposed construction activities on the project site. Impacts would be significant without mitigation.

Mitigation Measures

For **Impact-CUL-1**:

MM-CUL-1: Archaeological Monitoring in Areas of Sensitivity. The project proponent shall retain a qualified archaeologist(s) who meets the Secretary of the Interior's Professional Qualifications Standards, as promulgated in 36 Code of Federal Regulations 61. The qualified archaeologist shall monitor all proposed grading and excavating for the proposed project in the archaeologically sensitive portion of the project site. The sensitive portion of the project site, where it is possible that cultural materials associated with CA-SDI-15118H exist, consists of the northeastern section currently occupied by the paved parking lot along Convention Way (Figure 4.4-4 of the Draft EIR). The following measures shall only apply to the archaeologically sensitive portion of the project site during earthwork activities, including, but not limited to, grading and excavation.

- The qualified archaeologist shall participate in a preconstruction meeting to inform all personnel of the potential for historical archaeological materials to be encountered during ground-disturbing activities.

- If an isolated artifact or historic period deposit is discovered that requires salvaging, the qualified archaeologist shall have the authority to temporarily halt construction activities within 100 feet of the find and shall be given sufficient time to recover the item(s) and map its location with a global positioning system (GPS) device.
- If buried cultural materials are discovered that require salvaging, the qualified archaeologist shall be empowered to divert construction activities away from the find, and be given sufficient time to recover the item(s) and map its location with a GPS device.
- The qualified archaeologist shall treat recovered items in accordance with current professional standards by properly provenancing, cleaning, analyzing, researching, reporting, and curating them in a collection facility meeting the Secretary of the Interior's Standards, as promulgated in 36 CFR 79, such as the San Diego Archaeological Center.
- Within 60 days after completion of the ground-disturbing activity, the qualified archaeologist shall prepare and submit a final report to the District's Development Services Department for review and approval, which shall discuss the monitoring program and its results, and provide interpretations about the recovered materials, noting to the extent feasible each item's class, material, function, and origin.

Level of Significance after Mitigation

After implementation of **MM-CUL-1**, **Impact-CUL-1** would be reduced to a less-than-significant level because the recommended monitoring of any ground-disturbing activities on 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 historical resources or archaeological resources, as defined in Section 15064.5, would be less than significant.

Threshold 2: Implementation of the proposed project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact Discussion

As discussed in Section 4.4.3.3, *Paleontological Setting*, Old Paralac Deposits occur underneath the entire project site and are designated as having a high sensitivity for paleontological resources. These deposits date from the late to middle Pleistocene, roughly 10,000 to 600,000 years ago (District 2012). A tremendous variety of invertebrate and vertebrate fossils have been found in these deposits, including both marine and terrestrial animals, with mammoth and whale remains being some of the most significant. The depth that fossils may be encountered has varied, but generally they occur some 20 feet below street level.

Implementation of the proposed project would include ground-disturbing activities, such as grading and pile driving, which would extend deeper than 10 feet and result in more than 1,000 cubic yards of earthwork and excavation. Pile driving in particular would include approximately 1,200 piles for Parcels A and B (landside) driven to a depth of approximately 60 feet, and approximately 188 piles driven to depths ranging from 50 to 90 feet in the marina (waterside). As a result, the proposed project would have the potential to significantly affect paleontological resources (**Impact-CUL-2**).

Level of Significance Prior to Mitigation

Implementation of the proposed project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Potentially significant impact(s) include:

Impact-CUL-2: Potential to Disturb Buried Paleontological Resources. There is the potential to significantly affect highly sensitive paleontological resources due to excavation that would extend 10 feet or more below ground surface and would include the movement of more than 1,000 cubic yards of soil.

Mitigation Measures

For **Impact-CUL-2:**

MM-CUL-2: Paleontological Monitoring in Areas of Sensitivity. To reduce potential impacts on paleontological resources, all proposed grading and excavating to depths greater than 10 feet shall be monitored by a qualified paleontologist(s), approved by the District's Development Services Department and paid for by the project proponent. Specifically, the project proponent and/or its construction supervisor shall ensure the following measures are implemented.

- A qualified Paleontologist shall attend the preconstruction meeting 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 a 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 mitigation project supervisor in the County for at least 1 year.
- A paleontological monitor shall be on site on a full-time basis during excavation and pile-driving activities that occur 10 feet or more below ground surface, 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 selected by the qualified Paleontologist who has experience in the collection and salvage of fossil materials.
- If fossils are discovered, the Paleontologist shall recover them and temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner.
- Fossil remains collected during the monitoring and salvage portion of the mitigation 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 shall be accompanied by financial support for initial specimen storage, paid for by the project proponent.
- Within 30 days after the completion of an excavation and pile-driving activities, a final data recovery report shall be completed by the qualified Paleontologist that outlines the results of the mitigation 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 **MM-CUL-2, Impact-CUL-2** would be reduced to a less-than-significant level because the recommended monitoring of any ground-disturbing activities that occur 10 feet or more below ground surface would minimize the potential to affect a unique paleontological resource or site or unique geological feature. Impacts would be less than significant with mitigation incorporated.

Threshold 3: Implementation of the proposed project would not disturb any human remains, including those interred outside of formal cemeteries.

Impact Discussion

No human remains are known to exist in the project area, and the location does not encompass any formal cemeteries. The project site consists of a marina and fill land entirely developed with pavement, buildings, and structures. Prehistoric human remains have not previously been detected within or in the vicinity of the project site. For these reasons, the potential for human remains to be present at the project site is extremely low. Unless human remains are present in the fill due to extremely rare circumstances—such as concealment of remains after a crime—there are no human remains on the proposed project site.

However, if human remains are discovered, State Health and Safety Code Section 7050.5 requires that further disturbances and activities will cease in any area or nearby area suspected to overlie remains and that the County Coroner be contacted. Pursuant to PRC 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 PRC Section 5097.98 are to be followed as applicable. Therefore, through compliance with existing regulations, the construction and operation of the proposed project would not disturb any human remains, including those interred outside of formal cemeteries. No impact on human remains would occur, and no mitigation is necessary. Impacts would be less than significant.

Level of Significance Prior to Mitigation

The proposed project would not result in the disturbance of human remains, including those interred outside of formal cemeteries. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

4.5.1 Overview

This section describes the existing conditions and applicable laws and regulations for geology and soils, followed by an analysis related to the proposed project's potential to (1) expose people or structures to geologic hazards, (2) result in substantial soil erosion or loss of topsoil, (3) be located on unstable ground, and (4) have soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems.

Information in this section is based on the *Geotechnical and Environmental Reconnaissance Report for the San Diego Convention Center Expansion* prepared by Geocon Incorporated in 2009 (Appendix G-1) and the *Preliminary Geotechnical Evaluation Hilton Bayfront Hotel Tower Expansion* prepared by Ninyo and Moore in 2011 (Appendix G-2). The 2009 report was conducted within the proposed project site and the 2011 report was conducted adjacent to the project site. Therefore, where appropriate, the information in these reports was used to describe the geologic conditions in this section. Furthermore, because geologic conditions do not change over the course of only a few years, the setting and conclusions stated in the reports are still considered valid for the purposes of this EIR.

Under CEQA, an EIR is not required to include an analysis of how the existing environmental conditions will affect a project's residents or users unless the project would exacerbate those conditions. Therefore, when discussing impacts from the environment on the project, such as how a fault rupture or soil condition may affect a project, the analysis will first determine if there is a potential for the project to exacerbate the issue. If evidence indicates it would not, then the analysis will conclude by stating such. If the proposed project would potentially exacerbate the issue, then analysis is provided to determine if the exacerbation would or would not be significant. However, it should be noted that as it relates to faults and soil conditions, the project must be built in accordance with the California Building Code (CBC) and the City of San Diego's Municipal Code, which includes requirements to conduct geotechnical evaluations that identify geotechnical hazards and recommend measures that would minimize these hazards.

Table 4.5-1 summarizes the significant impacts and mitigation measures discussed in Section 4.5.4.3, *Project Impacts and Mitigation*.

Table 4.5-1. Summary of Significant Geology and Soils 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-GEO-1: Potential to Exacerbate Conditions That Would Result in Liquefaction	MM-GEO-1: Demonstrate Compliance with Regulations, including CBC and City of San Diego Municipal Code, by Preparing a Geotechnical Investigation Report	Less than significant	Preparation of a geotechnical investigation report will identify potential soil hazard areas and recommendations to minimize risks, thus demonstrating compliance with applicable regulations.
Impact-GEO-2: Potential to Exacerbate Conditions That Would Result in Lateral Spreading or Soil Collapse	MM-GEO-1: Demonstrate Compliance with Regulations, including CBC and City of San Diego Municipal Code, by Preparing a Geotechnical Investigation Report	Less than significant	Preparation of a geotechnical investigation report will identify potential soil hazard areas and recommendations to minimize risks, thus demonstrating compliance with applicable regulations.

4.5.2 Existing Conditions

4.5.2.1 Geology and Subsurface Conditions

Regional Geology

The proposed project is in the Peninsular Ranges Geomorphic Province, which extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin south to the southern tip of Baja California. The province consists of rugged mountains underlain by Jurassic-age metavolcanic and metasedimentary rocks, and Cretaceous-age igneous rock. The portion of the province in San Diego County consists of a dissected coastal plain underlain by Upper Cretaceous-, Tertiary-, and Quaternary-age sediments (Appendix G-2).

Local Geologic Setting

Landside

Information obtained during a review of Appendices G-1 and G-2 indicates that the project site and nearby area are underlain by fill material, bay deposits, and old paralic deposits.

Fill Material

The project site is underlain by fill material placed during previous improvements to the bayfront in the 1920s. The majority of the fill was likely derived from material obtained during dredging of the neighboring areas of the Bay. The upper several layers of fill were likely capped with terrestrial fill imported to the site, which was common during such fill operations. It is estimated that undocumented fill extends to depths of approximately 10 to 35 feet below ground surface within the project area (Appendix G-1) and to depths between 9 and 14 feet below ground surface for the Hilton San Diego Bayfront Hotel (see Appendix G-2). The fill material consists of loose to medium-dense, saturated sand and silty sand. The fill is not considered to be engineered structural fill and is too compressible for structures.

Bay Deposits

Bay Deposits under the project site are estimated to range between 29 and 42 feet below ground surface (Appendix G-1), while Bay Deposits under the Hilton San Diego Bayfront Hotel are about 14 to 23.5 feet below ground surface (Appendix G-2). The contact between the Old Paralic Deposits Formation and the younger Bay Deposits generally increases in depth toward the Bay. Bay Deposits consist of loose to medium-dense, black to dark gray and olive gray, clayey and sandy silt and soft to firm, silty and sandy clay. These deposits are compressible and not considered suitable to support structures.

Old Paralic Deposits

Quaternary-age Old Paralic Deposits (previously called Bay Point Formation) are marine terrace deposits that exist below the fill materials at the project site and the Hilton San Diego Bayfront Hotel, at depths ranging between approximately 40 feet to 45 feet below ground surface (Appendices G-1 and G-2). Old paralic deposits consist of light brown, reddish-brown, light gray to gray and dark olive, saturated, medium-dense to very dense, fine to coarse sand, silty sand, and clayey sand with iron oxide staining and shell fragments; light olive to olive, light brown and reddish-brown, saturated, very stiff to hard, silty and sandy clay with iron oxide staining; and light brown, saturated, medium-dense, sandy silt. These deposits consist of layers of medium-dense to very dense, uncemented sand and stiff to hard clay that is generally considered suitable for the support of structural loads.

Waterside

According to the California Department of Conservation and California Geological Survey's (CGS) *Geologic Map of the San Diego 30'x60' Quadrangle, California*, the nearshore deposits in the San Diego Bay are described as Holocene age, fine-grained, indurated, and cemented undivided marine deposits. Continental and shallow water lagoonal deposits of the Otay Formation were deposited in the nearshore during the Oligocene (CGS 2008). Following the Oligocene, the San Diego coastal margin underwent uplift and extensive erosion and the strata of the San Diego Formation were then deposited. Due to this erosion, the San Diego Formation rests upon Oligocene, Eocene, and Upper Cretaceous beds (across its outcrop from Pacific Beach to the international border with Mexico). The San Diego Formation consists mostly of yellowish-brown and gray, fine- to medium-grained, marine sandstone and reddish-brown, transitional marine and nonmarine pebble and cobble conglomerate. Following the establishment of the San Diego Formation and continuing to present times, the San Diego coastal margin continues a relatively steady uplift. During this time continually evolving

marine abrasion platforms have been carved and uplifted and are manifest in marine terraces and their deposits. The deposits consist of nearshore marine, beach, estuarine, lagoonal, and continental dune facies that were deposited across a marine/nonmarine transition zone and along a coastal strandline.

4.5.2.2 Groundwater

Groundwater was encountered at depths of approximately 5 to 9 feet below ground surface (Appendix G-2). Fluctuations in groundwater level may occur due to variations in surface topography, surface geologic conditions and structure, tidal influences, rainfall, irrigation, groundwater withdrawal or injection, and other factors. 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 (California DWR 2004).

4.5.2.3 Faults and Seismicity

An earthquake occurs when two blocks of the earth suddenly slip past one another. The surface where they slip is called the *fault* or *fault plane*. A fault is defined as a fracture, or a zone of closely associated fractures, along which rocks on one side have been displaced with respect to those on the other side. Most faults are the result of repeated displacement that may have taken place suddenly and/or by slow creep. As required by the Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act), California and local governments have produced geologic studies and maps that identify the location and characteristics of faults and fault zones within the state. Some of these include the CGS Earthquake Fault Zone Maps (2003) and Fault Evaluation Reports (2015), and the City of San Diego Seismic Safety Study, Geologic Hazards and Faults (2008).

Regional

The project site is in an area with known faults and fault zones that have the potential to create seismic impacts at the project site (Appendices G-1 and Appendix G-2; CGS 2003; City of San Diego 2008). The Peninsular Ranges Province is traversed by a northwest-trending group of sub-parallel faults and fault zones. Elsinore, San Jacinto, and San Andreas faults are major active fault systems to the northeast and the Coronado Bank, San Diego Trough, and San Clemente faults are active faults to the west. A prominent fault zone in this area is the active Rose Canyon Fault Zone (RCFZ). Major tectonic activity associated with these and other faults within this regional tectonic framework consists primarily of right-lateral, strike-slip movement.

The RCFZ is a complex series of fault segments that strike generally north–northwest through San Diego. Within San Diego Bay, the RCFZ splays into multiple, subparallel strands. The major faults that compose the southern end of the RCFZ within the San Diego Bay area are the Spanish Bight, Coronado, and Silver Strand faults. Together, these faults define a wide and complex faulted basin occupied by San Diego Bay and a narrow section of the continental shelf west of the Silver Strand. The RCFZ has been mapped as “active” by CGS, and a State of California Earthquake Fault Zone has been established for several areas of downtown San Diego, Coronado, and San Diego Bay.

There have been numerous moderate earthquakes in the San Diego Bay area, including a cluster of events in 1964 and 1985 between magnitude 3 and 4+. The greatest peak acceleration recorded in the downtown area was 34 centimeters/second (0.03 gravity [g]) produced by an offshore magnitude 5.6 earthquake in 1964. It is estimated that earthquakes with a magnitude of 5.0 to 5.9 are expected approximately once every 100 years. Higher magnitude earthquakes may also occur, but with a lower probability of occurrence. Approximate comparisons of earthquake magnitude, intensity, and peak acceleration are provided in Table 4.5-2.

Table 4.5-2. Correlation of Earthquake Intensity and Acceleration

Magnitude (Richter scale)¹	Intensity (MMI) Value²	Acceleration (g)	Perceived Shaking	Potential Damage
< 2.0	I	<0.0017	Not felt	None
2.0–2.9	II–III	0.0017–0.014	Weak	None
3.0–3.9	IV	0.014–0.039	Light	None
4.0–4.9	V	0.039–0.092	Moderate	Very light
5.0–5.9	VI	0.092–0.18	Strong	Light
6.0–6.9	VII	0.18–0.34	Very strong	Moderate
7.0–7.9	VIII	0.34–0.65	Severe	Moderate to heavy
8.0+	IX–X+	0.65–1.24	Violent to Extreme	Heavy to very heavy

Sources: Association of Bay Area Governments 2015; USGS 2015.

Notes:

¹ The magnitude of an earthquake is determined from the logarithm of the amplitude of waves recorded by seismographs. Adjustments are included for the variation in the distance between the various seismographs and the epicenter of the earthquakes.

² The Modified Mercalli Intensity (MMI) scale depicts shaking severity. An earthquake has a single magnitude that indicates the overall size and energy released by the earthquake. However, the amount of shaking experienced at different locations varies based on overall magnitude, how far you are from the fault that ruptured in the earthquake, and whether you are on rock or thick valley deposits that shake longer and harder than rock.

On Site

As shown on Figure 4.5-1, the project site is not underlain by known active or potentially active fault strands or fault zones (Appendix G-1; CGS 2003; City of San Diego 2008). However, active fault strands associated with the RCFZ are located to the northeast and southwest of the project site, both approximately 1,500 feet away (CGS 2003; City of San Diego 2008).

Therefore, due to the project site's general proximity to the RCFZ, earthquakes that may occur within these zones can be potential generators of significant ground motion at landside and waterside features.

4.5.2.4 Liquefaction, Lateral Spreading, Seismically Induced Settlement, and Landslides

Seismically induced soil liquefaction can be described as a significant loss of strength and stiffness due to cyclic pore water pressure generation from seismic shaking or other large cyclic loading. Liquefaction typically occurs when a site is located in a zone with seismic activity, onsite soils are

cohesionless, groundwater is encountered within 50 feet of the surface, and soils' relative densities are less than about 70 percent. If these four criteria are met, a seismic event could result in a rapid pore-water pressure increase from the earthquake-generated ground accelerations. The material is a free-flowing material that does not allow for increased pore-water pressure. Adverse impacts associated with liquefaction include lateral spreading, ground rupture and/or sand boils, and settlement of the liquefiable layers. Lateral spreading occurs when there is liquefiable soil in the immediate vicinity of a free face, such as a slope. Factors controlling lateral displacement include earthquake magnitude, distance from the earthquake epicenter, thickness of liquefiable soil layer, grain size characteristics, fine contents of the soil, and the density of granular deposits, such as sands and gravel. Seismically induced settlement is settlement that may occur whether or not the potential for liquefaction exists.

Potentially liquefiable soils are present in the area with a potential of seismic-induced settlement of approximately 2 to 6 inches (Appendix G-2). Furthermore, the proposed project landside features are within a high liquefaction area as shown on Figure 4.5-1. Therefore, there is the possibility for lateral spreading to occur during a seismic event.

A landslide results from the downgradient movement of earthen material along a slope or hillside. Landslides occur on slopes when soil and base material lose strength, typically from an increase in pore-water pressures and the forces of gravity, and cause the soil and base material to move down-gradient. Landslides can result from a variety or combination of root causes such as steepness of slope, type of material, water content of slope soils, amount and type of vegetation, and major natural hazards such as earthquakes, volcanic eruptions, wildfires, and floods. Steeper slopes and weaker rocks are the most vulnerable to mass wasting events. Landslides can occur as slow but progressive movements of soil over time or from the rapid deterioration of soil on a slope.

The project site and the immediate surroundings are generally flat with minimal changes in topography, making the risk of landslides negligible. In addition, the project site is not in a mapped area of landslide susceptibility (City of San Diego 2008).

4.5.3 Applicable Laws and Regulations

4.5.3.1 Federal

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 assigns the Occupational Safety and Health Administration (OSHA) two regulatory functions: setting standards and conducting inspections to ensure that employers are providing safe and healthful workplaces. OSHA standards may require that employers adopt certain practices, means, methods, or processes reasonably necessary and appropriate to protect workers on the job. Employers must become familiar with the standards applicable to their establishments and eliminate hazards.

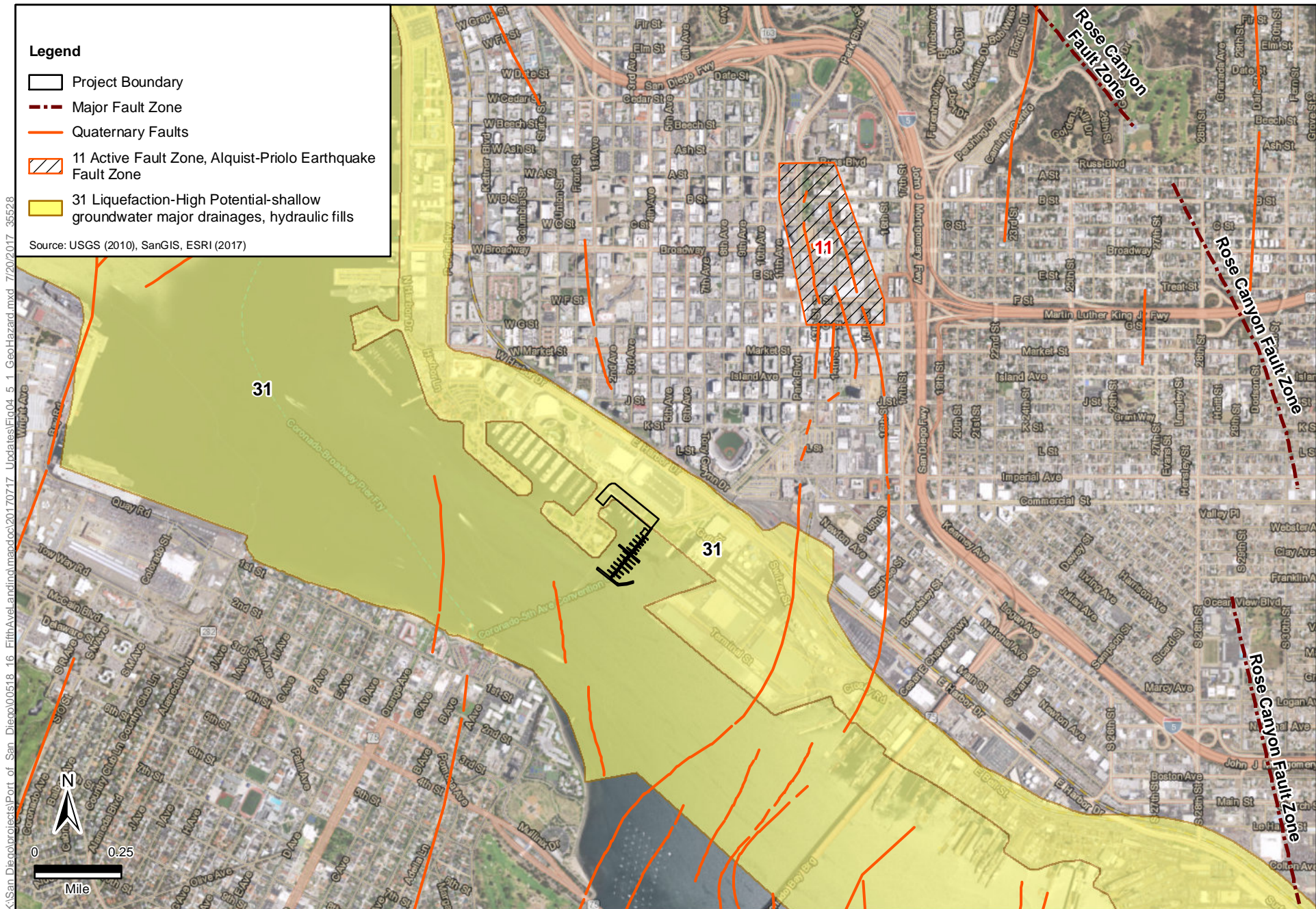


Figure 4.5-1
Geologic Hazards
Fifth Avenue Landing Project

Compliance with standards may include implementing engineering controls to limit exposures to physical hazards and toxic substances, implementing administrative controls, and ensuring that employees have been provided with, have been effectively trained on, and use personal protective equipment when required for safety and health, where the former controls cannot be feasibly implemented. Employees must comply with all rules and regulations that apply to their own actions and conduct. Even in areas where OSHA has not set forth a standard addressing a specific hazard, employers are responsible for complying with the act's "general duty" clause. The general duty clause (Section 5(a)(1)) states that each employer "shall furnish...a place of employment which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."

Regulations defining safe standards have been developed for general industry, construction, maritime, recordkeeping, and agriculture. OSHA standards specific to safety and health regulations pertaining to construction are listed in 29 Code of Federal Regulations (CFR) 1926, Subtitle B. Specifically, subpart C handles general safety and health provisions including safety training and education, first aid and medical attention, fire protection and prevention, and personal protective equipment. Subpart D is specific to occupational health and environmental controls such as radiation, gases/vapors/fumes/dust, lead, hazardous chemicals, and noise exposure. Subpart P handles excavation work and safety. Subparts Q and R handle concrete/masonry and steel structures, respectively. In addition, several more subparts provide additional requirements.

4.5.3.2 State

Alquist-Priolo Earthquake Fault Zoning Act

The primary purpose of the Alquist-Priolo Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The act addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Zones) around the surface traces of active faults and issue locational maps to all affected cities, counties, and state agencies for their use in safe construction. Before a project may be permitted, a geologic investigation is required to demonstrate that proposed buildings would not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally 50 feet) (California Department of Conservation 2013).

California Building Code

Development and building design standards require the proposed project to comply with appropriate seismic design criteria in the International Building Code, adequate drainage facility design, and preconstruction soils and grading studies. Seismic design standards have been established to reduce many of the structural problems occurring because of major earthquakes. In 1998, the International Building Code was revised as follows.

- Upgrade the level of ground motion used in the seismic design of buildings.
- Add site amplification factors based on local soils conditions.
- Improve the way ground motion is applied in detailed design.

The California Code of Regulations, Title 24 (California Building Code), which is based on the International Building Code, applies to all applications for building permits. The CBC (also called the California Building Standards Code) has incorporated the International Building Code, which was first enacted by the International Conference of Building Officials in 1927 and has been updated approximately every 3 years since that time.

The current version of the CBC (2013) became effective on January 1, 2014. Building codes provide minimum standards regulating a number of aspects of construction that are relevant to geology and geologic hazards. These include excavation, grading, and fill placement; foundations; mitigation of soil conditions such as expansive soils; and seismic design standards for various types of structures.

Local agencies must ensure that development in their jurisdictions complies with guidelines contained in the CBC. Cities and counties can, however, adopt building standards beyond those provided in the code.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (PRC 2690–2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act: the State is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards; and cities and counties are required to regulate development within mapped seismic hazard zones.

Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Under PRC 2697, cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard. Each city or county shall submit one copy of each geotechnical report, including mitigation measures, to the State Geologist within 30 days of its approval.

State Water Resources Control Board Construction Storm Water Program

Construction activities that disturb 1 acre or more of land must obtain coverage under the State Water Resources Control Board 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 State Water Resources Control Board. Applicants must also demonstrate conformance with applicable construction best management practices (BMPs) and prepare a construction Storm Water Pollution Prevention Plan 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 proposed project would be required to comply with the Construction General Permit because it would disturb over 1 acre during construction.

4.5.3.3 Local

The proposed project is required to obtain grading and construction permits from the City of San Diego. Therefore, the following City ordinance applies to the proposed project.

City of San Diego Municipal Code

Chapter 14, Article 2, Division 1: Grading Regulations

Earthwork activities, including grading, are regulated by the City of San Diego Municipal Code, Chapter 14, Article 2, Division 1. This Division provides standards for slope stability, protection of property, erosion control, water quality, and landform preservation and to protect the public health, safety, and welfare of persons, property, and the environment. The following sections are related to geology and soils and apply to the proposed project.

Section 142.0130: Development Standards for Grading

All *grading* shall be designed and performed in conformance with applicable City Council policies and the standards established in the Land Development Manual.

Section 142.0131: Geotechnical Report Requirements

All *grading* shall be designed to incorporate the recommendations of any required *geotechnical reports*.

All *geotechnical reports* shall be prepared in accordance with the standards established in the Lands Development Manual and the City of San Diego Technical Guidelines for Geotechnical Reports.

Section 142.0135: Grading Within the *Special Flood Hazard Area*

Grading within the *Special Flood Hazard Area* shall comply with Chapter 14, Article 2, Division 2 (Drainage Regulations) and Chapter 14, Article 3, Division 1 (Environmentally Sensitive Lands Regulations).

Section 142.0146: Erosion, Sedimentation, and Water Pollution Control

All *grading* work shall incorporate erosion and siltation control measures in accordance with Chapter 14, Article 2, Division 4 (Landscape Regulations) and the standards established in the Land Development Manual.

All *development* shall be conducted to prevent erosion and stop sediment and pollutants from leaving the work site. The property owner is responsible to implement and maintain temporary and permanent erosion, sedimentation, and water pollution control measures to the satisfaction of the City Manager, whether or not such measures are a part of approved plans. The property owner shall install, monitor, maintain, and revise these measures, as appropriate, to ensure their effectiveness. Controls shall include measures outlined in Chapter 14, Article 2, Division 2 Storm Water Runoff Control and Drainage Regulations) that address the *development's* potential erosion and sedimentation impacts.

Section 142.0148: Protection of Adjacent Properties and Public Rights-of-Way

During *grading*, the property owner shall take all necessary measures to protect adjacent property and public rights-of-way from damage that may result from the work. The property owner shall provide *fences* or barricades needed to eliminate any hazard to the public in their normal use of the property or *public right-of-way* as follows:

Where a temporary excavation is adjacent to an existing developed public right-of-way or other public property and the slope gradient is 50 percent (2 horizontal feet to 1 vertical foot) or steeper or the height of the *excavation* is more than 6 feet, temporary *fences* or barricades shall be provided adjacent to the *excavation* satisfactory to the City Engineer. The *fences* or barricades shall be constructed and maintained as long as the hazard resulting from the *excavation* exists.

Where a permanent *excavation* is adjacent to an existing developed *public right-of-way* or other public property and the slope gradient is 50 percent (2 horizontal feet to 1 vertical foot) or steeper, the height of the *excavation* is more than 6 feet, and the top of the slope is within 10 feet of the *public right-of-way*, the property owner shall construct a permanent, 4-foot-high *fence* adjacent to the *public right-of-way*, satisfactory to the City Engineer.

The City Engineer may modify the requirements of this section where it is evident that the *grading* work will present no hazard to the adjacent property or *public rights-of-way*.

Chapter 12, Article 9, Division 2: Building Permit Procedures

Section 129.0201: Purpose of Building Permit Procedures

The purpose of these procedures is to establish the process for review of Building Permit applications for compliance with the minimum standards necessary to safeguard life or limb, public health, property, and welfare. The intent of these procedures is to review the proposed design, construction methods, and type and quality of materials used for new construction or for construction involving existing structures.

Section 129.0202: When a Building Permit Is Required

(a) No structure regulated by the Land Development Code shall be erected, constructed, enlarged, altered, repaired, improved, converted, permanently relocated or partially demolished unless a Building Permit has first been obtained from the Building Official, except as exempted in Sections 129.0202(b) and 129.0203.

Section 129.0206: Who May Prepare Plans for Building Permits

If plans or other material submitted are not prepared by an architect or engineer licensed by the State of California, the Building Official may require the applicant to demonstrate that state law does not require the material to be prepared by a licensed architect or engineer. The Building Official may require plans, computations, and specifications to be prepared by an architect or engineer licensed by the State of California, in circumstances where preparation by a licensed professional is not required by state law.

Section 129.0210: Plan Review Procedures

The application, plans, specifications, and other data filed by an applicant for a Building Permit shall be reviewed by the Building Official. The plans may be reviewed by other departments of the City to verify compliance with any other applicable provisions of the Municipal Code.

4.5.4 Project Impact Analysis

4.5.4.1 Methodology

For geology and soils, potential direct and indirect impacts associated with the proposed project were identified based on a review of technical reports prepared for the Hilton San Diego Bayfront Hotel Tower Expansion (Appendix G-2) and the San Diego Convention Center Expansion (Appendix G-1).

4.5.4.2 Thresholds of Significance

As noted in Section 4.5.1, *Overview*, CEQA documents are not required to analyze the environment's potential impact on a project, including impacts on 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 geologic hazards and soil conditions may include grading into a hillside that is prone to land or mudslides. In this case, because the project would directly influence the likelihood of such an action occurring, the conclusion is that the project would exacerbate the existing environmental condition. On the other hand, if the project would build near the hillside, but would not actually cause a modification to it such that the potential to experience a hazardous event is not increased, 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. Therefore, the analysis below applies this same logic, consistent with the California Supreme Court's direction.

The following significance criteria are based on Appendix G of the State CEQA Guidelines and modified to reflect the Supreme Court's recent guidance and provide the basis for determining significance of impacts from geotechnical hazards and soil conditions associated with the implementation of the proposed project.

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

1. Exacerbation of the potential of a: (i) 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 (refer to Division of Mines and Geology Special Publication 42); (ii) strong seismic ground shaking; (iii) seismic-related ground failure, including liquefaction; (iv) landslides.
2. Substantial soil erosion or the loss of topsoil.
3. A geologic unit or soil becoming unstable and exacerbate the potential of onsite or offsite lateral spreading, subsidence, or collapse.
4. Exacerbation of the potential of expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
5. Soils that would be incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater such that the potential for a hazardous condition would be exacerbated.

4.5.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would exacerbate the potential of a: (i) rupture of a known earthquake fault; (ii) strong seismic ground shaking; (iii) seismic-related ground failure, including liquefaction; or (iv) landslides.

Impact Discussion

As mentioned in Section 4.5.2.3, *Faults and Seismicity*, the project site is not underlain by known active or potentially active faults or fault zones; however, the RCFZ is within 1,500 feet of the project site (a small portion of the RCFZ is just south of the offshore proposed marina expansion portion of the proposed project). Furthermore, the proposed project site is not within an active Alquist-Priolo Earthquake Fault Zone. Because there are no faults within the project site and ground disturbance activities associated with the proposed project, including building foundations, would be too shallow to influence seismic phenomena, construction and operation of the proposed project would not exacerbate the existing conditions that could cause an earthquake fault to rupture.

The project site is within an area that is susceptible to seismic ground shaking and seismic-related ground failure, including liquefaction. As such, the proposed project could be subject to future seismic shaking and strong ground motion resulting from seismic activity. However, the proposed project would not exacerbate the potential for strong seismic ground shaking to occur or the intensity of the ground shaking. Southern California is a seismically active region and all structures in the region will likely experience strong ground shaking at some point. Ground disturbance activities associated with the proposed project, including building foundations, would be too shallow to influence seismic phenomena (this includes foundations for offshore features, as well).

Additionally, the landside portion of the proposed project is within an area that is classified as having a high liquefaction potential (Appendices G-1 and G-2, respectively). Liquefaction typically occurs when certain geologic criteria are met, such as a seismically active area, cohesionless soils, shallow groundwater, and soils with relative densities less than 70%.

As mentioned under Section 4.5.2.4, *Liquefaction, Lateral Spreading, Seismically Induced Settlement, and Landslides*, the proposed project footprint and its immediate surroundings are flat. Furthermore, the proposed project site is not in an area of landslide susceptibility. Therefore, potential impacts related to landslides would not occur.

The proposed project would be required to follow OSHA regulations related to worker safety, pursuant to the Occupational Safety and Health Act of 1970 contained in Title 29 CFR. Furthermore, as with any new development within the state, building design and construction for the proposed project would be required to comply with the current seismic design and soil hazard provisions of the CBC. The 2013 CBC incorporates the latest seismic design standards for structural loads and materials as well as provisions from the National Earthquake Hazards Reduction Program to mitigate losses from an earthquake and provide for the latest in earthquake safety. The CBC also requires that geotechnical reports be prepared to identify geological hazards, including liquefaction, and provide recommendations for foundation type and design criteria. Additionally, construction of the proposed project would be required to adhere to the seismic safety requirements and geological

hazard requirements contained in the San Diego Municipal Code, which incorporates the CBC, with additional City-specific requirements.

Thus, construction and operation of the proposed project would not have the potential to exacerbate rupture of an active fault or conditions that would promote strong seismic ground shaking or landslides. However, the proposed project would include excavation of soil and construction of structures within this area of high liquefaction. These activities could loosen soil compaction and otherwise disturb the existing geologic conditions, thus exacerbating the potential for liquefaction to occur, if compliance with regulations does not occur (**Impact-GEO-1**).

Level of Significance Prior to Mitigation

Implementation of the proposed project would not exacerbate the potential of a rupture of a known earthquake fault, strong seismic ground shaking, or landslides. However, the proposed project would exacerbate the potential for liquefaction. Potentially significant impact(s) include:

Impact-GEO-1: Potential to Exacerbate Conditions That Would Result in Liquefaction.

There is the potential that construction activities could loosen soil compaction and change the existing geologic conditions in a way that would increase the potential for liquefaction to occur.

Mitigation Measures

For **Impact-GEO-1**:

MM-GEO-1: Demonstrate Compliance with Regulations, including CBC and City of San Diego Municipal Code, by Preparing a Geotechnical Investigation Report. To reduce potential impacts related to soil hazards, the project proponent shall conduct a geotechnical investigation for the project prior to the completion of the final design of the project. The geotechnical investigation shall be submitted to the District and the City of San Diego and be approved by the City of San Diego. The project proponent shall be required to implement the recommendations identified in the geotechnical report. The geotechnical report shall be prepared in compliance with CBC regulations and include the following:

- Site-specific geotechnical and fault evaluation.
- Suitability determination for construction within soil hazard areas.
- Recommendations for design and construction practices based on the suitability determination, such as:
 - Temporary shoring
 - Supporting structures on pile foundations
 - Measures to protect structures against corrosion
 - Ground improvement techniques, such as deep soil mixing and compaction grouting

Level of Significance after Mitigation

With implementation of **MM-GEO-1**, potential impacts would be less than significant because compliance with regulations would be demonstrated in the geotechnical investigation that would include recommendations for design and construction practices.

Threshold 2: Implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil.

Impact Discussion

Although the proposed project site is primarily paved and developed, soil disturbance activities such as grading and excavation could result in soil erosion. Ground-disturbing activities associated with construction of the proposed project would expose soils to the erosional forces of wind and water during storm events, potentially resulting in erosion and sedimentation on and off the project site and into the Bay.

As further detailed in Section 4.8, *Hydrology and Water Quality*, the proposed project would comply with the Statewide Construction General Permit that requires implementation of a Storm Water Pollution Prevention Plan to address erosion and sedimentation at the project site during construction activities. Temporary BMPs, such as silt fences, straw waddles, sediment traps, gravel sandbag barriers, or other effective BMPs, would be implemented to control runoff and erosion during construction activities. Implementation of erosion and sediment control BMPs would prevent substantial soil erosion and sedimentation from exposed soils. Post-construction measures, such as surface drainage design provisions that would recapture and filter runoff prior to irrigation reuse, along with proper maintenance practices would reduce potential soil erosion during operations of the proposed project. Furthermore, the proposed project would be subject to the San Diego Municipal Code Section 142.0146: *Erosion, Sedimentation, and Water Pollution Control* (described in detail in Section 4.5.3.3), which states that all development should implement and maintain both temporary and permanent erosion, sedimentation, and water pollution control measures. Therefore, potential impacts related to soil erosion or loss of topsoil would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 3: The proposed project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite lateral spreading, subsidence, or collapse.

Impact Discussion

Bay deposit and fill layers underlying the project site are considered unstable due to their liquefaction potential. As liquefaction potential exists in the project site, there is also potential for lateral spreading (liquefaction is discussed in detail under Threshold 1). Lateral spreading is a secondary seismic effect of liquefaction. Lateral spreading occurs when there is liquefiable soil in the

immediate vicinity of a free face, such as a slope. Factors controlling lateral displacement include earthquake magnitude, distance from the earthquake epicenter, thickness of liquefiable soil layer, grain size characteristics, fine contents of the soil, and density of granular deposits, such as sands and gravel. As discussed under Threshold 1, implementation of the proposed project has the potential to exacerbate the potential for liquefaction if compliance with regulations does not occur. Consequently, the proposed project could also exacerbate conditions that would promote lateral spreading.

Ground subsidence results from fluid (water or petroleum) extraction from underlying formations, which causes the collapse of pore spaces previously occupied by the removed fluid. The collapse of these pore spaces compacts these underlying formations, leading to a gradual drop in ground surface elevation. Ground subsidence is most often found in areas where large volumetric withdrawals of fluids from underground reservoirs has occurred or is ongoing. Ground shaking from tectonic activity can exacerbate the vertical sinking of land in an area over the withdrawal site. Underlying geologic formations within San Diego County have a low potential of subsidence and there are no historical records of subsidence events in San Diego County (County of San Diego 2010; USGS 2017). While the proposed project would likely require dewatering during construction as a consequence of the proposed pile installation and soil engineering, dewatering would be temporary and would not result in the substantial drawdown of groundwater (see Section 4.8, *Hydrology and Water Quality*). As such, temporary dewatering would not permanently affect groundwater levels and the proposed project would not exacerbate conditions related to subsidence.

Collapsible soils are subject to changes in volume and settlement due to the introduction of water, which can break down soil grain bonds in dry, low-density, unconsolidated soils, resulting in collapse of the soil. Other mechanisms for soil collapse include the sudden closure of voids in a soil, whereby the sudden decrease in volume results in loss of the soil's internal structure, causing the soil to collapse. The fill material and Bay Deposits that underlie the project site are compressible and not considered suitable to support structures (Appendix G-1). However, the proposed project would not exacerbate those existing conditions because it would not introduce large amounts of water to the soil. Moreover, the proposed project would be required to be constructed in compliance with mandatory CBC regulations related to unstable soils, which include requirements for specific materials to be used for fill, compaction specifications, dewatering requirements, removal of unsuitable material prior to placing fill, and other soil enhancements for surficial stability. However, the proposed project has the potential to exacerbate conditions that would enhance collapsible soils if compliance with regulations does not occur.

Thus, construction and operation of the proposed project would not have the potential to exacerbate conditions that would potentially result in on- or offsite subsidence. However, construction of the proposed project would include excavation of soil and construction of structures in an area with unstable soils. These activities could loosen soil compaction and otherwise disturb the existing geologic conditions, thus exacerbating the potential for lateral spreading or soil collapse to occur, which would be a significant impact if the proposed project does not comply with regulations, such as the CBC and City of San Diego's Municipal Code (**Impact-GEO-2**).

Level of Significance Prior to Mitigation

The proposed project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite lateral spreading, subsidence, or collapse. Potentially significant impact(s) include:

Impact-GEO-2: Potential to Exacerbate Conditions That Would Result in Lateral Spreading or Soil Collapse. There is the potential that construction activities could loosen soil compaction and change the existing geologic conditions in a way that would increase the potential for lateral spreading or soil collapse to occur.

Mitigation Measures

For **Impact-GEO-2**:

Implement **MM-GEO-1**.

Level of Significance after Mitigation

With implementation of **MM-GEO-1** and compliance with regulations such as the CBC and City of San Diego's Municipal Code, potential impacts would be less than significant because compliance with regulations such as CBC and City of San Diego's Municipal Code would be demonstrated in the geotechnical investigation that would include recommendations for design and construction practices. Impacts would be less than significant with mitigation incorporated.

Threshold 4: The proposed project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Impact Discussion

Expansive soils are fine-grained soils (generally high-plasticity clays) that can undergo a significant increase in volume with an increase in water content as well as a significant decrease in volume with a decrease in water content. Changes in the water content of highly expansive soils can result in severe distress for structures constructed on or against the soils. Table 18-1-B of the Uniform Building Code illustrates a classification for expansive soils utilizing an expansion index and the associated potential for expansion. For example, an expansion index of 0–20 has a very low potential for expansion, while an expansion index of 91–130 has a high potential for expansion.

As discussed, soils in the project area consist of fill material to approximately 9 to 14 feet below ground surface. This fill material consists of loose to medium-dense, saturated sand and silty sand (Appendix G-1) with an expansion index within the 0–20 range (Appendix G-2). Therefore, the expansion potential is very low, according to the Table 18-1-B classification. Furthermore, expansive soils are considered to be a minor threat to limited parts of the County (County of San Diego 2010).

None of the proposed project features would cause any of the geologic conditions associated with expansive soils, as the project would not import expansive soils into the project site or affect groundwater depth. Therefore, construction and operation of the proposed project would not have the potential to exacerbate conditions that would result in expansive soil impacts. Impacts would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not exacerbate the potential for impacts associated with expansive soils. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 5: Implementation of the proposed project would not involve soils that would be incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater.

Impact Discussion

No septic tanks or alternative wastewater disposal systems are proposed as part of the proposed project. As such, there would be no potential for the proposed project to result in impacts associated with septic tanks or alternative wastewater disposal systems.

Level of Significance Prior to Mitigation

The proposed project does not feature the use of septic tanks or alternative wastewater disposal systems. No impact would occur.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

No impact would occur.

Section 4.6

Greenhouse Gas Emissions and Climate Change

4.6.1 Overview

This section describes the existing conditions and applicable laws and regulations for greenhouse gas (GHG) emissions and climate change and analyzes the proposed project's (1) consistency with the District's Climate Action Plan (CAP) reduction targets and with regulatory programs outlined in the Scoping Plan and adopted by the California Air Resources Board (ARB) or other California agencies to reduce GHG emissions in 2020; its (2) consistency with the post-2020 reduction targets set forth through California Executive Order (EO) S-03-05 and Senate Bill (SB) 32 and with plans, policies, and regulations promulgated to reduce GHG emissions post-2020; and whether the project would (3) 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.

Table 4.6-1 summarizes the significant impacts and mitigation measures discussed in this section.

Table 4.6-1. Summary of Significant 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 Climate Action Plan and Only Partial Consistency with Applicable GHG Reduction Plans, Policies, and Regulatory Programs through 2021	MM-GHG-1: Implement Diesel-Reduction Measures During Project Operations MM-GHG-2: Comply with San Diego Unified Port District Climate Action Plan Measures MM-GHG-3: Implement Sustainability Features during Project Operations MM-GHG-4: Implement a Renewable Energy Project on Site, on Tidelands, or Within Offsite Tidelands Adjacent to Community or Member City, or Purchase the Equivalent Greenhouse Gas Offsets from a California Air Resources Board Approved Registry or a Locally Approved Equivalent Program	Less than Significant	With mitigation, project-related GHG emissions would achieve the CAP's efficiency targets for lodging/landside projects (12.91 MTCO _{2e} /room) and recreational boating (42%), and the project would comply with plans, policies, and regulatory programs outlined in the Scoping Plan and adopted by ARB.

Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-GHG-2: GHG Emissions in Excess of Post-2020 Targets for Landside Uses and Recreational Boating	MM-GHG-1 through MM-GHG-4 MM-GHG-5: Implement a Renewable Energy Project or Purchase the Equivalent Greenhouse Gas Offsets from a California Air Resources Board Approved Registry or a Locally Approved Equivalent Program	Significant and Unavoidable	With mitigation, project-related GHG emissions would achieve the CAP's efficiency targets for lodging/landside projects for 2030 (6.3 MTCO ₂ e/ room) and 2050 (1.4 MTCO ₂ e/room) and the post-2020 reduction targets for recreational boating (66% for 2030, 90% for 2050), but because there are no known post-2020 reduction targets and plans to meet the statewide targets, specific reduction targets remain unknown.

4.6.2 Existing Conditions

This section provides a discussion of the existing understanding of global climate change and its effects. This section also provides an explanation of GHG emissions, as well as energy resources as they relate to the project area.

4.6.2.1 Global Climate Change

The phenomenon 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 (CO₂), methane (CH₄), nitrous oxide (N₂O), perfluorinated carbons (PFCs), sulfur hexafluoride (SF₆), 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.

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, thus enhancing the greenhouse effect and amplifying the warming of the Earth (Center for Climate and Energy Solutions 2011).

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 changes to the Earth system that are 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) (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) (2014) are discussed in this section in order of abundance in the atmosphere, and 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 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. Note that HFCs, SF₆, and PFCs are not discussed because those gases are primarily generated by industrial and manufacturing processes, which are not anticipated as part of the project. Consequently, the primary GHGs of concern associated with the project are CO₂, CH₄, and N₂O.

- **Carbon Dioxide (CO₂)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). CO₂ is also removed from the atmosphere (or “sequestered”) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH₄)** is emitted during the production and transport of coal, natural gas, and oil. CH₄ also results from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- **Nitrous Oxide (N₂O)** is emitted during agricultural and industrial activities, as well as during 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 to compare GHG emissions is the global warming potential (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 (CO₂e), which compares the gas in question to that of the same mass of CO₂ (which has a GWP of 1 by definition). The GWP values used in this report are based on the IPCC Fourth Assessment Report (AR4) and United Nations Framework Convention on Climate Change reporting guidelines and are defined in Table 4.6-2 (IPCC 2007). The AR4 GWP values are used in ARB’s 2015 California GHG inventory and ARB’s Draft 2017 Scoping Plan Update (ARB 2017a; ARB 2017b).

Table 4.6-2 lists the GWP of CO₂, CH₄, and N₂O, their lifetimes, and abundances in the atmosphere.

Table 4.6-2. Lifetimes, GWPs, and Abundances of Significant GHGs

Gas	GWP (100 years)	Lifetime (years)¹	Atmospheric Abundance
CO ₂	1	50–200	400 ppm
CH ₄	25	9–15	1,834 ppb
N ₂ O	298	121	328 ppb

Sources: Myhre et al. 2013; Blasing 2016; IPCC 2007.
¹ Defined as the half-life of the gas.
 ppm = parts per million; ppb = parts per billion.

4.6.2.3 Greenhouse Gas Inventories

A GHG inventory is a quantification of all GHG emissions and sinks¹ 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	CO₂e (metric tons)
2010 IPCC Global GHG Emissions Inventory	52,000,000,000
2015 EPA National GHG Emissions Inventory	6,857,000,000
2015 ARB State GHG Emissions Inventory	440,400,000
2012 County of San Diego GHG Emissions Inventory	34,670,000
2010 City of San Diego GHG Emissions Inventory	13,091,591
2006 Port of San Diego GHG Emissions Inventory ¹	826,429

Sources: IPCC 2014; EPA 2017; ARB 2017a; Energy Policy Initiatives Center 2015; City of San Diego 2015; District 2013.
¹ The Port of San Diego's GHG emissions inventory is based on the 2013 Climate Action Plan, rather than the District's 2012 Maritime Air Emissions Inventory, because the Climate Action Plan provides a more comprehensive inventory of the Port's activities and GHG emissions profile.

Local Emissions at the Project Site

Activity at the project site generates GHG emissions. Specifically, GHG emissions resulting from activity associated with existing marina operations are broken into landside and waterside components. Landside sources are those sources that occur on land, and include vehicle trips; building electricity, natural gas, and water consumption; and waste generation. Waterside sources are those sources that occur in the water, and include the existing ferry service and recreational

¹A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

boating associated with the existing 12 slips. A description of each of these sources and associated emissions modeling are provided in Section 4.6.4.1 below. Emissions associated with existing activity at the annual time scale (metric tons of CO₂e per year) are presented in Table 4.6-4.

Table 4.6-4. Estimate of Existing GHG Emissions at the Project Site (metric tons per year)

Emission Source	CO₂e
<i>Existing Landside</i>	
Motor Vehicles	50
Electricity	346
Natural Gas	129
Water	6
Wastewater	<1
Solid Waste	93
<i>Subtotal</i>	<i>624</i>
<i>Existing Waterside</i>	
Ferry Service	539
Recreational Boating	540
<i>Subtotal</i>	<i>1,079</i>
Total Existing Annual	1,703
Note: Totals may not add exactly due to rounding.	
Source: Appendix D.	

4.6.2.4 Impacts of Global Climate Change

Climate change is a complex phenomenon that has the potential to alter local climatic patterns and meteorology. Although modeling indicates that climate change will result in sea-level rise (SLR) (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 any 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 ARB, 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 increase in the severity of winter storms, affecting peak stream flows and flooding; changes in growing season 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 Foundation's *A Regional Wake-Up Call* (2013), which summarizes the CEC's *Climate Change-Related Impacts in the San Diego Region by 2050* paper (CEC 2009), provides a summary of potential climate change impacts in the region (Ocean Protection Council 2013), which include the following.

- **Increased temperatures:** The San Diego region will see hotter and drier days and more frequent, prolonged heat waves. Average annual temperatures are expected to increase 1.5–4.5°F (CEC 2009; The San Diego Foundation 2013).
- **Reduction in air quality:** Hotter and drier days create more air pollution by raising ozone levels, and this can exacerbate asthma and other respiratory and cardiovascular diseases (CEC 2009).
- **Introduction of new public health issues:** Warmer temperatures year-round could lead to growing mosquito populations, increasing the regional occurrence of West Nile virus and potentially introducing tropical diseases such as malaria and dengue fever (CEC 2009).
- **Reductions in fresh water:** Water and energy demand will increase, while extended and more frequent droughts will cause traditional sources of fresh water supplies to diminish. Reduced local and regional precipitation could shrink water supplies by 20% or more, while water demand is expected to increase 37%. There could be an 18% water shortage by 2050 (CEC 2009; The San Diego Foundation 2013).
- **Increased rate of wildfires:** Drier weather may increase the frequency and size of wildfires, with an estimated 20% increase in days with ideal fire conditions (CEC 2009; The San Diego Foundation 2013).
- **Rising sea levels:** Projected SLR, coastal erosion, and increasing storm surges may cause fragile sea cliffs to collapse, shrink beaches, and destroy coastal property and ecosystems. Sea levels are expected to rise 12–16 inches by 2020 (CEC 2009; The San Diego Foundation 2013), 24 inches by 2050, and 65.7 inches by 2100, relative to 2000 conditions (Ocean Protection Council 2013; CO-CAT 2013).

Given the port's location along the waterfront, SLR is the primary concern as an effect of climate change and is discussed in more detail below.

Sea Level Rise

Projected SLR as an effect of climate change is expected to increase the geographic area that experience coastal flooding along San Diego Bay. Coastal and low-lying areas, such as the project site, are particularly vulnerable to future SLR. More specifically, SLR is particularly a concern when considered in combination with future storm events and coastal flooding. A scenario with 100-year flood flows that coincide with high tides, taking into account SLR 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 SLR 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, the San Diego Bay may

become more susceptible to regularly occurring inundation during daily high tide events at certain locations and assets. The most vulnerable sectors in the community include stormwater management, wastewater collection, shoreline parks and public access, transportation facilities, commercial buildings, and ecosystems (ICLEI 2012).

The Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT) developed the State of California Sea-Level Rise Guidance Document for State agencies to incorporate SLR into planning and decision-making for projects in California. The document was developed in response to Governor Schwarzenegger's EO S-13-08, issued on November 14, 2008, which directed State agencies to plan for SLR and coastal impacts. That executive order also requested the National Research Council (NRC) to issue a report on SLR to advise California on planning efforts. The final report from NRC, *Sea-Level Rise for the Coasts of California, Oregon, and Washington*, was released in June 2012. The *State of California Sea-Level Rise Guidance Document* (CO-CAT 2013) was last updated in March 2013 adopting the scientific findings of the 2012 NRC report.

In the CO-CAT SLR guidance document (CO-CAT 2013), three SLR projections based on time periods (2030, 2050, and 2100) were selected for south of Cape Mendocino using year 2000 as the baseline. These projections are consistent with the projections adopted by the California Coastal Commission (CCC) in its August 2015 Sea Level Rise Policy Guidance. Table 4.6-5 provides a summary of the SLR projections relevant to the project area during the life of the project.

Table 4.6-5. Sea Level Rise Elevation and Projections (feet)

Year	Existing Tidal Datum ¹		Sea Level Rise Projection ²			Bulkhead Elevation Relative to Projection ³ – Permanent SLR			Bulkhead Elevation Relative to Projection ⁴ – plus Storm Surge		
	Lowest Bulkhead Elevation above MSL	Mean Higher High Water Elevation above MSL	Lower End	Mid	Upper End	Lower End	Mid	Upper End	Lower End	Mid	Upper End
2030	7.00	2.76	0.13	0.48	0.98	4.11	3.76	3.26	1.71	1.36	0.86
2050	7.00	2.76	0.39	0.93	2.00	3.85	3.31	2.24	1.45	0.91	-0.16
2082	7.00	2.76	1.02	2.29	4.22	3.22	1.95	0.02	0.82	-0.45	-2.38

MSL = mean sea level

¹ Mean Higher High Water Elevation above MSL calculated based on the difference between mean higher high water (5.64 feet) and MSL (2.89 feet). Obtained from: <https://www.portofsandiego.org/maritime/check-port-and-harbor-conditions/424-tides-and-currents.html>.

² Based on projections for south of Cape Mendocino. Obtained from: http://www.opc.ca.gov/webmaster/ftp/pdf/docs/2013_SLR_Guidance_Update_FINAL1.pdf.

³ Based on the difference between bulkhead elevation, mean high water elevation above MSL, and SLR projections. For example, the lower end elevation for 2030 is calculated as follows: $7.00 - 2.76 - 0.13 = 4.11$ feet.

⁴ Based on the difference between permanent SLR above mean higher high water and 100-year (1% return probability) surge events. For example, the lower end elevation for 2030 is calculated as follows: $4.11 - 2.40 = 1.71$ feet. Surge event obtained from: <http://tidesandcurrents.noaa.gov/est/curves.shtml?stnid=9410170>.

4.6.3 Applicable Laws and Regulations

This section summarizes federal, state, and local regulations related to GHG emissions, climate change, and energy resources that are applicable to the proposed project.

4.6.3.1 Federal

Climate change is widely recognized as an imminent threat to the global climate, economy, and population. The U.S. Environmental Protection Agency (EPA) has acknowledged potential threats imposed by climate change in a Cause or Contribute Finding, which found that the GHG emissions contribute to pollution that threatens public health and welfare and was a necessary finding prior to adopting new vehicle emissions standards that reduce GHG emissions. Federal climate change regulation under the federal Clean Air Act (CAA) is also currently under development for both existing and new sources. Despite the actions discussed below, there is still no comprehensive, overarching federal law specifically related to the reduction of GHG emissions.

U.S. Environmental Protection Agency Mandatory Reporting Rule for GHGs (2009)

On September 22, 2009, EPA released its final Greenhouse Gas Reporting Rule (Reporting Rule). The Reporting Rule is a response to the fiscal year 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-161), which required EPA to develop “mandatory reporting of greenhouse gases above appropriate thresholds in all sectors of the economy.” The Reporting Rule would apply to most entities that emit 25,000 metric tons of CO₂e or more per year. Starting in 2010, facility owners are required to submit an annual GHG emissions report with detailed calculations of facility GHG emissions. The Reporting Rule also would mandate recordkeeping and administrative requirements in order for EPA to verify annual GHG emissions reports.

Update to Corporate Average Fuel Economy Standards (2009)

The Corporate Average Fuel Economy (CAFE) standards incorporate stricter fuel economy standards promulgated by the State of California into one uniform standard. Additionally, automakers are required to cut GHG emissions in new vehicles by roughly 25% by 2016.

EPA, the National Highway Traffic Safety Administration (NHTSA), and ARB issued joint Final Rules for CAFE standards and GHG emissions regulations for 2017 to 2025 model year passenger vehicles, which require an industry-wide average of 54.5 miles per gallon (mpg) in 2025.

U.S. Environmental Protection Agency Endangerment Finding and Cause or Contribute Finding (2009)

On December 7, 2009, EPA signed the Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the CAA. Under the Endangerment Finding, EPA finds that the current and projected concentrations of the six key well-mixed GHGs—CO₂, CH₄, N₂O, PFCs, SF₆, and HFCs—in the atmosphere threaten the public health and welfare of current and future generations. Under the Cause or Contribute Finding, EPA finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG

pollution that threatens public health and welfare. However, unlike some criteria pollutants and TACs, GHG emissions do not directly affect human health. Rather, elevated GHG concentrations in excess of natural levels induce large-scale climate shifts, which can expose individuals to increased public health risks. For example, increases in ambient temperature can lead to heat-related illnesses and death, whereas changes in disease vectors may lead to increased risk of infectious diseases. Climate change and air pollution are also closely coupled. Ozone and particulate pollution, both of which can negatively affect human health, are strongly influenced by weather and can be concentrated near Earth's surface during extreme heat events.

These findings do not themselves impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing EPA's proposed new CAFE standards for light-duty vehicles, which EPA proposed in a joint proposal including the Department of Transportation's proposed CAFE standards.

4.6.3.2 State

California has adopted statewide legislation addressing various aspects of climate change, GHG mitigation, and energy efficiency. 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. Summaries of key policies, EOs, regulations, and legislation at the State level that are relevant to the project are provided below in chronological order.

Assembly Bill 1493—Pavley Rules (2002, amendments 2009)/Advanced Clean Cars (2011)

Known as Pavley I, Assembly Bill (AB) 1493 provided the nation's first GHG standards for automobiles. AB 1493 required ARB 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* [ACC] measure) was adopted for vehicle model years 2017–2025 in 2012. Together, the two standards are expected to increase average fuel economy to roughly 54.5 mpg in 2025.

Senate Bills 1078/107/X 1-2—Renewables Portfolio Standard and Renewable Energy Resources Act (2002, 2006, 2011)

SBs 1078 and 107, California's Renewables Portfolio Standard (RPS), 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 2015, San Diego Gas and Electric's (SDG&E) eligible renewable procurement was 35%. As noted below, SB 350 increased the RPS to 50% for 2030.

Senate Bill 350 (2015)

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) an RPS of 50% and (2) a doubling of efficiency for existing buildings.

Executive Order S-03-05 (2005)

EO S-03-05 is designed to reduce California's GHG emissions to (1) 2000 levels by 2010, (2) 1990 levels by 2020, and (3) 80% below 1990 levels by 2050.

Assembly Bill 32—California Global Warming Solutions Act (2006)

AB 32 codified the State's GHG emissions target by requiring California's global warming emissions to be reduced to 1990 levels by 2020. Since being adopted, ARB, CEC, the California Public Utilities Commission, and the California Building Standards Commission have been developing regulations that will help the State meet the goals of AB 32 and EO S-03-05. The scoping plan for AB 32 identifies specific measures to reduce GHG emissions to 1990 levels by 2020 and requires ARB and other State agencies to develop and enforce regulations and other initiatives to reduce GHG emissions. The AB 32 Scoping Plan, first 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) (ARB 2008).

ARB re-evaluated its emissions forecast in light of the economic downturn and updated the projected 2020 emissions to 545 million metric tons of carbon dioxide equivalent (MTCO_{2e}). Two reduction measures (Pavley I and RPS [12–20%]) that were not previously included in the 2008 scoping plan baseline were incorporated into the updated baseline, further reducing the 2020 statewide emissions projection to 507 million MTCO_{2e}. The updated forecast of 507 million MTCO_{2e} is referred to as the AB 32 2020 baseline. An estimated reduction of 80 million MTCO_{2e} is necessary to lower statewide emissions to the AB 32 target of 427 million MTCO_{2e} by 2020 (ARB 2014a).

ARB approved the *First Update to the Scoping Plan* on May 22, 2014 (ARB 2014a). The first update includes both a 2020 element and a post-2020 element. The 2020 element focuses on the state, regional, and local initiatives that are being implemented now to help the State meet the 2020 goal. ARB is currently working on a second update to the Scoping Plan to reflect the 2030 target established in EO B-30-15, noting that "California has already made great progress in driving the development of clean technologies thanks to programs developed under AB 32 and other important Legislation; the 2030 target will ensure that success continues beyond 2020" (ARB 2015).

Senate Bill 32, California Global Warming Solutions Act of 2006: Emissions Limit, and Assembly Bill 197, State Air Resources Board, Greenhouse Gases, Regulations (2016)

SB 32 (Pavley) bill requires ARB to ensure that statewide GHG emissions are reduced to at least 40% below the 1990 level by 2030, consistent with the target set forth in EO B-30-15. The bill specifies that SB 32 shall become operative only if AB 197 (Garcia) is enacted and becomes effective on or before January 1, 2017. AB 197 creates requirements to form the Joint Legislative Committee on Climate Change Policies; requires ARB to prioritize direct emission reductions from stationary sources, mobile sources, and other sources and consider social costs when adopting regulations to reduce GHG emissions beyond the 2020 statewide limit; requires ARB to prepare reports on sources

of GHGs, criteria air pollutants, and toxic air contaminants; establishes 6-year terms for voting members of ARB; and adds two legislators as non-voting members of ARB. Both bills were signed by Governor Brown in September 2016.

ARB recently released its Draft 2017 Scoping Plan Update, which 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 Draft 2017 Scoping Plan Update proposed meeting the 2030 goal by accelerating the focus on zero and near-zero technologies for moving freight, continued investment in renewables, greater use of low-carbon fuels including electricity and hydrogen, stronger efforts to reduce emissions of short-lived climate pollutants (CH₄, black carbon, and fluorinated gases), further 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 also recommends that local governments aim to achieve community-wide efficiency of 6 MTCO_{2e} per capita by 2030 and 2 MTCO_{2e} per capita by 2050 to be used in local climate action planning. These efficiency targets would replace the “15% from 2008 levels by 2020” approach recommended in the initial Scoping Plan, which would allow for local governments to grow in a sustainable manner (ARB 2017b). The Draft 2017 Scoping Plan Update is currently out for public review and ARB will hold various public meetings as part of the process.

Assembly Bill 691 – Proactively Planning for Sea Level Rise Impacts (2013)

AB 691 requires that the District prepare and submit to the State Lands Commission, no later than July 1, 2019, an assessment of how the District proposes to address SLR on Tidelands. The assessment must include the following:

- An assessment of the impact of SLR on granted public trust lands as described by certain documents.
- Maps showing the areas that may be affected by SLR in the years 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 SLR on District public trust lands. The estimate shall consider, but is not limited to, the potential cost of 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 the trust lands. The description shall include, but is not limited to, how wetlands restoration and habitat preservation would mitigate impacts of SLR.

Assembly Bill 1383 (2016), Short-Lived Climate Pollutants: Methane Emissions: Dairy and Livestock: Organic Waste: Landfills

AB 1383 requires ARB to approve and implement a plan to reduce methane by 40%, fluorinated gases (F-gases) by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030. AB 1383 establishes specific targets for reducing organic waste in landfills (50% by 2020 and 75% by 2025 compared to 2014). The legislation also adopted regulations to reduce methane emissions from livestock manure management operations and dairy management operations that would take effect in 2024 (ARB 2016).

Executive Order S-01-07—Low Carbon Fuel Standard (2007)

EO S-01-07, the Low Carbon Fuel Standard (LCFS), mandates (1) that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020, with a reduction in the carbon content of fuel by a quarter of a percent starting in 2011, and (2) that a low carbon fuel standard for transportation fuels be established in California. The EO initiates a research and regulatory process at ARB. The LCFS regulation does not apply to transportation fuel used in military tactical vehicles and tactical support equipment, locomotives, ocean-going vessels, and aircraft, but does apply to recreational and commercial harbor craft. Note that 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). As a result, LCFS-related reductions are not included in this analysis of combustion-related emissions of CO₂.

Senate Bill 375—Sustainable Communities Strategy (2008)

SB 375 provides for a new planning process that coordinates land use planning, regional transportation plans, and funding priorities in order to help California meet the GHG reduction goals established in AB 32. SB 375 requires regional transportation plans (RTPs), developed by metropolitan planning organizations, 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. SB 375 also includes provisions for streamlined CEQA review for some infill projects such as transit-oriented development.

The final reduction targets from ARB require the San Diego Association of Governments (SANDAG) to identify strategies to reduce per capita GHG emissions from passenger vehicles by approximately 7% by 2020 and 13% by 2035 over base year 2005. SANDAG's 2050 RTP and SCS, which detail steps the region will take to reduce GHG emissions to State-mandated levels, were originally adopted by SANDAG on October 28, 2011 (SANDAG 2011). However, due to a legal challenge to the CEQA document for the RTP/SCS, the RTP/SCS was most recently revised and adopted by SANDAG on October 9, 2015 (SANDAG 2015).

California Energy Efficiency Standards for Non-Residential Buildings—Title 24 (2008)

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 beginning 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 the 2008 standards for commercial construction. Part 11 also established voluntary standards in the 2008 edition of the code 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 (CEC 2012). The next set of energy efficiency standards (the 2016 Building Energy Efficiency Standards) take effect on January 1, 2017.

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 Port Master Plan (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. Additionally, Chapter 3 of the CCA, Coastal Resources Planning and Management Policies, provides guidance for public access to the coast, recreation, marine environment, land resources, development, and SLR. A list of applicable policies and an associated consistency review is provided in Section 4.9, *Land Use and Planning*, Table 4.9-2.

California Coastal Commission Sea Level Rise Policy Guidance

The PMP Amendment must be consistent with the Coastal Act, including policies from Chapters 3 and 8, which require protection of certain coastal resources that may be affected by SLR. For example, 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, and beaches), water quality and supply, cultural resources, community character, and scenic quality. There are several Coastal Act sections that are relevant to SLR:

- 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.
- 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 (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.

To guide local governments and ports in addressing SLR in the context of the Coastal Act, the CCC issued Sea Level Rise Policy Guidance in 2015. The Sea Level Rise Policy Guidance provides a framework for addressing SLR in PMPs and Coastal Development Permits. 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 (California Coastal Commission 2015).

State CEQA Guidelines (2010)

The State CEQA Guidelines require lead agencies to describe, calculate, or estimate the amount of GHG emissions that would result from a project. Moreover, the State CEQA Guidelines emphasize the necessity to determine potential climate change effects of a project and propose mitigation as necessary. They do not prescribe or recommend a specific analysis methodology or provide quantitative criteria for determining the significance of GHG emissions. However, the State CEQA Guidelines do confirm the discretion of lead agencies to determine appropriate significance thresholds, but require the preparation of an EIR if “there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with adopted regulations or requirements” (Section 15064.4).

State CEQA Guidelines Section 15126.4 includes considerations for lead agencies related to feasible mitigation measures to reduce GHG emissions, which may include, among others, measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency's decision; implementation of project features, project design, or other measures that are incorporated into the project to substantially reduce energy consumption or GHG emissions; offsite measures, including offsets that are not otherwise required, to mitigate a project's emissions; and measures that sequester carbon or carbon-equivalent emissions.

State CEQA Guideline Section 15183.5(a) provides that a lead agency may analyze and mitigate significant effects of GHG emissions at a programmatic level, such as in a plan targeted to reduce GHG emissions. Additionally, the section allows for tiering off and incorporating by reference the environmental analysis done for such plans.² Subdivision (b) of Section 15183.5 also states that a plan to reduce GHG emissions may be used to find that a project's incremental contribution to the cumulative effect of GHG emissions is not cumulatively considerable if the project complies with the adopted plan and mitigation program. Subdivision (b) of Section 15183.5 provides that such a plan should (1) quantify GHG emissions over a specific time period resulting from activities within a defined geographic area; (2) establish a level below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable; (3) identify and analyze GHG emissions resulting from specific actions or categories of actions within the defined geographic area; (4) specify measures or a group of measures, including performance standards, that if implemented on a project-by-project basis would collectively achieve the specified emissions level; (5) establish a mechanism to monitor the plan's progress; and (6) be adopted in a public process following

²Note that this analysis does not tier off or rely on any previous CEQA analysis conducted for a GHG plan.

environmental review. Such plans may be used in the cumulative impact analysis of later projects, but such later project analysis must identify those requirements specified in the plan that apply to the project and, if those requirements are not otherwise binding and enforceable, incorporate them as mitigation measures.

4.6.3.3 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 ARB 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 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.

4.6.3.4 Local

Port of San Diego Clean Air Program

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. The Clean Air Program is one key area of the Green Port Program, with the primary goal of reducing GHG emissions and other air emissions from Port operations at its three marine terminals. The Clean Air Program seeks to voluntarily reduce emissions through the identification and evaluation of feasible and effective control measures. Through this program, the District has identified control measures to achieve a reduction of pollutants from the largest sources. The Clean Air Program will continue to be refined and adapted to future changes in District operations.

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 energy efficiency education 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

As noted above in Section 4.6.3.3, ARB 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 (ARB 2008). 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 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 MTCO₂e in 2006 and estimated 426.6 million MTCO₂e in 1990 statewide) was used as the Port-wide reduction target for 2020.³

The CAP's 2020 projections and reduction targets (1990 levels) for each activity are based on the growth projections specific to each tenant and activity type. 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 4.6-6 provides the CAP's 2006 baseline, projected future year (2020) GHG emissions, and future year GHG emission targets (1990 levels) by activity within the District's jurisdiction. The project includes lodging- and recreational boating-related emissions. As shown, lodging-related emissions are expected to increase from 137,429 MTCO₂e in 2006 to 249,852 MTCO₂e in 2020 without implementation of any CAP or State measures. In order to reach the CAP's target of achieving 124,004 MTCO₂e by 2020 (1990 levels), District lodging-related emissions would need to be reduced by 50% below 2020 business-as-usual (BAU) levels.⁴ Recreational-boating emissions would need to be reduced by slightly less (42% below 2020 BAU). 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, several of which are specific to the lodging and recreational boating sectors.⁵

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 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 Port of San Diego's geographic location as well as specific activity types and their associated sources. Therefore, because the CAP targets align with statewide goals, the CAP is consistent with AB 32. Through 2020, the CAP is a qualifying plan under State CEQA Guidelines Section 15183.5.

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.

⁴ Unlike ARB's BAU targets, which are statewide percentage targets, these targets are specific to the District in order to meet the CAP's 2020 goal and AB 32's reduction requirement.

⁵ Measures specific to the lodging and recreational boating sectors are listed and analyzed in Table 4.6-10 below, in Section 4.6.4.3, *Project Impacts and Mitigation Measures*.

Table 4.6-6. GHG Emissions (Metric Tons per Year) by Activity Shown in the CAP

Category	Activity	GHG Emissions By Category and District Activity Type			Percentage Reduction to Achieve 1990 Levels – Specific to the District	
		2006 Baseline	2020 BAU	1990 ¹ Levels	2006 Baseline	2020 BAU
Port Operations	Port Operations	37,164	38,930	33,533	10%	14%
Maritime	Ocean Going Vessels	55,162	72,786	49,773	10%	32%
	Recreational Boating	80,441	118,252	72,583	10%	39%
	Other Terminal Activity ²	89,242	109,859	80,524	10%	27%
	Total Maritime	224,845	300,897	202,880	10%	33%
Other	Industrial	137,426	138,258	124,001	10%	10%
	Shipbuilding	123,725	123,545	111,638	10%	10%
	Lodging	137,429	249,852	124,004	10%	50%
	Other	165,840	188,217	149,639	10%	20%
	Total Other	564,420	699,872	509,282	10%	27%
Total Port-wide		826,429	1,039,699	745,695	10%	28%

Source: Table ES-2 of the CAP (District 2013)

Bold activities represent categories associated with the project.

¹ The CAP only presents the 2020 target (1990 levels) for broad source types (electricity & natural gas, transportation, water, and waste) and does not clearly present the emissions target for each activity (ocean-going vessels, shipbuilding, etc.) in the main body of the CAP. However, these emission estimates are presented in the CAP appendices (Table ES-2). To calculate the reductions needed from maritime-specific sources, the same methodology as was used in the CAP, using information in the CAP appendices, was employed; 2006 levels were reduced by approximately 10% to get to 1990 emission estimates. This allows for percentage reductions below 2020 levels to be calculated and used as the performance-based standard herein.

² “Other Terminal Activity” includes cargo handling equipment, commercial harbor craft, locomotives, heavy-duty trucks (for transport of goods to/from ocean-going vessels), cruise terminal transportation, and terminal tenant operations.

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 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 D. The methodology used to estimate air quality emissions discussed below is the same that was used to estimate GHG emissions, as described in Section 4.2, *Air Quality and Health Risk*, with the exception of electricity-, water-, and waste-related emissions.

Construction

Landside Components

Construction of the proposed project would generate emissions of GHG emission in the form of CO₂, CH₄, and N₂O that that could result in short-term impacts on climate change. Emissions associated with combustion exhaust and electricity consumption were estimated using a combination of emission factors and methodologies from the California Emissions Estimator Model (CalEEMod), version 2016.3.1, ARB's EMFAC2014 model, ARB commercial harbor craft methodology, and the ARB Pleasure Craft model based on project-specific construction data (e.g., schedule, equipment, truck volumes) provided by the project proponent and verified by the District for similar projects.

- It is projected that landside construction would occur in four phases between 2018 and 2021. Each sub-phase of construction would be composed of several activities, such as demolition of existing uses, foundations, and structural frame. Phasing information, including the projected construction schedule, construction equipment, material quantities, and truck trip quantities, was obtained from the project proponent and is contained within Appendix D. The particular proposed construction phasing would be a condition of a future Coastal Development Permit for the project.
- Equipment would include typical heavy-duty equipment (e.g., loaders, excavators, crushers) to demolish existing structures and development, prepare the site, lay the foundation, construct the buildings and ancillary uses, and crush demolition materials for re-use. Emissions associated with diesel-powered construction equipment were estimated based on emission, horsepower, and load factors from CalEEMod, with activity data (hours per days, days of use) provided by the project proponent. According to the project proponent, construction would include use of some electrically powered construction equipment, including dewater pumps, material lifts, and cranes. GHG emissions from electrically powered pieces of equipment were estimated based on equipment power ratings provided by the project proponent and utility-specific emission rates.
- Emissions associated with 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 ARB's EMFAC 2014 web tool, similar to the vehicle split used in CalEEMod (e.g., LDA = 50%, LDT1 = 25%, LDT2 = 25%), a CalEEMod default trip length of 10.8 miles per trip and two trips per employee, and an estimate of workers per day by phase as provided by the project proponent.
- Emissions associated with material deliveries were estimated based on the average of T6 instate small and T6 instate heavy emission rates from EMFAC, CalEEMod default trip length of 7.3 miles per trip for material deliveries, and delivery truck estimates by phase provided by the proponent.
- Demolition debris that is not recycled on site is expected to be hauled to either a recycling facility or a landfill. For purposes of this analysis, it was assumed that the recycling facility would be Hanson Aggregates in Miramar, which is 12.6 miles from the project site. It was assumed that the landfill facility would be the Otay Landfill, which is 15.0 miles from the project site. Emissions associated with truck travel to haul demolition debris were estimated based on the weighted average of these two disposal locations (which comes out to 13.0 miles per one-way trip) assuming a CalEEMod default 20-ton (16 cubic yards) truck capacity. Emissions associated with demolition material truck trips were estimated using truck haul information

provided by the project proponent and exhaust emission factors from ARB's EMFAC model (ARB 2014b) based on T7 Single Construction annual average emission factors for each construction year (2018–2021).

- The majority of excavated materials (36,500 cubic yards) would be taken to an offsite recycling facility, while the remaining materials (1,500 cubic yards) are expected to be taken to the nearest landfill. Similar to the hauling of demolition debris above, it was assumed that the recycling facility would be Hanson Aggregates in Miramar and the landfill facility would be the Otay Landfill. However, as noted in Section 4.7, *Hazards and Hazardous Materials*, contaminated soils may be encountered during construction activities. If contaminated soils are encountered, they must be disposed of at an appropriate facility, the closest of which is in Arizona. While it is currently unknown if soils are contaminated, this analysis conservatively assumes that all soils are contaminated and would need to be hauled to an appropriate facility in Arizona. Emissions associated with truck travel to haul excavated materials were estimated based on the distance from the project site to the eastern boundary of the air basin (75.6 miles oneway)⁶ assuming a CalEEMod default 20-ton (16 cubic yards) truck capacity. Emissions associated with excavated material truck trips were estimated using truck haul information provided by the project proponent and exhaust emission factors from ARB's EMFAC model (ARB 2014b), based on heavy duty tractor trailer (T7 Single Construction) annual average emission factors for each construction year (2018–2021).
- Dump trucks would be active on site to move dirt and materials around and water trucks would be active on site for watering of exposed surfaces to provide fugitive dust control. Emissions associated with dump and water truck activity on site were estimated using truck quantity estimates provided by the project proponent, exhaust emission factors from ARB's EMFAC model assuming a 5-mile-per-hour travel speed for water trucks (T6 Instate Heavy) and Dump Trucks (T7 Single Construction), based on annual average emission factors for each construction year (2018–2021) (ARB 2014b). It was assumed onsite dump and water trucks would be active for 8 hours per day.

Waterside Components

- Construction of the marina is expected to begin when the hotel is nearly complete and take 6 to 9 months to complete. Based on the landside construction schedule, it was assumed that Phase I of the marina construction would begin in fall 2020 and last through early summer 2021, when the hotel is expected to be complete and Phase I would be ready for opening day of the project. Phase II is expected to be built at a later date based on market conditions, which is anticipated to be approximately 5 years after the hotel is operational. Both phases of the marina construction would include the use of barge-based equipment to install docks, tugs to bring barges to and from the staging area, skiffs to push docks around, and a push boat. Emission calculations are provided in Appendix D. Tugs would be used to bring the barges from the staging area to the project site at the beginning of construction of each phase. The Derek barge would held in place by spuds or an anchor and is expected to contain the crane and jet pump, which are described below. The Derek barge is expected to remain on site for the entire marina construction period

⁶ As the CEQA thresholds used in the impact analysis are regional and relate to the attainment status of air quality standards within San Diego County, haul truck trip emissions were confined to those occurring within the county.

for each phase of the marina expansion, while the deck barge is expected to remain on site for 1 month during each phase to unload the gangways. The barges have no engines.

- For each phase of waterside construction, there would be up to four total tug trips: two to bring in the barges, and two to remove the barges. Based on the in-water construction plan from the project proponent,⁷ the tug is expected to be equipped with a 2,000 horsepower (hp) Tier 3 main/propulsion engine. Tugs are equipped with auxiliary engines, the size of which was estimated based on the ratio of known auxiliary to main engine power rating in the District's most recent maritime emissions inventory, which is currently in progress. Tug activity is based on a 6-knot travel speed, 4-mile distance from the tug and barge staging area to the project site, and 1 hour to anchor (and remove) the barge. Emissions are based on zero-hour emission factors, engine deterioration factors, fuel correction factors, useful life, and load factors for main propulsion and auxiliary tug engines from the ARB (ARB 2010).
- A push boat would be used periodically during each phase of the marina expansion instead of the winch to anchor the barges. Push boat activity is expected to be minimal and average 2 hours per day when in use. Based on the in-water construction plan from the project proponent, the push boat is expected to be equipped with a 450 hp diesel inboard engine. In order to estimate emissions, gasoline outboard engines of this size within the ARB's Personal Watercraft Model (ARB 2015) were averaged to determine the average model year. Based on this averaging, the push boat was assumed to be model year 2007. For each phase of waterside construction, emissions estimates assume the push boat arrives and maneuvers the barge on the worst-case day, and that the push boat is active for 2 hours per day, once a week, for the 9-month construction period. Emissions are based on zero-hour emission factors, engine deterioration factors, fuel correction factors, useful life, and load factors for main propulsion and auxiliary work boat engines from the ARB (ARB 2010).
- Two small skiffs would be used to push the docks around during each phase of the marina construction. Based on information from the project proponent, each skiff is expected to be equipped with a 60 hp outboard engine. In order to estimate emissions, gasoline outboard engines of this size within the ARB's Personal Watercraft Model (ARB 2015) were averaged to determine the average model year. Based on this averaging, each skiff was assumed to be model year 1999. Emissions estimates assume the skiffs arrive and maneuver docks for 2 hours on the worst-case day. It was assumed the skiffs are active 2 hours per day for each 9-month marina construction period.
- The Derek barge would have a large crane and jet pump on it during each phase of the marina construction. Based on information from the project proponent, the crane is expected to be equipped with a 275 hp Tier 4 (final) engine, and the jet pump is expected to be equipped with a 350 hp Tier 4 (final) engine. It was assumed that the crane and jet pump will be active 8 hours per day for each 9-month marina construction period. Emissions are based on CalEEMod emission factors for and default load factors for cranes and pumps from CalEEMod.

Operation

Operation of the proposed project would generate GHG emissions in the form of CO₂, CH₄, and N₂O. Activity associated with project conditions is broken into landside and waterside components. Landside sources are those sources that occur on land, and include GHG emissions from motor

⁷ The construction plan would be a part of the Coastal Development Permit.

vehicle trip generation, electricity consumption, combustion of natural gas for space and water heating, water consumption, and wastewater and waste generation. Waterside sources are those sources that occur in the water, and include continuation of ferry services and additional slips that would expand recreational boating opportunities, including yacht cold ironing. Annual GHG emissions were estimated using a combination of emission methods and emission factors from published best available documentation. In particular, emissions from landside activities are based on the methods, assumptions, and data sources within CalEEMod using emission factors from ARB's EMFAC2014 model, and other published sources. Emissions from waterside activities were estimated based on methodologies and guidance published by ARB for estimating emissions from commercial and personal watercraft and activity information provided by the project proponent. While Phase II of the marina expansion is not expected to be operational at the project's opening day of 2021, this analysis assumes that the proposed project, including Phase II of the marina expansion, would be operational in 2021.

Landside Components

Annual GHG emissions associated with the landside components (market-rate hotel tower, lower-cost visitor-serving hotel, retail, including the WTC facilities, and public plaza and park areas) were estimated based on a combination of proponent input and emission calculation defaults within the above emission calculation models. Below is a description of the various sources and the methods used to estimate mass daily emissions.

- Emissions from motor vehicle travel were estimated using trip generation provided by Chen Ryan (Appendix K-1), CalEEMod default trip lengths and mode and destination splits for commercial uses, and exhaust emission rates from ARB's EMFAC2014 web tool. Emissions were estimated based on the average vehicle fleet operating in San Diego County during the analysis years using the same methodology used in CalEEMod.
- Emissions from electricity consumption were estimated based on detailed consumption data (i.e., kilowatt-hours) from the project proponent and current and projected SDG&E emission rates for each analysis year.
- Emissions from natural gas consumption were estimated based on detailed consumption data (i.e., therms) from the project proponent and CalEEMod emission factors for natural gas combustion.
- Emissions from water consumption were estimated based on detailed consumption data (i.e., gallons) from the project proponent, electricity consumption factors (to supply, distribute, and treat the water and wastewater) from CalEEMod, and current and projected SDG&E emission rates for each analysis year.
- Emissions from wastewater were estimated based on detailed generation data (i.e., gallons) from the project proponent and CalEEMod's default method for estimating wastewater CH₄ emissions from anaerobic digestion.
- Emissions from solid waste were estimated based on detailed generation data (i.e., tons) from the project proponent and CalEEMod's method for estimating landfill gas emissions in San Diego County.

Waterside Components

Annual GHG emissions associated with the waterside components (ferry service and recreational boating) were estimated based on a combination of proponent input and emission calculation defaults within the above emission calculation models. Below is a description of the various sources and the methods used to estimate GHG emissions.

- Ferry service currently exists between the project site and Coronado Ferry Landing. The ferry operates 12 times a day every day of the year. For purposes of analysis, it was assumed the project would have no effect on ferry activity (i.e., on operating hours per year), but the project would benefit from the proposed engine upgrade that will occur before opening day to comply with ARB's Harbor Craft Engine replacement rule. It is estimated that the ferry currently has two 2003 Volvo TAMD 74 engines at 390 hp each. The operator is planning to replace these engines with two 2017 model year John Deere 6068AFM85 engines at 230 hp each in January 2018. Based on information from ARB (2004), the auxiliary to propulsion power ratio average is 12.8% for ferry boats. Based on this estimate, there are currently two 50 hp auxiliary engines on the ferry, and two 30 hp auxiliary engines will be included in the upgraded ferry. According to the ferry operator (Gensler pers. comm.), hours of operation are 12 hours per day, 365 days per year, which translates to 4,380 hours per year. While the auxiliary engines are on for that entire time (12 hours per day), the propulsion engines are on for only half that time (6 hours per day), or 2,190 hours per year. Emissions were estimated based on zero hour emission factors, adjustments for ultra-low sulfur fuel and deterioration, and engine load factors for ferry and excursion vessels (0.42 for propulsion, 0.43 for auxiliary) from the ARB methodology (ARB 2007).
- The proposed project would expand the marina from 12 slips under existing conditions to 62 total slips under full existing plus project buildout conditions. The expanded marina would allow for additional recreational boating and larger yachts to berth at the project site.

It was assumed that yachts that berth in the 100-foot and larger slips are diesel-powered yachts. To estimate vessel characteristics for these yachts, Lloyds Register of Ships data were used for yachts and the propulsion power, service speed, and length were determined. The Lloyds data produced 364 yachts that would fit in the 36 100-foot and larger slips to be built. Power and speed were averaged for each slip size. Auxiliary power was estimated at 10% of propulsion power based on crew boats in the 2015 Port of Los Angeles inventory (POLA 2016). Crew boats were used as proxies for yachts because they are passenger boats with similar operating characteristics.

Based upon information from the project proponent, yachts stay 55 days on average and cold iron while at berth. In addition, yachts do not operate within the Bay, but transit in and out from foreign destinations. Based on this 55-day duration, 6.6 calls per year per slip are assumed (365 days/55 days per slip), and no criteria pollutants were assumed while at berth because these yachts cold iron the entire time at berth. To calculate movements where both the propulsion engine and auxiliary engine are running, distances from the project site to Point Loma were estimated at 6.3 nautical miles and from Point Loma to the Orange County border at 46 nautical miles. Time in mode was estimated based on the in-harbor speeds used in recent Port of Los Angeles and Port of Long Beach work (4.5 knots) and service speed outside the harbor to the Orange County border both coming and going (varies by vessel). Load factors were estimated (0.45 for propulsion and 0.43 for auxiliary) based on the ARB Harbor craft methodology for

“Crew Boat” vessels (ARB 2007). Emission factors were taken directly from ARB harbor craft methodology. Emission factor deterioration was calculated based on crew boats, which have a useful life of 22 years and annual hours of 733 per year for propulsion and 3,036 for auxiliary.

For the smaller slip sizes, the ARB Pleasure Craft model was used to estimate emissions from diesel and gasoline inboard and gasoline sterndrive pleasure boats. Based on the size of the boats, the 250 hp bin was assigned to the 50-foot slip, the 500 hp bin to the 60-foot slip, and the 750 hp bin to the 75-foot slip. Emissions and hours per year per vessel were averaged based on the populations of each type of engine in the Pleasure Craft model.

- A water taxi service currently services the project site. The water taxi service is a pre-arranged, on-demand service that provides water transportation throughout the Bay to groups of no fewer than 20 people, some of which may service the project site. The service operates on a limited basis and only operates when the service is requested. Specifics regarding the frequency and length of time the service operates are unknown, but based on correspondence with the operator, it was concluded that activity is minimal and any associated emissions would also be minimal. Moreover, because the project proposes no changes to this service, emissions would not change under project conditions. Therefore, emissions associated with the water taxi service are not included within the project quantification.

Climate Change

The climate change analysis consists of a quantitative assessment of future SLR and storm surge projections compared to the project site elevation. The analyses began with a review of California guidance and estimates of climate change impacts. For SLR, the analysis reviews historic and projected future rates of SLR. For future rates of SLR, this analysis uses the projections developed by the National Research Council and adopted by CCC and CO-CAT for 2030 and 2050. Projections of SLR for the end of the project’s useful life (i.e., 2082 or 66 years) were developed by linearly interpolating 2050 and 2100 data points to calculate projected SLR in 2082 (see Table 4.6-5).

The SLR assessment was conducted using the lowest elevation of the surrounding bulkheads (approximately 7 feet above mean sea level). The bulkheads at the waterfront are the first line of defense against rising seas. If the bulkheads are breached then water may be able to infiltrate the project site. The bulkhead elevations were compared to a range of SLR projections and timeframes on top of high tide (i.e., mean higher high water). This provides insight on the possibility of daily inundation of the project site. To assess the possibility of inundation during future storm events, the analysis added the historic 100-year storm water elevation (1% annual return probability) to the SLR projections and compared this combined water level to the bulkhead elevations.

4.6.4.2 Thresholds of Significance

Climate change is a global problem and GHGs are global pollutants, unlike criteria air pollutants (such as ozone precursors), which are primarily pollutants of regional and local concern. Given their long atmospheric lifetimes, GHGs emitted by countless sources worldwide accumulate in the atmosphere. No single emitter of GHGs is large enough to trigger global climate change on its own. Rather, climate change is the result of the individual contributions of countless past, present, and future sources. Therefore, GHG impacts are inherently cumulative, and the analysis below is a cumulative impact analysis.

Greenhouse Gases

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)).

A number of 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; they are only recommendations for consideration by CEQA lead agencies. Some commonly used threshold approaches include (1) consistency with a qualified GHG reduction strategy, (2) performance-based reductions,⁸ (3) numeric “bright-line” thresholds, and (4) efficiency-based thresholds.

Summary of “Newhall Ranch” Supreme Court Decision

The recent California Supreme Court decision in the *Center for Biological Diversity et al. vs. California Department of Fish and Wildlife, the Newhall Land and Farming Company* (November 30, 2015, Case No. S217763) (hereafter *Newhall Ranch*), confirmed that the use of BAU analysis (i.e., 29% below business as usual), a performance-based approach, would be satisfactory. However, for a project-level analysis that uses ARB’s statewide BAU targets, substantial evidence must be presented to support the use of those targets for a particular project at a specific location. The Court notes that this may require examination of the data behind the statewide model and adjustment to the levels of reduction from BAU used for project evaluation. To date, neither ARB nor any lead agencies have provided any guidance on how to adjust AB 32’s statewide BAU target for use at the project level.

The *Newhall Ranch* decision suggested several approaches for determining significance of GHG emissions are appropriate as alternatives to the percentage below BAU approach, but did not foreclose other methodologies that may be used by lead agencies. In any case, the decision affirmed that “thresholds only define the level at which an environmental effect ‘normally’ is considered significant; they do not relieve the lead agency of its duty to determine the significance of an impact independently.” Some of the Court’s suggested approaches are introduced next and are discussed more thoroughly in the context of the proposed project below.

- **Consistency with a Qualified GHG Emissions Reduction Plan.** Use of a GHG emission reduction plan consistent with State CEQA Guidelines Sections 15183.5 or 15064.4 for a particular geographic area.
- **Quantitative Thresholds.** Use of a quantitative threshold (such as the Bay Area Air Quality Management District’s bright-line threshold).⁹
- **Compliance with Regulatory Programs.** This approach would include an assessment of the project’s compliance with regulatory programs designed to reduce GHG emissions from

⁸ Performance-based reductions include the “percentage below business-as-usual” threshold approach and are generally based solely on statewide targets, which has been used widely in the past. This approach was the subject of the *Newhall Ranch* case and presently is subject to uncertainty until the issues raised by the California Supreme Court ruling are resolved.

⁹ Note that while *Newhall Ranch* did not explicitly discuss efficiency-based thresholds, they are a form of quantitative threshold and therefore are included in the *Applicability of Available Thresholds* discussion herein.

particular activities (e.g., building efficiency, transportation, water usage). To the extent that a project's design features comply with or exceed the regulations outlined in the Scoping Plan and adopted by ARB or other State agencies, the lead agency could appropriately rely on their use as showing that the project is reducing emissions consistent with AB 32 and, thus, that emissions are less than significant.

- **CEQA Streamlining.** Certain land use projects (such as residential, mixed use, and transit priority projects) could use SB 375's expressed allowance for streamlining of transportation impacts based on metropolitan regional SCS to streamline analysis of emissions from cars and light trucks. Under any methodology, the *Newhall Ranch* case recognizes that if GHG emission impacts are still significant after adoption of all feasible mitigation measures and consideration of project alternatives, the lead agency may adopt a statement of overriding considerations with the appropriate findings.

Applicability of Available Thresholds

In light of the recent *Newhall Ranch* decision, the following section discusses each applicable approach and analyzes its specific applicability to the project.

Performance-Based Reductions (e.g., BAU)

Performance-based thresholds are based on a percentage reduction from a projected future condition. For example, reducing future BAU emissions by the AB 32 target of 29% (below 2020 BAU levels) through a combination of State measures, project design features (e.g., renewable energy), or mitigation is a performance-based threshold. The performance-based approach is based on the project's reduction in emissions from an unmitigated condition. Other lead agencies have adopted performance-based targets that are all tied to the AB 32 target of achieving 1990 levels by 2020, but the prescribed percentage reduction can vary depending on the version of the Scoping Plan and targets therein that were used. For example, San Joaquin Valley Air Pollution Control District recommends a 29% reduction, which is based on the 2008 Scoping Plan, while Sacramento Metro Air Quality Management District previously recommended a 21.7% reduction from a projected no action taken (NAT) scenario,¹⁰ which is based on the 2011 re-adopted Scoping Plan, whose emission targets vary slightly from 2008 to account for revised estimates for future fuel and energy demand.

With the *Newhall Ranch* decision, relating a given project to the achievement of State reduction targets likely requires adjustments to ARB's statewide BAU model not only to isolate new development emissions but also to consider unique geographic conditions and operational characteristics that would be required to use the BAU performance-based methodology for a specific project. To date, this type of adjustment to the statewide BAU target has not been formulated and, therefore, is not appropriate for the project's analysis. The primary value of a performance-based target, as indicated in *Newhall Ranch*, is that it can provide a scenario by which to evaluate the effectiveness of a project's efficiency and conservation measures to reduce GHG emissions. As such, future year targets can be used to benchmark performance, using either statewide or regional emission targets, to determine a project's fair share of mitigation.

¹⁰ The NAT scenario does not include any State regulations designed to reduce GHG emissions, including improvements to the Title 24 standards, RPS, LCFS, or Pavley Rules.

Compliance with a Qualified GHG Reduction Plan

Under this approach, a qualified plan may be used in the cumulative impact analysis for later projects when the analysis “identifies those requirements specified in the plan that apply to the project.” For a GHG reduction plan to be considered a qualified plan, it must meet certain criteria established under State CEQA Guidelines Sections 15183.5 (b) and 15064.4, also specified above. Consequently, if a project is consistent with a local CAP that was created to meet AB 32’s GHG targets, then the project would be considered consistent with statewide GHG reduction goals for 2020. Additionally, if a CAP was adopted that was consistent with the State’s overall goals for post-2020, including the downward trajectory as clarified in SB 32 and EO S-03-05, and a project is consistent with that CAP, it would be considered consistent with the State’s post-2020 GHG emission strategy. Section 15183.5 also specifies that the project’s CEQA analysis “must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project.” The District adopted a CAP in 2013 that sets forth GHG reduction targets for 2020 and 2035 and reduction measures to achieve these targets.

For 2020, the CAP meets the requirements of State CEQA Guidelines Section 15183.5 as specified in Appendix A of the CAP. The CAP quantifies existing and projected GHG emissions by sectors¹¹ and activity type,¹² as well as identifies and analyzes GHG emission reductions from the same time period within the District. The CAP establishes a 10% reduction goal for the District for 2020, below which the contribution of GHG emissions from activities covered by the plan would not be cumulatively considerable. The GHG emission reduction goal and measures also serve as the CAP’s performance standards, with accompanying reduction targets or performance standards across six categories.¹³ The CAP also specifies measures that, if implemented on a project-by-project basis, collectively achieve the GHG reduction goals for the District.¹⁴ The plan and its effectiveness are regularly monitored through a process known as *adaptive management* to ensure that it is achieving the GHG reduction goals.¹⁵ The CAP was adopted through a lengthy public process and a CEQA exemption was adopted by the District (with an initial study) prior to the CAP’s adoption. For a project that would have construction activities occurring prior to the end of 2020 and/or would start operations prior to the end of 2020, consistency with the CAP is appropriate for 2020 to determine whether significant GHG emission impacts would result. Because the CAP does not include post-2020 reduction quantification by sector and activity type, consistency only with the CAP post-2020 is not an appropriate methodology. However, the CAP’s GHG emission reductions by sector and activity type established to meet the CAP’s 2020 goals can be used to extrapolate the appropriate GHG emission reduction requirements to meet SB 32 and EO S-03-05 for each District-specific sector and activity type.

¹¹ Sectors include electricity, natural gas, on-road transportation, off-road equipment, water usage and wastewater, and waste.

¹² Activities include industrial, shipbuilding, lodging, ocean-going vessels, recreational boating, other terminal activities, port operations, the convention center, and other activities within the District.

¹³ Categories include energy efficiency, alternative energy, transportation and land use, water, waste, and miscellaneous.

¹⁴ The implementation of the measures and performance standards are specified in Appendices A and F of the CAP, as well as Board of Port Commissioners Policy 750, which is incorporated herein by reference.

¹⁵ Board of Port Commissioners Policy 750.

Quantitative Thresholds

Numerical Bright-Line

In general, numerical bright-line thresholds identify the point at which additional analysis and mitigation of project-related GHG emission impacts is necessary. Currently, bright-line thresholds have been developed for commercial projects, residential projects, and stationary sources. Commercial and residential bright-line thresholds are typically based on a market capture rate or a gap analysis,¹⁶ which is tied back to AB 32 reduction targets (1990 levels by 2020).¹⁷ These bright-line thresholds reflect local or regional land use conditions, particularly residential and commercial density and access to transit. For example, the Bay Area Air Quality Management District's bright-line threshold of 1,100 MTCO₂e captures land use conditions present in the Bay Area at the time of analysis, and does not necessarily reflect conditions in other areas of the state, including within the District, that may display varying land use patterns and density. A stationary source bright-line threshold of 10,000 MTCO₂e has been adopted by multiple air districts and other agencies as part of the permitting process, and the South Coast Air Quality Management District (SCAQMD) currently recommends use of the same threshold for permitted source projects when SCAQMD is the lead agency.

A numerical bright-line value based solely on District-wide and/or hotel or boating projects does not exist. Moreover, no bright-line threshold has been formally adopted by an air district or other lead agencies for use in the San Diego region. Both the City and County of San Diego have in the past recommend an interim 900 MTCO₂e screening level as a theoretical approach to identify projects that require further analysis and potential mitigation, but both agencies no longer provide any numerical bright-line recommendations. The screening level identifies projects that would result in sufficiently low GHG emissions to be less than cumulatively considerable without mitigation. This 900 MTCO₂e screening level threshold, while potentially appropriate for small maritime projects or other land use types, was not devised to include emissions associated with recreational boating or water transportation. Consequently, this screening level is inappropriate for the proposed project. The stationary industrial bright-line threshold of 10,000 MTCO₂e is also inappropriate for the project because it is not an industrial or stationary source project.

Efficiency-Based

Another type of quantitative threshold is an efficiency-based threshold. Efficiency-based thresholds represent the GHG efficiency needed for development to achieve California's GHG emissions target established under AB 32. While the *Newhall Ranch* dicta did not specifically recommend the efficiency-based approach, the ruling did note that numerical threshold approaches may be appropriate for determining significance of GHG emissions and to emphasize the consideration of GHG efficiency.

GHG efficiency thresholds that have been developed using the service population (residences + jobs) methodology have been targeted to residential, commercial, and mixed use projects with GHG emissions resulting from a mixture of building energy, transportation, solid waste, and other emissions similar in proportion to that of the overall land use sector and that occur in a roughly

¹⁶ The gap analysis demonstrates the reductions needed at the residential and commercial land use levels to achieve State targets. Capture is the process of estimating the portion of projects that would result in emissions that exceed a significance threshold and would be subject to mitigation.

¹⁷ The AB 32 scoping plan identifies specific measures to reduce GHG emissions to 1990 levels by 2020.

linear relationship to the number of employees and/or residential population. While efficiency thresholds for other uses, such as schools and hotels, have not yet been developed, the same linear rationale can be applied as long as the appropriate metrics are chosen to ensure an “apples to apples” comparison.

The CAP is not a no-growth plan; it includes growth and emission projections for 2020 and reduction targets (1990 levels) for each activity based on the growth projections specific to each tenant and activity type. For lodging, the CAP includes growth associated with anticipated land use development projects that were projected to be built by 2020. For recreational boating, the CAP includes growth in boating activity in the ARB’s OFFROAD2007 model. 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 conditions based on District-specific growth assumptions. The CAP also identifies the 2020 GHG reduction target (1990 levels, or 10% below base case) (see Table 4.6-6). Based on the estimated BAU emissions for lodging uses, the hotel sector will need to increase efficiency to 13.89 MTCO₂e/room to reach the 2020 target of 1990 emissions levels while accounting for activity growth by 2020. Comparison of the hotel emissions to the CAP efficiency metric is used, in part, for the proposed project’s GHG emission analysis. Note that the 2020 CAP target is used to help derive or extrapolate District-specific future year efficiency targets in Opening Year 2021, 2030, and 2050.

Note that efficiency-based thresholds are most appropriate for development projects that include some form of occupancy by which to benchmark emissions (e.g., the number of residences, jobs, or occupied hotel rooms). Recreational boating and water transportation uses do not generate significant direct employment or other forms of meaningful output to easily benchmark emissions. In order to develop an efficiency value, some form of activity, such as water taxi trips, along with the amount of reductions needed relative to the base year by the target year to meet the emissions target, would need to be quantified. This level of detail is not realistic given that 2006 base year activity is unknown. Accordingly, efficiency thresholds are not applicable to the recreational boating and water transportation element of the project.

Compliance with Regulatory Programs

Another approach for determining whether a project would result in significant GHG emission impacts is determining whether a proposed project is in compliance with regulatory programs designed to reduce GHG emissions from particular activities. To the extent a project complies with or exceeds those programs adopted by ARB or other State agencies, a lead agency could rely on this compliance to show less-than-significant impacts. However, such analysis is only applicable within the area governed by the regulations. For example, consistency with regulations addressing building efficiency would not suffice to determine that the project would not have significant GHG emissions from transportation. The proposed project’s compliance with regulatory programs adopted by ARB or other State agencies is used, in part, for the proposed project’s GHG emission analysis.

Newhall Ranch specifically mentions consistency with both SCS (per SB 375) and AB 32, which are each discussed below. Also, other recent case law mention the need to demonstrate consistency with the long-term targets in SB 32 (2030) and S-03-05 (2050), which are also addressed below.

- **Compliance/Consistency with AB 32 (2020).** A lead agency could also assess project-level consistency with AB 32 in whole or part by looking to compliance with regulatory programs designed to implement AB 32. To the extent a project’s design features comply with or exceed the regulations outlined in the Scoping Plan and adopted by ARB or other State agencies, a lead

agency could appropriately rely on their use as showing compliance with performance-based standards adopted to fulfill the statewide goal for reducing GHG emissions.

- **Consistency with SB 32 (2030) and S-03-05 (2050) Targets and Planning.** A lead agency could also assess project-level consistency with the targets in the EOs and with current planning for the post-2020 period or substantial progress toward these goals over time. At present, the regulatory framework to achieve the 2030 target is in its infancy and is not sufficiently robust to support a consistency argument, but consistency with the targets is nevertheless a potential approach.

CEQA Streamlining

The *Newhall Ranch* ruling affirmed that CEQA expressly allows streamlining under SB 375 of certain residential, commercial, and mixed use projects that are consistent with the limits and policies specified in an applicable SCS. The ruling pointed out that a qualifying project need not additionally analyze GHG emissions from cars and light trucks. In San Diego, the SCS is contained within SANDAG's recently adopted 2050 RTP/SCS (SANDAG 2015). Projects eligible for this streamlining can "tier" off the RTP/SCS EIR for CEQA purposes. Only residential and mixed-use (commercial/residential) projects that fit the definition of a Transit Priority Project or Residential / Mixed-Use Residential Project (as defined in SB 375) are eligible for streamlined review. Because the project is not a residential or mixed-use project, the proposed project would not be eligible for streamlined review because it does not meet the qualifying criteria defined in SB 375.

Post-2020 Thresholds

While the *Newhall Ranch* holding did not rule on whether a post-2020 climate change analysis is required for CEQA documents, the decision mentioned that consistency with 2020 goals will become a less definitive guide over time and consistency with long-term emission reduction targets may be needed in the near future. The project has an opening (or horizon) year of 2021. Recent expert guidance from the Association of Environmental Professionals (AEP) (2016) recommends that projects should be evaluated against the next statewide milestone target after the project opening (or buildout). SB 32 statutorily established the 2030 target, which is the next statewide milestone target by which project-related emissions are compared.

While there is currently no adopted statewide GHG reduction plan or framework thereof that extends beyond 2020, ARB has recently released its Draft 2017 Scoping Plan Update, which outlines the State's proposed framework for meeting the 2030 target set by SB 32. The Draft 2017 Scoping Plan Update, along with other statewide plans that aim to reduce emission from various sectors for the economy (e.g., the Sustainable Freight Action Plan), have shown the State's interest in adopting regulatory programs and frameworks to support meeting statewide post-2020 reduction goals. Meeting the ambitious targets in SB 32, as well as the 2050 target in EO S-03-05, will require substantial effort at the state, regional, and local levels. Lacking a formally adopted post-2020 plan, AEP (2015, 2016) recommends that CEQA GHG analyses evaluate project emissions in light of the trajectory of State climate change legislation and assess their "substantial progress" toward achieving longer-term reduction targets identified in available plans (e.g., CAPs), legislation, or executive orders. The best measure is thus progress toward long-range targets, and not necessarily meeting milestone targets many years in the future, such as for 2050, along with consistency with the overall framework of draft reductions plans, including the Draft 2017 Scoping Plan Update. Moreover, while there are currently no adopted significance thresholds for analyzing post-2020 emissions for development projects in California, the updated Scoping Plan does recommend that

local governments aim to achieve a community-wide goal of no more than 6 MTCO₂e per capita by 2030 and no more than 2 MTCO₂e per capita by 2050. While these thresholds are neither adopted nor explicitly relevant to the proposed project, particularly because these recommendations apply to communities with a mixture of residential and commercial uses, this does indicate ARB's overall intent of highlighting and promoting efficiency.

Threshold Approach

As discussed above, there are multiple potential thresholds and methodologies for evaluating project-level GHG emissions consistent with CEQA, depending on the circumstances of a given project. While 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.

Although the project would not be operational by 2020, the District's CAP¹⁸ can be used to help benchmark performance in evaluating consistency of the project with the 2020 statewide and District-wide reduction targets. Use of 2020 as a target or milestone year for GHG emissions reductions as a significance criterion pursuant to AB 32 is widely employed and was further validated in *Newhall Ranch* for projects with 2020 or pre-2020 timelines (AEP 2016). Moreover, year 2020 aligns with the timeline set forth in both AB 32 and the District's CAP.

The project has an opening year of 2021.¹⁹ Recent expert guidance from AEP (2016) recommends that a project's conditions in its opening or horizon year be evaluated against thresholds to determine significance. AEP also recommends that projects should be evaluated against the next statewide milestone target after the project horizon, which in this case would be 2030 and which is set by both EO B-30-15 and SB 32. Moreover, SB 32 statutorily establishes the 2030 target and, as such, year 2030 marks the next statutory statewide milestone target to which project-related emissions are to be compared. Consequently, the recommended approach described below is to analyze the proposed project's GHG emissions for both the Opening Year 2021 and 2030 timeframes. The analysis also considers emissions under 2050 conditions, consistent with the trajectory of statewide climate change planning. While the State's 2050 GHG target outlined under EO S-3-05 has not been legislatively adopted, it is used as an indicator for long-term emissions reduction progress and is evaluated as it relates to the project's impacts for the 2050 time horizon.

Based on the available threshold concepts recommended by air districts or other lead agencies and recent case law, the thresholds of significance that will be applied to the proposed project's GHG emissions for both the 2020 and post-2020 periods are as follows.

- For **2021**, impacts from the project's GHG emissions would be considered less than significant if the project is found to:
 - (1) achieve a 42% recreational boating-specific GHG emissions reduction target and 54% lodging-specific GHG emissions reduction target (equivalent to a GHG emissions efficiency of 12.91 MTCO₂e per room), and
 - (2) comply with regulatory programs outlined in the Scoping Plan and adopted by ARB or other California agencies.

¹⁸ The District's CAP is a qualified reduction plan per the requirements of State CEQA Guidelines Section 15183.5 through year 2020.

¹⁹ AEP uses the term "horizon year" rather than "buildout year" or "opening year"; however, these terms are synonymous.

The analysis for 2021 is both quantitative with respect to the CAP and AB 32 consistency and qualitative with respect to compliance with the CAP's measures and regulatory programs outlined in the Scoping Plan and adopted by ARB or other California agencies. The analysis for compliance with regulatory programs only applies to the individual area addressed by the regulatory program. Project emissions are compared to unmitigated levels in determining consistency with CAP reduction targets. If the project (1) results in a 42% recreational boating-specific GHG emissions reduction target and 54% lodging-specific GHG emissions reduction target, which have been extrapolated from the 2020 percentage reductions for each sector pursuant to the District's CAP, and (2) will implement regulatory programs adopted by ARB or other agencies to reduce GHG emissions, then the project's cumulative contribution of GHG emissions would be considered less than significant for the period between 2021 and 2030. Conversely, if the project is determined to be inconsistent with the reduction targets or will not implement regulatory programs adopted by ARB or other State agencies to reduce GHG emissions, then the project's cumulative contribution of GHG emissions would be considered significant and feasible mitigation measures are required.

- For **2030** and **2050**, impacts from the project on GHG emissions would be less than significant if the project is found to be:
 - (1) consistent with the State's overall reduction targets (including SB 32 and EO S-03-05) for 2030 and 2050, and
 - (2) compliant with regulatory programs adopted by ARB or other California agencies for 2030 and 2050.

Based on the available threshold concepts recommended by expert agencies and the "substantial progress" approach, the analysis for the post-2020 time period is both quantitative with respect to consistency with long-term reduction targets, which are District specific and were estimated by calculating the downward GHG emission percentage reduction needed to meet 2030 (SB 32) and 2050 (EO S-03-05) goals using the CAP's 2020 GHG emission target for each sector, and qualitative with respect to compliance with the measures and regulatory programs outlined, adopted, or proposed by ARB or other California agencies. Project emissions are compared to levels without mitigation in determining consistency with the State's overall reduction targets for the post-2020 period.

Pursuant to SB 32 and EO S-3-05, the statewide targets for the reduction of GHG emissions are the 2030 (40% below 1990 levels) and 2050 (80% below 1990 levels) reduction targets. To reach the 2030 target of 40% below 1990 emissions levels while accounting for lodging growth by 2030, the District's hotel sector will need to increase efficiency to 6.3 MTCO_{2e}/room on Tidelands (74,402 MTCO_{2e}/11,880 rooms). This translates to a 77% improvement District-wide over 2030 projections. With respect to the District, recreational boating emissions would need to be reduced by 66% below 2030 projections to achieve the requisite statewide reductions outlined under SB 32. Achieving the 2050 EO S-3-05 target while accounting for activity growth by 2050 would require the hotel sector to increase efficiency to 1.4 MTCO_{2e}/room on Tidelands (24,801 MTCO_{2e}/17,786 rooms). This translates to a 95% District-wide improvement over 2050 BAU. Specific to the District, recreational boating emissions would need to be reduced by 90% relative 2050 BAU. Table 4.6-7 summarizes the 2020 and post-2020 reduction targets used in the quantitative analysis.

Table 4.6-7. GHG Reduction Targets by Emission Sector

Emission Sector	2021–2030 Target	2030 Target	2050 Target
Lodging Uses	54% below 2020 BAU of 28 MTCO ₂ e per room or a GHG emission efficiency of 12.9 MTCO ₂ e per room ¹	77% below 2030 BAU of 28 MTCO ₂ e per room or a GHG emission efficiency of 6.3 MTCO ₂ e per room ²	95% below 2050 BAU of 28 MTCO ₂ e per room or a GHG emission efficiency of 1.4 MTCO ₂ e per room ³
Recreational Boating	42% below 2020 BAU ⁴	66% below 2030 BAU ⁵	90% below 2050 BAU ⁶

Source: See technical threshold memorandum in Appendix D.

Notes:

The reduction from BAU is based on information within the District’s CAP, which takes into consideration location and the type of development.

¹ 2021 BAU emissions for the lodging sector are 257,882 MTCO₂e.

² 2030 BAU emissions for the lodging sector are 330,154 MTCO₂e.

³ 2050 BAU emissions for the lodging sector are 490,758 MTCO₂e.

⁴ 2021 BAU emissions for the recreational boating sector are 119,187 MTCO₂e.

⁵ 2030 BAU emissions for the recreational boating sector are 127,598 MTCO₂e.

⁶ 2050 BAU emissions for the recreational boating sector are 145,477 MTCO₂e.

Feasible mitigation measures have been identified for 2021, 2030, and 2050 timeframes. For each timeframe, mitigation measures include implementation of appropriate measures presented in the CAP, as well as independent mitigation measures.

Note that, consistent with established protocols and published guidance from other lead agencies and air districts, construction emissions are amortized over the typical operational life of a project and added to annual operational emissions. In this case, the operational life of the landside portion of the project is the duration of that lease, which is 66 years, while the operational life of the waterside (marina) portion of the project is the duration of that lease, which is 40 years. The majority of guidance and protocols has suggested a 20- or 30-year project life for typical development projects, and while the operational life of the proposed project is much longer, assuming a shorter operational duration allows for a more conservative analysis in that construction emissions are divided by a smaller number. In this case, construction GHG emissions are amortized over a 20-year project life to ensure a conservative analysis consistent with guidance and protocols.

Climate Change – Sea-Level Rise, Flooding, and Storm Surges

There have been recent court cases that have concluded that an EIR need not evaluate the environment’s effect on a project, which has been referred to as “Reverse CEQA.”²⁰ In one case directly discussing the issue of SLR, the California Second District Court of Appeal has held that while an EIR must analyze the environmental effects that may result from a project, an EIR is not required to examine the effects of the environment, such as SLR, 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

²⁰See *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).

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.

Although the California Supreme Court denied review of the *Ballona* decision,²¹ 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 SLR directly or in the context of compliance with the CCA. Additionally, with respect to *Ballona*, 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.²²

As such, CEQA does not direct agencies to analyze the environment's effects on a project, but does require an analysis where a project would potentially exacerbate environmental hazards or conditions. As such, the analysis provided within this section focuses on the project's potential to exacerbate the 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?

While it is uncertain whether an analysis of SLR's impacts on the project are required under *California Building Industry Association v. Bay Area Quality Management District*, the project would emit GHG emissions, which on a cumulative level contribute to climate change and hence SLR, flooding, and storm surges. Moreover, the project site is within the Coastal Zone and several CCA policies require protection of coastal resources from SLR and the impacts of climate change. EO S-13-08 also requires CCC considers the potential impacts of SLR on a proposed project in determining consistency with the CCA and the 2015 adopted Sea Level Rise Policy Guidance. The Policy Guidance provides an overview of the best available science on SLR and a recommended methodology for

²¹On March 21, 2012, the California Supreme Court denied case review and depublishation requests submitted by the Natural Resources Defense Council.

²² 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 only of a project's effect on the environment, not the environment's effects on project users. However, none of these sections apply here, as the proposed project consists of hotels, commercial uses, and a marina expansion.

addressing SLR in CCC planning and regulatory actions (CCC 2015). Consistency with the CCA and impacts of SLR, flooding, and storm surges are addressed in Section 4.9, *Land Use and Planning*, of this Draft EIR.

4.6.4.3 Project Impacts and Mitigation Measures

Threshold 1: For 2021, the project (1) would not be consistent with the District CAP, including the 12.9 MTCO₂e per room and 54% recreational boating-specific GHG emissions reduction target and (2) would not be in compliance with plans, policies, and regulatory programs outlined in the District's CAP, the Scoping Plan, and other plans, policies, and regulatory programs adopted by ARB for the purpose of reducing the emissions of GHGs.

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. As noted in Section 4.6.4.1, *Methodology*, landside emissions include motor vehicle trip generation, electricity consumption, combustion of natural gas for space and water heating, water consumption, and wastewater and waste generation, while waterside emissions include the existing ferry services and additional slips that would expand recreational boating opportunities, including yacht cold ironing.

Construction

Construction of the proposed project would result in GHG emissions through the use of heavy-duty construction equipment, construction workers' vehicle trips, and truck haul and material delivery trips. Table 4.6-8 shows that project construction would generate approximately 4,170 MTCO₂e over the projected 2.5-year construction period. This is equivalent to the emissions of 893 passenger vehicles for a single year (EPA 2015). As described above, total construction emissions are amortized over a 20-year duration and would equate to approximately 208 MTCO₂e per year. Consistent with industry best practices, amortized emissions are added to operational landside emissions before mitigation in Table 4.6-9 and operational landside emissions after mitigation in Table 4.6-14.

Table 4.6-8. Estimate of Construction GHG Emissions (total metric tons)

Emission Source	CO₂e
Phase 1- Mobilization and Site Preparation	
Mobilization/Demolition	26
Dewatering/Shoring	22
Phase 2 – Market-Rate Hotel Tower, Meeting Areas, and Parking Structure	
Excavation and Foundation	946
Structural Frame	601
Exterior Closure and Roofing	403
Interior Rough-In (Elev./MEP/Framing)	145
Interior Construction/Finishes	261
MEP Systems	289
Phase Completion Work	60
Phase 3 – Lower-Cost Visitor-Serving Hotel	
Foundations	39
Structural Frame	80
Exterior Closure	109
Interior Construction/Finishes	137
Phase Completion Work	14
Phase 4 - Site Work	
Offsite Demolition/Grading/Utilities	191
Site Improvements	218
Phase 5 – Waterside Work	
Marina Construction (Phases I and II)	630
Total Construction	4,170
Annual Total (Amortized over 20 years)	208
Note: Totals may not add exactly due to rounding.	
Source: Appendix D.	

Operation

Operation of the proposed project would result in GHG emissions associated with both the landside and waterside components of the project. As discussed in Section 4.6.4.1, separate thresholds were calculated for each component. As such, emissions from each are analyzed separately.

The landside component 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 component would result in GHG emissions associated with continuing the operation of existing ferry service and additional recreational boating activity associated with the additional 50 slips. A detailed description of the methodology and activity levels assumed in the analysis is presented in Section 4.6.4.1 above.

Landside

Estimates of landside GHG emissions associated with Opening Year 2021 conditions as well as landside activity in 2030 and 2050 are presented in Table 4.6-9. The results include emission benefits achieved by statewide legislation designed to reduce GHG emissions (e.g., Pavley, RPS). Furthermore, the project's location in a downtown setting that is highly accessible for alternative forms of transportation, including mass transit and walking, would result in fewer and shorter vehicle trips than a "typical" land use project. The California Air Pollution Control Officers Association's (CAPCOA's) *Quantifying Greenhouse Gas Mitigation Measures* (CAPCOA 2010) document discusses the fact that projects in urban and infill settings intrinsically facilitate fewer and shorter trip lengths. In terms of reductions, mobile source VMT is reduced approximately 29.7% based on a combination of mobile source, water, and waste reduction calculation methodologies in *Quantifying Greenhouse Gas Mitigation Measures*. Table 4.6-9 presents emissions inclusive of these sustainability features, in addition to site location (VMT reductions). As shown in Table 4.6-9, the project's landside components would meet the efficiency target (MT per room) for 2021.

- Projects located near transit facilitate the use of transit by people traveling to or from the project site (see CAPCOA 2010 measure LUT-5). The use of transit results in a mode shift from passenger vehicles to transit. Based on the distance to the nearest transit station (assumed to be 12th & Imperial), the reduction for eligible trips is 11.2%. Note that eligible trips only include customer and worker passenger car trips, and do not include customer non-work trips that include periodic deliveries, trash pickup, etc. Customer non-work vehicles make up 17.9% total VMT, while the remaining 82.1% of VMT is associated with travel that is affected by transit proximity. The overall reduction associated with transit proximity is calculated to be 9.2% ($11.2\% \times 82.1\%$).
- Projects located in areas with walkable and connected streets facilitate a mode shift from passenger vehicles to pedestrian travel. The walkability of an area is a function of density of intersections in a specific area relative to average density assumed by the Institute of Transportation Engineers, which is 36 intersections per square mile (see CAPCOA 2010 measure LUT-8). For downtown, the number of intersections per square mile is estimated to be 175 assuming there are 300 intersections downtown and downtown is approximately 1.7 square miles. Again, only customer and worker passenger cars are affected (82.1% of VMT). Based on the equation presented in CAPCOA 2010, the reduction equates to 38%, but CAPCOA limits the reduction to 21.3%, which is assumed herein.
- Projects located near bicycle facilities facility encourage alternative mode use. As noted in CAPCOA 2010, the Center for Clean Air Policy attributes a 1% to 5% reduction associated with comprehensive bicycle programs (see CAPCOA 2010 measures LUT-8 and SDT-6), while another report allots 2.5% reduction for all bicycle-related measures, with $\frac{1}{4}$ of that reduction associated with location near bicycle facilities alone ($2.5\% \times \frac{1}{4} = 0.625\%$). Based on information in CAPCOA 2010, the reduction equates to 0.625% of all VMT.

Projects that install accessible electric vehicle parking and charging attract zero emission vehicles. Based on CAPCOA and the Sacramento Metropolitan Air Quality Management District, a minimum reduction of 0.5% reduction in emissions (and VMT) was assumed.

Table 4.6-9. Estimate of Hotel-Related GHG Emissions with State Measures (metric tons per year)

Element	Source	2021	2030	2050
Market-Rate Hotel Tower	Visitors (Vehicles)	6,967	5,395	5,042
	Electricity	2,091	1,927	1,927
	Natural Gas	1,756	1,756	1,756
	Water	122	112	112
	Wastewater	1	1	1
	Solid Waste	207	0207	207
	<i>Subtotal</i>	<i>11,144</i>	<i>9,398</i>	<i>9,044</i>
Lower-Cost Visitor-Serving Hotel	Visitors (Vehicles)	514	398	372
	Electricity	700	645	645
	Natural Gas	561	561	561
	Water	23	21	21
	Wastewater	<1	<1	<1
	Solid Waste	62	62	62
	<i>Subtotal</i>	<i>1,860</i>	<i>1,687</i>	<i>1,661</i>
Marina (Buildings Only) ²	Visitors (Vehicles)	225	174	162
	Electricity	14	13	13
	Natural Gas	568	568	568
	Water	<1	<1	<1
	Wastewater	<1	<1	<1
	Solid Waste	93	93	93
	<i>Subtotal</i>	<i>901</i>	<i>848</i>	<i>836</i>
Public Open Space	Visitors (Vehicles)	62	48	44
	<i>Subtotal</i>	<i>62</i>	<i>48</i>	<i>44</i>
Total Operations		13,996	11,981	11,587
<i>Amortized Construction</i>		<i>208</i>	<i>208</i>	<i>208</i>
<i>Reductions</i>	<i>VMT Reductions from Site Location and Other Project Features</i>	<i>-2,098</i>	<i>-1,608</i>	<i>-1,482</i>
Total Project Landside		12,076	10,582	10,313
Existing Landside Annual ¹		625	625	625
Net New Over Existing		11,452	9,957	9,688
Service Population (rooms)		1,415	1,415	1,415
Project Efficiency (MT/room)		8.1	7.0	6.8
Significance Threshold (MT/room)		12.9	6.3	1.4
<i>Exceed Target?</i>		<i>No</i>	<i>Yes</i>	<i>Yes</i>

Source: ICF Emissions Modeling (Appendix D).

¹ Existing GHG emissions shown in Table 4.6-6.² Marina electricity consumption associated with recreating boating cold ironing is included in the waterside calculations in Table 4.6-10.

Notes: Totals may not add exactly due to rounding.

Waterside

Waterside GHG emissions associated with the entire marina expansion in Opening Year 2021 as well as 2030 and 2050 are presented in Table 4.6-10. As shown in Table 4.6-10, the project would not meet the percentage reductions for 2021 and this would be a significant impact (**Impact-GHG-1**). The results include emission benefits achieved by replacing the ferry engine prior to opening day (due to scheduled replacement per the ARB's Harbor Craft Regulation in 2018) and the effects of statewide legislation designed to reduce GHG emissions (e.g., LCFS, RPS). Unlike the landside portion discussed above, which can take credit for emissions benefits associated with the project location in a downtown setting, there are no similar reductions associated with recreational boating, nor has there been much action at the state level to reduce emissions from recreational boating. The emissions shown in Table 4.6-10 thus only include those available and relevant reductions (e.g., ferry engine upgrade, low carbon fuels, and RPS), and no further reductions associated with project design and state actions are available. Note that this analysis assumes Phase I and Phase II marina expansion are both operational in 2021.

Table 4.6-10. Estimate of Project-Related Waterside GHG Emissions at the Project Site with Design Features and State Measures (metric tons per year)

Element	Source	2021	2030	2050
Business as Usual ¹	Ferry Service	539	539	539
	Recreational Boating	7,315	7,315	7,315
	<i>Waterside BAU Total</i>	<i>7,854</i>	<i>7,854</i>	<i>7,854</i>
Project Conditions ²	Ferry Service	287	287	287
	Recreational Boating	5,686	4,943	4,943
	<i>Waterside Project Total</i>	<i>5,973</i>	<i>5,230</i>	<i>5,230</i>
Percentage Reduction with Project Design		24%	33%	33%
Reduction Target		42%	66%	90%
<i>Exceed Significant Threshold?</i>		<i>Yes</i>	<i>Yes</i>	<i>Yes</i>

¹ BAU includes the larger existing ferry, the same BAU electricity emission factor assumed in the CAP, and no LCFS reductions. BAU is specific to the site and geographic location of the Port.

² Project conditions are specific to the site and geographic location of the Port, and include the smaller new ferry, estimated SDG&E emission factor in 2021, estimated SDG&E emission factor in 2030 and 2050 per SB 350, and LCFS adjustments (similar to the 2020 CAP).

2021 – Project Consistency with CAP

Project consistency with applicable CAP measures is discussed in Table 4.6-11. Before mitigation, the proposed project would not be consistent with the CAP because it would not implement all of the applicable reduction measures. Moreover, while the landside portion would meet the efficiency target, waterside activities would result in emissions that do not meet the prescribed recreational boating-related reduction target prior to mitigation.

Consequently, the proposed project would be required to implement mitigation measures to ensure consistency with the CAP. These measures include diesel reduction measures enforced through **MM-GHG-1**; project features, which would be enforced through **MM-GHG-2**; specific CAP measures, which would be enforced through **MM-GHG-3**; and renewable energy and/or offsets, which would be enforced through **MM-GHG-4**. Moreover, all of the project's mitigation measures and its features

will be conditions of approval in the proposed Coastal Development Permit.

With implementation of **MM-GHG-1** through **MM-GHG-4**, the proposed project would meet the reduction targets required by the CAP, as shown in Tables 4.6-13 and 4.6-14. Therefore, the proposed project would be consistent with the CAP.

2021 – Project Consistency with Regulations and Regulatory Programs Adopted by ARB or Other State Agencies

As shown in Table 4.2-11, the proposed project would implement several applicable measures from the Scoping Plan, as well as other measures being implemented by ARB. However, without mitigation, the project would ultimately be inconsistent with some state measures (**Impact-GHG-1**). When coupled with project design and mitigation measures (**MM-GHG-1** through **MM-GHG-4**), each of which are proposed to be incorporated as conditions of approval in the Coastal Development Permit for the project to ensure implementation, the project would be consistent with AB 32's Scoping Plan and other ARB measures.

Table 4.6-11. Project Consistency with Applicable Port CAP Measures for 2021

No.	Measure Description	Project Consistency Analysis
TA1	Support and promote the use of alternate fueled, electric or hybrid Port owned vehicles and vessels (also includes cargo handling equipment, terminal and stationary equipment).	Consistent Prior to Mitigation. 100% of yachts would use shore power while at berth. There is no ARB requirement for recreational boat shore power, so this goes above and beyond requirements.
TA2	Support and promote non-Port owned vehicles and vessels to achieve the lowest emissions possible, using a mix of alternative fueled, electric or hybrid technology.	Consistent After Mitigation. MM-GHG-3 requires charging stations to support electric vehicles to be installed in the parking garage. The parking structure will also accommodate carpools, public vans, and other forms of mass transit by providing preferential parking for these uses. Furthermore, as a project feature, additional yachts that berth long term will utilize shore power for all their power needs.
TA3	Implement emissions reduction strategies at loading docks through electrification of docks or idling-reduction systems for use while at loading docks	Consistent After Mitigation. MM-GHG-1 requires all commercial vehicles during operations, including delivery trucks, to limit idling times to 3 minutes, beyond that required by State law. Moreover, as a feature of the project, yachts would use grid-based shore power for electrical needs, which reduces GHG emissions and provides a co-benefit of reducing criteria pollutant and TAC emissions.
TA4	Electrification of marinas	Consistent Prior to Mitigation. See TA1.

No.	Measure Description	Project Consistency Analysis
TR1	Implement traffic and roadway management strategies to improve mobility and efficiency, and reduce associated emissions on general roadways within Port tidelands.	Consistent After Mitigation. The hotel entrance accommodates three lanes of vehicle traffic off the park entrance road in order to avoid affecting street access to the Embarcadero Marina Park South. The three valet lanes are designed to handle peak event hotel traffic without affecting local traffic circulation. The loading and offloading area is located off Convention Way to avoid affecting existing traffic patterns. MM-TRA-8 (Section 4.12, <i>Transportation, Circulation, and Parking</i>) requires a parking management plan during project operations that improves mobility and efficiency but reduces vehicle trips and parking demand.
TR3	Vehicle Idling: Enforce state idling laws for commercial vehicles, including delivery and construction vehicles.	Consistent After Mitigation. See TA3.
TL1	Promote greater linkage between land uses and transit, as well as other modes of transportation.	Consistent After Mitigation. See MM-TRA-8 (Section 4.12, <i>Transportation, Circulation, and Parking</i>). Employees would receive economic incentives to use mass transit such as monthly trolley passes. The nearest trolley station is just across Harbor Drive at the Fifth Avenue intersection. Furthermore, project design facilitates greater use of transit than typical hotels in the region, which reduces trip lengths and overall vehicle-related emissions.
TL2	Increase bicycling and walking opportunities (safe infrastructure to priority destinations) as an alternative to driving.	Consistent Prior to Mitigation. The proposed project includes adjoining cafés and shops that can be accessed by both hotels through the Embarcadero Promenade. Guests can also walk to the San Diego Convention Center using a new public access bridge. The project's new public access linkages also would connect to new public viewing terraces adjoining the proposed market-rate hotel tower. Wayfinding guideposts providing the public with a clear and logical course of travel between the waterfronts, the Gaslamp Quarter, and the Ballpark District would also be provided. Bicycle parking would be available on site. MM-GHG-3 requires the project to provide bicycle parking.
TL3	Restrict the location of drive-through businesses.	Consistent Prior to Mitigation. The cafés and shops do not provide drive-through access and are easily accessed by pedestrians on the Embarcadero Promenade.

No.	Measure Description	Project Consistency Analysis
TP3	Implement trip reduction programs, such as: ride sharing, telecommuting and alternative work schedules, commute trip reduction marketing, and employer-sponsored vanpool/shuttle	Consistent After Mitigation. The garage would include priority spaces for carpooling. MM-GHG-2 and MM-TRA-8 (Section 4.12, <i>Transportation, Circulation, and Parking</i>) require the project proponent to promote and encourage employees to use ride sharing and bus and transit.
EB1	Establish green building standards and/or policy for new construction	Consistent After Mitigation. The project would achieve Leadership in Energy and Environmental Design (LEED) Silver certification, as described in MM-GHG-3.
EB3	Develop energy efficiency performance standards that achieve a greater reduction in energy use than otherwise required by state law	Consistent After Mitigation. MM-GHG-3 requires the project to incorporate energy efficiency design features striving to exceed 2013 Title 24 California Building Energy Efficiency Standards. Measures that may be implemented include: high-performance glazing; increased insulation; cool roof; high-efficiency heating, ventilating, and air condition systems and controls; programmable thermostats; variable frequency drives; and a high-efficiency lighting and control system.
EB6	Replace light fixtures in non-Port facilities with lower energy bulbs such as fluorescent, LEDs, or CFLs.	Consistent After Mitigation. MM-GHG-3 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.
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.	Consistent After Mitigation. The project would install a 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 rooftop public plaza and park area to minimize heat island effect, and integrated green roof. See MM-GHG-3.
EH2	Urban Forestry Management: Develop an Urban Forestry Program to consolidate policies and ordinances regarding tree planting, maintenance, and removal.	Consistent Prior to Mitigation. The project would install approximately 75 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.	Consistent Prior to Mitigation. The proposed project includes a stormwater retention and filtration system, drought-tolerant planting, and reclaimed water irrigation. Landscaping and structures would be designed to recapture and permeable surfaces would be used in place of concrete or asphalt where feasible.

No.	Measure Description	Project Consistency Analysis
WR1	Recycled water use. Establish programs and policies to increase the capture and use of recycled water	Consistent Prior to Mitigation. Reclaimed water would be used for irrigation.
WC1	Adopt a Water Conservation Strategy	Consistent After Mitigation. 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) into the design. With these measures the project will be able to achieve a minimum 20% water reduction.
SW1	Increase the diversion of solid waste from landfill disposal.	Consistent After Mitigation. MM-GHG-3 requires the proposed project to implement onsite recycling.
SW2	Adopt a Construction and Demolition Recycling Ordinance	Consistent After Mitigation. MM-GHG-2 requires the project to divert construction and demolition debris from disposal in landfills and incineration facilities by 65%. Construction would also use recycled, regional, and rapidly renewable materials where appropriate.
MP1	Increase public awareness of climate change and climate protection challenges, and support community reductions of GHG emissions through coordinated, creative public education and outreach, and recognition of achievements.	Consistent Prior to Mitigation. The project would provide education on sustainability and Bay conservation using various media.
MP4	Require Port and encourage Port tenants to purchase goods and services that embody or create fewer GHG emissions	Consistent Prior to Mitigation. The project would incorporate a lower-GHG type of concrete in order to address climate change conditions

Source: District 2013.

Notes:

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.

Table 4.6-12. Project Consistency with AB 32 Scoping Plan and Other ARB Measures for 2020

No.	Measure Description	Project Consistency Analysis
Scoping Plan Measures		
T-1	Advanced Clean Cars	Consistent Prior to Mitigation. State program that requires no action at the local or project level. Benefits to project-related employee and visitor car travel will be realized.
T-2	Low Carbon Fuel Standard	Consistent Prior to Mitigation. State program that requires no action at the local or project level. Benefits will be realized.
T-4	Vehicle Efficiency Measures 1. Tire Pressure 2. Fuel Efficiency Tire Program 3. Low Friction Oil 4. Solar Reflective Automotive Paint and Window Glazing	Consistent Prior to Mitigation. State program that requires no action at the local or project level. Benefits to project-related car and delivery truck travel will be realized.
T-7	Heavy-Duty Vehicle GHG Emission Reduction 1. Tractor-Trailer GHG Regulation 2. Heavy Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I)	Consistent Prior to Mitigation. State and federal programs that require no action at the local or project level. Benefits to project-related delivery truck travel will be realized.
E-3	33 Percent Renewable Portfolio Standard	Consistent Prior to Mitigation. State program that requires no action at the local or project level. Benefits to project-related electricity consumption will be realized.
W-1	Water Use Efficiency	Consistent Prior to Mitigation. The project proposes only minimal water use associated with new employees. State program that requires no action at the local or project level. Benefits will be realized at the project level.
Other ARB Measures		
-	Pavley (AB 1493)	Consistent Prior to Mitigation. See T-1 and T-2. State program that requires no action at the local or project level. Benefits to project-related employee and visitor car travel will be realized.
-	Heavy Duty (Tractor-Trailer) GHG Regulation	Consistent Prior to Mitigation. See T-7. State and federal programs that require no action at the local or project level. Benefits to project-related delivery truck travel will be realized.
Source: ARB 2008; ARB 2014a.		
Notes		
T = Transportation Measures; E = Electricity Measures; W = Water Measures		

Consistency with Other Regulations

The District's Clean Air Program, one of six key areas addressed by the District's Green Port Program, focuses on initiatives to reduce air pollution from Port operations and includes various strategies that the District is employing to reduce GHG emissions from its largest sources. The District, through its Green Port Program, will continue to implement actions to reduce GHG emissions in the future and the project would implement the relevant Green Port Program and Clean

Air Program control measures, including electrifying marinas and ensuring building are designed to include energy and water efficiency design features, as well as through implementation of the CAP. The project is consistent with the District's Green Port and Clean Air programs because it would comply with current and potential future ARB regulations developed and included as part of the Green Port Program and Clean Air Program and assumed in the CAP, including building resource efficiency and marina electrification. Therefore, the project is consistent with both the overarching Green Port Program and the more specific Clean Air Program.

Level of Significance Prior to Mitigation

For Opening Year 2021, the project would not be consistent with the District CAP, specifically the recreational boating GHG emissions reduction target and reduction measures specified therein, and would only partially comply with plans, policies, and regulatory programs outlined in the Scoping Plan and adopted by ARB or other California agencies for the purpose of reducing the emissions of GHGs. Potentially significant impact(s) include:

Impact-GHG-1: Inconsistency with District Climate Action Plan and Only Partial Consistency with Applicable GHG Reduction Plans, Policies, and Regulatory Programs through 2021. Project GHG emissions during combined project construction and operational activities would be inconsistent with the CAP because the project would not meet the performance benchmark for recreational boating (i.e., 42% reduction) and would only partially comply with plans, policies, and regulatory programs outlined in the District's CAP, the Scoping Plan, and other plans, policies, and regulatory programs adopted by ARB for the purpose of reducing the emissions of GHGs.

Mitigation Measures

For **Impact-GHG-1:**

MM-GHG-1: Implement Diesel Emission-Reduction Measures During Project Construction.

The project proponent shall implement the following measures during project construction and, where specified below, shall submit reports to the District's Development Services Department for its review and approval, evidencing compliance.

- i. The project proponent shall limit all equipment and delivery truck idling times by shutting down equipment 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 quarterly reports of violators to the District. This measure shall be enforced by the hotel and marina supervisors, and repeat violators shall be subject to penalties pursuant to California airborne toxics control measure 13 California Code of Regulations Section 2485. The project proponent shall submit evidence of the use of diesel reduction measures to the District's Development Services Department through annual reporting, with the first report due 1 year from the date of project completion.
- ii. 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 and 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 by the certified mechanic of the condition of the construction and operations vehicles and equipment to the District's Development Services Department prior to commencement of their use.

MM-GHG-2: Comply with San Diego Unified Port District Climate Action Plan Measures.

Effective opening day, the project proponent shall implement the following measures.

- No commercial drive-through shall be implemented.
- Reduce indoor water consumption by 20% lower than baseline buildings (defined by Leadership in Energy and Environmental Design [LEED] as indoor water use after meeting Energy Policy Act of 1992 fixture performance requirements) through use of low-flow fixtures in all hotel room and common area bathrooms.
- Compliance with Assembly Bill 939 and the City of San Diego's Recycling Ordinance shall be mandatory and shall include recycling at least 50% of solid waste; compliance with the City of San Diego's Construction and Demolition Debris Deposit Ordinance 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.
- Use only fluorescent, Light-Emitting Diodes (LEDs), Compact Fluorescent Lights (CFLs), 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.
- Implement a parking management plan that incentivizes transit, provides bike racks and a bike share station, and provides shuttle programs to reduce worker trips and parking demand, as described in **MM-TRA-8**.

By December 31, 2029, the project proponent shall implement and have operational the following measure.

- Install 29 electric car charging stations in the parking garage.

MM-GHG-3: Implement Sustainability Features during Project Operations. Prior to approval of the final design plans, the project proponent shall list all GHG-reducing measures and shall demonstrate in the plans where these measures will be located. The following shall be implemented by the project proponent. A report shall be submitted to the District's Development Services Department evidencing compliance. The project has registered its intent to achieve certification under the Leadership in Energy and Environmental Design (LEED) Green Building Rating Systems with the Green Building Certification Institute.

The project proponent has proposed various sustainable design features equivalent to LEED v.3.0 Silver level. The following is a list of proposed sustainability measures that will be required and incorporated into the Coastal Development Permit for the project.

- Incorporate indoor water-reduction measures, including high-efficiency toilets, high-efficiency urinals, low-flow faucets, and low-flow showers (as applicable) into the design of all hotel room and common area bathrooms. The project shall achieve a minimum 20% water reduction compared to baseline buildings (defined by LEED as indoor water use after meeting Energy Policy Act of 1992 fixture performance requirements).

- Install Energy Star rated appliances.
- Install a high-efficiency lighting system that takes advantage of natural daylighting, augmented by daylighting controls and occupancy sensors that turn off the lights in unoccupied spaces.
- 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 a “Cool Roof” with an R value of 30 or better.
- Install sun shading devices as appropriate.
- Install a stormwater retention and filtration system.
- Install low-water plantings and drip irrigation, and minimize domestic water demand from the City system for landscaping purposes.
- Implement onsite recycling.
- Install a high-performance chiller/heating plant.
- Work with San Diego Gas & Electric’s “Savings by Design” program during the design and construction process and incorporate recommended suggestions where feasible.
- Utilize low-volatile organic compound materials to improve indoor air quality.
- Provide bicycle parking for 24 bicycles.
- Integrate light-colored paving at the rooftop plaza and park area to minimize the heat island effect.
- Provide education for hotel and marina guests and visitors on sustainability and Bay conservation using various media.
- Divert construction and demolition debris from disposal in landfills and incineration facilities by 65%.
- Use recycled, regional, and/or rapidly renewable materials where feasible.
- Provide preferential carpool spaces within the proposed parking structure.

MM-GHG-4: Implement a Renewable Energy Project on Site, on Tidelands, or Within Offsite Tidelands Adjacent to Community or Member City, or Purchase the Equivalent Greenhouse Gas Offsets from a California Air Resources Board Approved Registry or a Locally Approved Equivalent Program. To reach the waterside performance standard for 2021, the project proponent shall, in order of preference, considering availability of structures and feasibility, incorporate renewable energy (1) on the project site; (2) within the District’s jurisdiction; or (3) within the adjacent community or member city outside of the District’s jurisdiction. These three options may be combined with consideration to the preference described above. If construction of renewable energy projects does not satisfy the waterside performance standards, the project proponent shall purchase greenhouse gas reduction credits to achieve requisite reductions to meet the 2021 waterside reduction target. This requirement may include a micro-grid or similar type of energy management system to help distribute the loads and/or assist in energy storage. To meet the 2021 waterside reduction target, the renewable energy project must offset 1,382 MTCO_{2e} per year or 5,698 megawatt-hours per year

(MWh/year). The renewable energy project shall be constructed and operational prior to certificate of occupancy or the opening day for the waterside improvements.

In the event greenhouse gas offsets are purchased, these offsets must be from sources listed on the American Carbon Registry and/or the Climate Action Reserve (or any other such registry approved by the ARB). The selected option or a combination must achieve a total annual reduction of 1,382 MTCO₂e, which would amount to 12,435 MTCO₂e over 9 years (between 2021 and 2030).

Level of Significance after Mitigation

As shown in Table 4.6-13 and Table 4.6-14, **Impact-GHG-1** would be less than significant after implementation of **MM-GHG-1** through **MM-GHG-4** because the proposed project would reach its GHG reduction target of 42% for recreational boating and would be consistent with the AB 32 Scoping Plan and other related programs designed to reduce project GHG emissions.

MM-GHG-4 includes installation of solar panels on available rooftop space within the leasehold or off site but within the District's jurisdiction. It is assumed that minimal construction activities would be required and would consist of installing poles or infrastructure on the rooftops to mount the solar arrays, electrical connections to the existing grid, potential minor upgrades to the existing onsite electrical system (pending consultation with SDG&E), minor structural improvements to the buildings, and a few associated material deliveries for the solar hardware. Once operational, the solar arrays would not create any glare issues because they are designed and coated to absorb light, not reflect it, require very little maintenance, and in general would not cause any significant impacts on the environment. Therefore, environmental impacts associated with implementation of the solar option under **MM-GHG-4** would be less than significant.

Table 4.6-13. Estimate of Project-Related Landside GHG Emissions after Mitigation (metric tons per year)

Element	Source	2021	2030	2050
Market-Rate Hotel Tower	Visitors (Vehicles)	6,967	5,395	5,042
	Electricity	2,091	1,927	1,927
	Natural Gas	1,756	1,756	1,756
	Water	122	112	112
	Wastewater	1	1	1
	Solid Waste	207	0207	207
	<i>Subtotal</i>	<i>11,144</i>	<i>9,398</i>	<i>9,044</i>
Lower-Cost Visitor-Serving Hotel	Visitors (Vehicles)	514	398	372
	Electricity	700	645	645
	Natural Gas	561	561	561
	Water	23	21	21
	Wastewater	<1	<1	<1
	Solid Waste	62	62	62
	<i>Subtotal</i>	<i>1,860</i>	<i>1,687</i>	<i>1,661</i>

Element	Source	2021	2030	2050
Marina (Buildings Only) ¹	Visitors (Vehicles)	225	174	162
	Electricity	14	13	13
	Natural Gas	568	568	568
	Water	<1	<1	<1
	Wastewater	<1	<1	<1
	Solid Waste	93	93	93
	<i>Subtotal</i>	<i>901</i>	<i>848</i>	<i>836</i>
Public Open Space	Visitors (Vehicles)	62	48	44
	<i>Subtotal</i>	<i>62</i>	<i>48</i>	<i>44</i>
Total Operations		13,996	11,981	11,587
<i>Amortized Construction</i>		<i>208</i>	<i>208</i>	<i>208</i>
<i>Reductions</i> ²	<i>VMT Reductions from Design</i>	<i>-2,098</i>	<i>-1,608</i>	<i>-1,482</i>
	<i>MM-GHG-2/3 CAP and Sustainability Measures</i>	<i>-</i>	<i>-227</i>	<i>-227</i>
	<i>MM-GHG-4 PV/Offsets</i>	<i>--</i>	<i>-869</i>	<i>-7,489</i>
Total Project Landside		12,076	9,487	2,598
Existing Landside Annual ³		625	625	625
Net New Over Existing		11,452	8,862	1,973
Service Population (rooms)		1,415	1,415	1,415
Project Efficiency (MT/room)		8.1	6.3	1.4
Significance Threshold (MT/room)		12.9	6.3	1.4
<i>Exceed Target?</i>		<i>No</i>	<i>No</i>	<i>No</i>

Source: ICF Emissions Modeling (Appendix D).

¹ Marina electricity consumption associated with recreating boating cold ironing is included in the waterside calculations in Table 4.6-14.

² VMT Reductions from Design are the same as shown in Table 4.6-9.

³ Existing GHG emissions re shown in Table 4.6-6.

Note:

Totals may not add exactly due to rounding.

Table 4.6-14. Estimate of Project-Related Waterside GHG Emissions at the Project Site after Mitigation (metric tons per year)

Element	Source	2021	2030	2050
Business as Usual ¹	Ferry Service	539	539	539
	Recreational Boating	7,315	7,315	7,315
	<i>Waterside BAU Total</i>	<i>7,854</i>	<i>7,854</i>	<i>7,854</i>
Project Conditions ²	Ferry Service	287	287	287
	Recreational Boating	5,686	4,943	4,943
	<i>Waterside Project Subtotal</i>	<i>5,973</i>	<i>5,230</i>	<i>5,230</i>
<i>Reductions</i>	<i>MM-GHG-3 PV/Offsets</i>	<i>-1,382</i>	<i>-2,550</i>	<i>-4,447</i>
	<i>Waterside Project Total</i>	<i>4,591</i>	<i>2,680</i>	<i>784</i>
Percentage Reduction with Project Design and Mitigation		42%	66%	90%
Reduction Target		42%	66%	90%
<i>Exceed Target?</i>		<i>No</i>	<i>No</i>	<i>No</i>

¹ BAU includes the larger existing ferry, the same BAU electricity emission factor in the CAP, and no LCFS reductions. BAU is specific to the site and geographic location of the Port.

² Project conditions are specific to the site and geographic location of the Port, and include the smaller new ferry, projected SDG&E emission factor in 2021, estimated SDG&E emission factor in 2030 and 2050 per SB 350, and LCFS adjustments (similar to the 2020 CAP).

Threshold 2: For post-2020, the proposed project (1) would not parallel the State's overall reduction targets identified in SB 32 and EO S-03-05, and (2) would not be in compliance with plans, policies, and regulatory programs adopted by ARB or other California agencies for post-2020 for the purpose of reducing the emissions of GHGs.

Impact Discussion

The proposed project's GHG emissions before mitigation during the post-2020 timeframe is presented under Threshold 1 in Tables 4.6-9 (landside uses) and 4.6-10 (waterside uses), and GHG emissions after mitigation and reductions from site design during the post-2020 timeframe are presented under Threshold 1 in Tables 4.6-13 (landside uses) and 4.6-14 (waterside uses). Emissions from construction activities are presented under Threshold 1 in Table 4.6-8. The analysis for the post-2020 period, provided below, is based on the information contained on those pages.

Note that while the project Opening Year is 2021, the term "post-2020" refers to the 2030 and 2050 time frames. Furthermore, for purposes of analysis, it is assumed that construction would be finished prior to 2030. Emissions from construction are presented in Table 4.6-8 and are not discussed under this threshold.

Consistency with Post-2020 Reduction Targets and "Substantial Progress"

Although the District's CAP and ARB's adopted Scoping Plan mention some potential post-2020 strategies, as of the date this analysis was prepared, emission savings from these post-2020 strategies are not quantified. Moreover, although there has been activity at the legislative, executive, and judicial levels, including the recently released Draft 2017 Scoping Plan Update from ARB, there

are currently no adopted plans or measures that specifically prescribe how the ambitious post-2020 targets will be met. The State recently adopted SB 32, which adopts interim 2030 GHG targets consistent with EO B-30-15; AB 197, which supports its implementation; and AB 1383, which aims to reduce short-lived climate pollutants. Regardless, no plan to achieve these 2030 targets has been adopted by ARB or the District.

Various guidance and white paper documents are in circulation that discuss potential near- and long-term strategies to reduce emissions from all sources, including sources associated with the proposed project (e.g., electricity and recreational boats), and most recently ARB released the Draft 2017 Scoping Plan Update, which details the State's proposed strategy for achieving the 2030 target adopted with SB 32. The updated Scoping Plan includes various elements, including doubling energy efficiency savings, increasing LCFS from 10% to 18%, adding 4.2 million zero-emission vehicles on the road, implementing the Sustainable Freight Strategy, implementing a post-2020 Cap-and-Trade Program, reducing emission from refineries, and developing an Integrated Natural and Working Lands Action Plan to protect land-based carbon sink. However, because the Draft 2017 Scoping Plan Update has not been adopted as of this writing, the District's CAP, ARB's Scoping Plan First Update, ARB's 2030 Scoping Plan, and other State programs (e.g., ARB's Sustainable Freight Strategy) are some recent examples that include proposed, recommended, or adopted actions that will reduce emissions over the long term.

2020 to 2050 – Consistency with the District CAP

For proposed landside development (e.g., hotels and retail) and waterside development (e.g., expanded recreational marina), the CAP only accounts for land use development projects (e.g., hotels) that are projected to be built or implemented within the District's jurisdiction by 2020. However, waterside uses (e.g., recreational boating and commercial harbor craft [ferry activity]) in the CAP are accounted for assuming growth in activity consistent with the growth projections in ARB's OFFROAD 2007 model.

Therefore, like other GHG emissions-reduction plans, the CAP is not a "no growth" plan but instead accounts for continued growth of lodging and recreational boating operations in an efficient and sustainable manner, and the project would increase the capacity of lodging and recreational boating opportunities consistent with the growth projected in the CAP.

As the District's CAP was completed in 2013, it does include some strategies and shows some progress toward meeting post-2020 statewide targets and does prescribe a 25% reduction goal (below 2006 levels) for 2035; however, it does not include reduction measures to achieve a post-2020 target. Because the CAP did not estimate reductions from these strategies beyond 2020, emphasis is placed on consistency with the overarching goals of the CAP (to reduce GHG emissions) rather than the specific reductions attached to each strategy. Additionally, it is not considered a qualified GHG reduction plan for post-2020 purposes, as described in State CEQA Guidelines Section 15183.5; therefore, while the post-2020 analysis does rely on the growth assumptions and strategy for reducing emissions in the CAP, the post-2020 analysis does not rely solely on compliance with the CAP to determine whether the project's impacts would be cumulatively considerable for post-2020 GHG emissions. Prior to mitigation, the proposed project would not be entirely consistent with the post-2020 CAP (**Impact-GHG-2**). As noted in Table 4.6-15, however, once **MM-GHG-5** is incorporated, the project would be consistent with the CAP measures in the post-2020 period.

Table 4.6-15. Project Consistency with Port CAP Strategies Beyond 2020

No.	Strategy Description	Project Consistency Analysis
EA2	Implement on-site renewable energy generation policy for 2035 (solar power, wind power, methane recovery, wave power, etc.).	Consistent After Mitigation. The District has not yet developed an onsite renewable energy generation policy for 2035. However, MM-GHG-5 requires the project proponent to implement an onsite renewable energy project prior to 2030 and running through the remaining life of the project (i.e., beyond 2050), unless the system cannot be built in light of structural and operational constraints, in which case an offsite project would be built or GHG reduction credits purchased.
EA3	Implement on-site renewable energy generation policy for by 2050 (solar power, wind power, methane recovery, wave power etc.).	Consistent After Mitigation. See EA2. The District has not yet developed an onsite renewable energy generation policy for 2050. MM-GHG-5 requires the project proponent to implement an onsite renewable energy project by 2025 that would run through the remaining life of the project (i.e., beyond 2050), unless the system cannot be built in light of structural and operational constraints, in which case an offsite project would be built or GHG reduction credits purchased.
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 the years 2020, 2035 and 2050.	Consistent After Mitigation. See EA2 and EA3. MM-GHG-5 requires the project proponent to implement a renewable energy project by 2025 that would run through the remaining life of the project (i.e., beyond 2050), unless the system cannot be built in light of structural and operational constraints, in which case an offsite project would be built or GHG reduction credits purchased.
MP6	Pursue off-site GHG mitigation strategies.	Consistent After Mitigation. MM-GHG-5 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 use of renewable energy.
TE4	Promote best vehicle maintenance and operational best practices for Harbor Craft including routine engine monitoring.	Consistent Prior to Mitigation. The ferry operator is required to replace the ferry engines with smaller and more efficient engines prior to opening year, which will reduce fuel consumption and GHG emissions.

Source: District 2013.

Notes:

EA: Alternative Energy Generation; MP: Miscellaneous– Programs and Outreach; TE: Transportation

2020 to 2050 – Consistency with the State’s Overall Reduction Targets (Including SB 32 and EO S-03-05)

There are a number of studies that discuss potential mechanisms for limiting California’s economy-wide emissions to the equivalent of 40% below the 1990 level by 2030 and 80% below the 1990 level by 2050. For instance, ARB and other State agencies are developing GHG reduction scenarios for 2030 that would set the State on the course toward its 2050 GHG reduction goal (CEC 2015). Other studies include a report by the California Center for Science and Technology (2012), a California Department of Transportation report that discusses GHG emission reductions from the transportation sector alone (California Department of Transportation 2016), and a study published

in *Science* that analyzes the changes that will be required to reduce GHG emissions to 80% below 1990 levels by 2050 (Williams et al. 2012). In general, these studies reach similar conclusions. Deep reductions in GHG emissions can be achieved only with significant changes in electricity production, transportation fuels, and industrial processes (e.g., decarbonizing electricity production, electrifying transportation, implementing widespread adoption of low-carbon or no-carbon transportation fuels, electrifying non-transportation direct fuel uses, increasing energy efficiency, avoiding waste emissions, increasing carbon sequestration, replacing high global warming potential gases, and other measures).

The systemic changes needed to achieve the 2030 and 2050 GHG reduction goals will require significant policy, technical, and economic solutions. Decarbonization of the transportation fuel supply will require electric and plug-in hybrid electric vehicles to make up the vast majority of light-duty vehicles. Some changes, such as the use of biofuels to replace petroleum for aviation, cannot be accomplished without action by the federal government. Furthermore, achieving the 2050 GHG reduction goals will require California to increase the amount of electricity that is generated by renewable generation sources dramatically and, correspondingly, advance the deployment of energy storage technology and smart-grid strategies, such as price-responsive demand and the smart charging of vehicles. This would entail a significant redesign of California's electricity system.

In qualitatively evaluating the project's emissions for consistency with SB 32 and EO S-03-05, it is important to note that some of these broad-scale shifts in how energy is produced and used are outside of the control of the project. The changes necessitated by the State's long-term climate policy will require additional policy and regulatory changes, which are unknown at this time. As a consequence, the extent to which the project's emissions and resulting impacts would be mitigated through implementation of such changes is not known and cannot be known at this time.

Furthermore, implementation of such additional policy and regulatory changes is in the jurisdiction of State-level agencies (e.g., ARB), not the District or the project. However, some of these measures (e.g., decarbonization, energy efficiency, and reduced fossil-fuel-based VMT) can be facilitated, at least to some extent, through implementation of specific GHG reduction measures. Under this same rationale, if the proposed project did not implement measures to maximize energy efficiency or utilize renewable energy, the reductions may not be sufficient for an individual project to meet the aggressive 2030 and 2050 cumulative reduction goals (**Impact-GHG-2**). Mitigation Measures **MM-GHG-1** through **MM-GHG-5** are required to support progress toward the 2030 and 2050 GHG reduction goals of SB 32 and EO S-03-05. While the project's GHG emission reduction targets for 2030 and 2050 were extrapolated from the District's CAP based on the project's proposed sectors, the project emissions would remain significant because it is unknown if these specific targets would meet the State's overall objectives of SB 32 and EO S-03-05.

Estimates of GHG emissions associated with the existing activity at the project site are shown in Table 4.6-4 above. Estimates of landside-related GHG emissions associated with operation of the project in 2030 and 2050 before mitigation are presented in Table 4.6-8 and after mitigation are presented in 4.6-12. As shown, landside activities in 2030 and 2050 would not achieve the requisite emission reductions after accounting for VMT reductions associated with site design prior to mitigation (**Impact-GHG-2**). As shown, emissions would decline through the life of the project, and GHG emissions would trend downward over time, consistent with the need for deeper reductions post-2020 promulgated in SB 32 and EO B-30-15.

Estimates of waterside-related GHG emissions associated with operation of the project in 2030 and 2050 before mitigation are presented in Table 4.6-10 and after mitigation are presented in 4.6-14.

As shown, waterside activities in both 2030 and 2050 would not achieve the requisite emission reductions prior to mitigation (**Impact-GHG-2**). As discussed above, emissions from boating would only decline marginally through the life of the project because there are no reductions from adopted regulations that will reduce emissions during the post-2020 timeframe. However, GHG emissions associated with cold ironing do decline through the life of the project as SDG&E moves toward its 2030 RPS target of 50%.

As discussed above, in order to demonstrate “substantial progress” toward long-term targets, the project would need to demonstrate that emissions would be consistent with the District-specific benchmarks in 2030 (6.3 MTCO₂e/room for landside; 66% below 2030 unmitigated levels for waterside) and 2050 (1.4 MTCO₂e/room for landside; 90% below 2050 unmitigated levels for waterside). However, the framework to achieve post-2020 targets (e.g., 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050) at the State level is unknown until ARB adopts such a framework. The project and District as a whole cannot meet these long-term targets by themselves without statewide efforts. Further implementation of adopted statewide measures, particularly the RPS of 50% per SB 350, would reduce project-related electricity. Recently adopted regulations and measures, including Phase 2 truck standards, will further reduce emissions in the post-2020 timeframe.

Moreover, the District has not yet adopted a framework or plan to meet long-term (i.e., post-2020) reduction targets. As such, it is possible that the proposed project’s needed reductions would have to be even greater (or less) than the statewide targets in order to achieve the SB 32 and EO S-03-05 reduction targets. Consequently, the impact would be significant and unavoidable.

2020 to 2050 – Consistency with Regulations and Regulatory Programs Adopted by ARB or Other State Agencies

Specifically, at the State level, ARB’s Draft 2017 Scoping Plan Update provides insight into the strategies that will likely be included and adopted into long-term planning documents in the near future.

Draft 2017 Scoping Plan Update Strategies

The Draft 2017 Scoping Plan Update 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 Draft 2017 Scoping Plan Update proposed meeting the 2030 goal by accelerating the focus on zero and near-zero technologies for moving freight, continued investment in renewables, greater use of low-carbon fuels including electricity and hydrogen, stronger efforts to reduce emissions of short-lived climate pollutants (CH₄, black carbon, and fluorinated gases), further 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 (ARB 2017b).

Project consistency with anticipated regulations within the draft post-2020 Scoping Plan strategies is discussed in Table 4.2-16. For purposes of discussing post-2020 GHG emissions, the quantified emissions presented in Table 4.6-9, Table 4.6-10, Table 4.6-13, and Table 4.6-14 only include the project features, adopted State measures, and proposed mitigation measures, and do not include reduction from any anticipated State measures.

For the consistency analysis, adopted measures (like SB 350) are reviewed in order to disclose the project's consistency with such regulations. For informational purposes only, the project's consistency with strategies proposed in the Draft 2017 Scoping Plan Update is also provided, but is not relied on in determining whether the project would have significant GHG emission impacts. Consistency with these strategies is discussed in Table 4.6-16.

As discussed above, further implementation of major statewide measures (particularly RPS of 50%) and mitigation measures for the project would reduce project operational GHG emissions associated with both landside and waterside activities. As shown in Table 4.6-9, project landside emissions would fall short of the efficiency target for both 2030 and 2050 prior to mitigation but after including site design (VMT) reductions. As shown in Table 4.6-10, project waterside emissions would fall short of the performance benchmark for both 2030 and 2050 prior to mitigation.

Although overall project GHG emissions (landside and waterside) do demonstrate substantial progress on a downward trajectory relative to unmitigated emissions, reductions without mitigation do not parallel the long-term reduction targets promulgated in SB 32 and EO S-03-05. Moreover, because the project and District as a whole are reliant on the State to develop regulations and guidance, and to cooperate with and petition other agencies to reduce emissions from the largest sources, it is not certain if the project's post-2020 emissions through 2050 would meet the specific reduction targets required by the project in order to achieve the overall state targets.

Therefore, post-2020 project GHG emission impacts are considered significant (**Impact-GHG-2**). As mentioned, after implementation of mitigation measure **MM-GHG-5**, project emissions would be substantially reduced and would be on a downward trajectory, but would remain significant because there is no certainty that the project's reduced emissions, after mitigation, would represent its fair share of the requisite reductions to achieve statewide post-2020 targets. Consequently, the project may not result in sufficient progress toward long-term local, regional, and statewide reduction targets and its contribution of GHG emissions to global climate change in the post-2020 period would still be considered cumulatively considerable after mitigation is incorporated.

Table 4.6-16. Project Consistency with 2017 Draft Scoping Plan Update for 2030

Policy	Project Consistency Analysis
RPS 50% and Doubling of Energy Efficiency Requirements per SB 350	Consistent Prior to Mitigation. State program that requires no action at the local or project level. Benefits to project-related electricity and water consumption will be realized.
Low Carbon Fuel Standard	Consistent Prior to Mitigation. State program that requires no action at the local or project level. Benefits to project-related visitation, delivery truck travel, and recreational boating will be realized independently.
Mobile Source Strategy (Cleaner Technology and Fuels [CTF]) Scenario	Consistent Prior to Mitigation. State program that requires no action at the local or project level. Benefits to project-related visitation and delivery truck travel will be realized independently.
Short-lived climate pollutants per AB 1383	This policy is not applicable.
California Sustainable Freight Action Plan	This policy is not applicable.
20% Refinery Sector	This policy is not applicable.
Post-2020 Cap-and-Trade Program	This policy is not applicable.
Source: ARB 2017b	

Level of Significance Prior to Mitigation

For the post-2020 period, the proposed project (1) would not parallel the State's overall reduction targets identified in SB 32 and EO S-03-05, and (2) would not be in compliance with plans, policies, and regulatory programs adopted by ARB or other California agencies for post-2020 for the purpose of reducing the emissions of GHGs. Potentially significant impact(s) include:

Impact-GHG-2: GHG Emissions in Excess of Post-2020 Targets for Landside Uses and Recreational Boating. Project GHG emissions during combined project construction and operational activities would not meet the landside efficiency target in 2030 and 2050, and would not meet the performance standard for recreational boating in both 2030 and 2050. Additionally, the proposed project would not comply with plans, policies, and regulatory programs outlined in the Draft 2017 Scoping Plan Update because emissions are not sufficiently reduced to meet statewide targets.

Mitigation Measures

For **Impact-GHG-2**:

Implement **MM-GHG-1** through **MM-GHG-4**.

MM-GHG-5: Implement a Renewable Energy Project on Site, on Tidelands, or Within Offsite Tidelands Adjacent to Community or Member City, or Purchase the Equivalent Greenhouse Gas Offsets from a California Air Resources Board Approved Registry or a Locally Approved Equivalent Program. To reach the landside and waterside reduction target for 2030 the project proponent shall, in order of preference, considering availability of structures and feasibility, incorporate renewable energy (1) on the project site; (2) within the District's jurisdiction; or (3) within the adjacent community or member city outside of the District's jurisdiction. These three options may be combined with consideration to the preference described above. If construction of renewable energy projects does not satisfy the waterside performance standards, the project proponent shall purchase greenhouse gas reduction credits to achieve requisite reductions to meet the 2030 waterside reduction target. This requirement may include a micro-grid or similar type of energy management system to help distribute the loads and/or assist in energy storage. To meet the 2030 landside and waterside reduction target, the renewable energy project must offset an additional 3,418 MTCO_{2e} per year. The renewable energy project shall be submitted to the District's Development Services Department no later than January 1, 2028, shall consider the latest advancements in energy technology and future regulatory requirements, and must be operational by January 1, 2030. In the event greenhouse gas offsets are purchased, these offsets must be from sources listed on the American Carbon Registry and/or the Climate Action Reserve (or any other such registry approved by the California Air Resources Board). The selected option or a combination must achieve a total annual reduction of 3,418 MTCO_{2e} per year or 15,317 megawatt-hours per year (MWh/year), which would amount to 68,367 MTCO_{2e} over 20 years (between 2030 and 2050).

To meet the 2050 landside and waterside reduction targets, the renewable energy project must offset 11,935 MTCO_{2e} per year or 53,478 MWh/year. The renewable energy project may be submitted to the District's Development Services Department as late as January 1, 2048 (but no later) in order to consider the latest advancements in energy technology and future regulatory requirements, but may be submitted sooner and must be operational by January 1, 2050. In the

event greenhouse gas offsets are purchased, these offsets must be from sources listed on the American Carbon Registry and/or the Climate Action Reserve (or any other such registry approved by the California Air Resources Board). The selected option or a combination must achieve a total annual reduction of 4,447 MTCO₂e for waterside uses and 7,489 MTCO₂e for landside uses, which would amount to 441,604 MTCO₂e over 37 years (between 2050 and the end of the lease, 2087).

Level of Significance after Mitigation

Even after implementation of **MM-GHG-1** through **MM-GHG-5**, **Impact-GHG-2** would remain significant due to the lack of a known reduction target that considers the location and type of project; therefore, it cannot be stated with certainty that the project would result in emissions that would represent a fair share of the requisite reductions to achieve post-2020 targets and **Impact-GHG-2** would remain significant and unavoidable.

Threshold 3: 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.

Impact Discussion

As discussed in Section 4.6.2.4, *Impacts of Global Climate Change*, several impacts on the environment are expected throughout California as a result of global climate change. The extent and timing of these effects is 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 SLR.

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.

Therefore, the extent to which the proposed project would exacerbate (i.e., worsen) any existing and/or projected damage to the environment, including existing structures and sensitive resources, due to SLR, is provided herein.

Projected SLR, 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 SLR. More specifically, SLR is a concern for the future, particularly in combination with future storm events and coastal flooding. When 100-year flood flows coincide with high tides, on top of future SLR, the risk of flooding in the project vicinity increases.

Historically in San Diego, the mean sea level trend was 2.13 millimeters/year with a 95% confidence interval of +/- 0.19 millimeters/year based on monthly mean sea level data from 1906 to 2015, which is equivalent to a change of 0.70 foot in 100 years. SLR is anticipated to accelerate over the next century. The June 2012 National Research Council report *Sea-Level Rise for the Coasts of California, Oregon, and Washington*, which was used in the CCC's *Sea Level Rise Policy Guidance* (CCC 2015), projects SLR south of Cape Mendocino to be 0.13 to 0.98 foot (4 to 30 centimeters) by 2030, 0.39 to 2.0 feet (12 to 61 centimeters) by 2050, and 1.38 to 5.48 feet (42 to 167 centimeters) by 2100. The SLR by 2082 (the end of the useful life of the project) was estimated using a linear extrapolation between the CCC 2050 and 2100 estimates. The SLR projections for the project area are shown in in Section 4.6.2.4, *Impacts of Global Climate Change*.

Based on the projections shown in Table 4.6-5, if SLR keeps pace with the “high” projections (see Figure 4.6-1 for a graphic depiction), there is the potential for daily bulkhead overtopping at the end of the project’s useful life (i.e., 2082, or 66 years). However, after mid-century, projections of SLR become more uncertain. The range of future SLR projections is due in part to modeling uncertainties, but, primarily, it is due to uncertainties about future global GHG emissions and uncertainties associated with the modeling of land ice melting rates. Therefore, for projects with timeframes beyond 2050, it is especially important to consider adaptive capacity, impacts, and risk tolerance to guide decisions about whether to use the low or high end of the ranges presented.

The bulkheads around the project site vary in height between approximately 7 and 9 feet above existing mean sea level. These bulkheads are the first line of defense against SLR and storm surge. If the bulkheads are breached, water may infiltrate the project site.

Table 4.6-5 and Figures 4.6-1 and 4.6-2 show the minimum bulkhead elevation compared to SLR and storm surge projections for the 2030, 2050, and 2100 timeframes. As shown in Table 4.6-5 and Figure 4.6-1, the bulkheads should remain sufficiently above the upper end of the permanent SLR projections until the very end of its useful life (2082). As shown in Figure 4.6-2, when accounting for storm surge events (temporary inundation), the bulkheads would remain sufficiently above SLR and storm surge projections until at least mid-century, but inundation during storm surges will become more likely as the project moves closer to 2082. However, inundation during storm surges would occur with or without the project. Consequently, the project would not exacerbate the potential for inundation during storm surges. Moreover, **MM-LU-1**, as included in Section 4.9, *Land Use and Planning*, would lessen the effect of SLR on the project site. As such, with the proposed project, future effects from storm surges would be lessened when compared to the future condition without the project.

Although the overtopping of the bulkheads is only projected to occur late in the project’s useful life, it is possible that water could infiltrate the project site sooner. This could occur if the drainage system outfalls are located below the bulkhead elevations and are not equipped with backwater valves and pumps. If this is the case, the low-lying outfalls may be submerged earlier in the century either permanently due to SLR or temporarily during storm events. If the outfalls are submerged, then backwater-induced inundation may occur when precipitation cannot drain into the Bay. However, as discussed in Section 4.8, *Hydrology and Water Quality*, the project proponent/developer would prepare a project-specific Storm Water Quality Management Plan that identifies low-impact development features (site design and source control best management practices) and pollutant control best management practices to reduce the site discharge. Removal of runoff from the stormwater system through implementation of low-impact development would reduce the likelihood of backwater flooding on the project site.

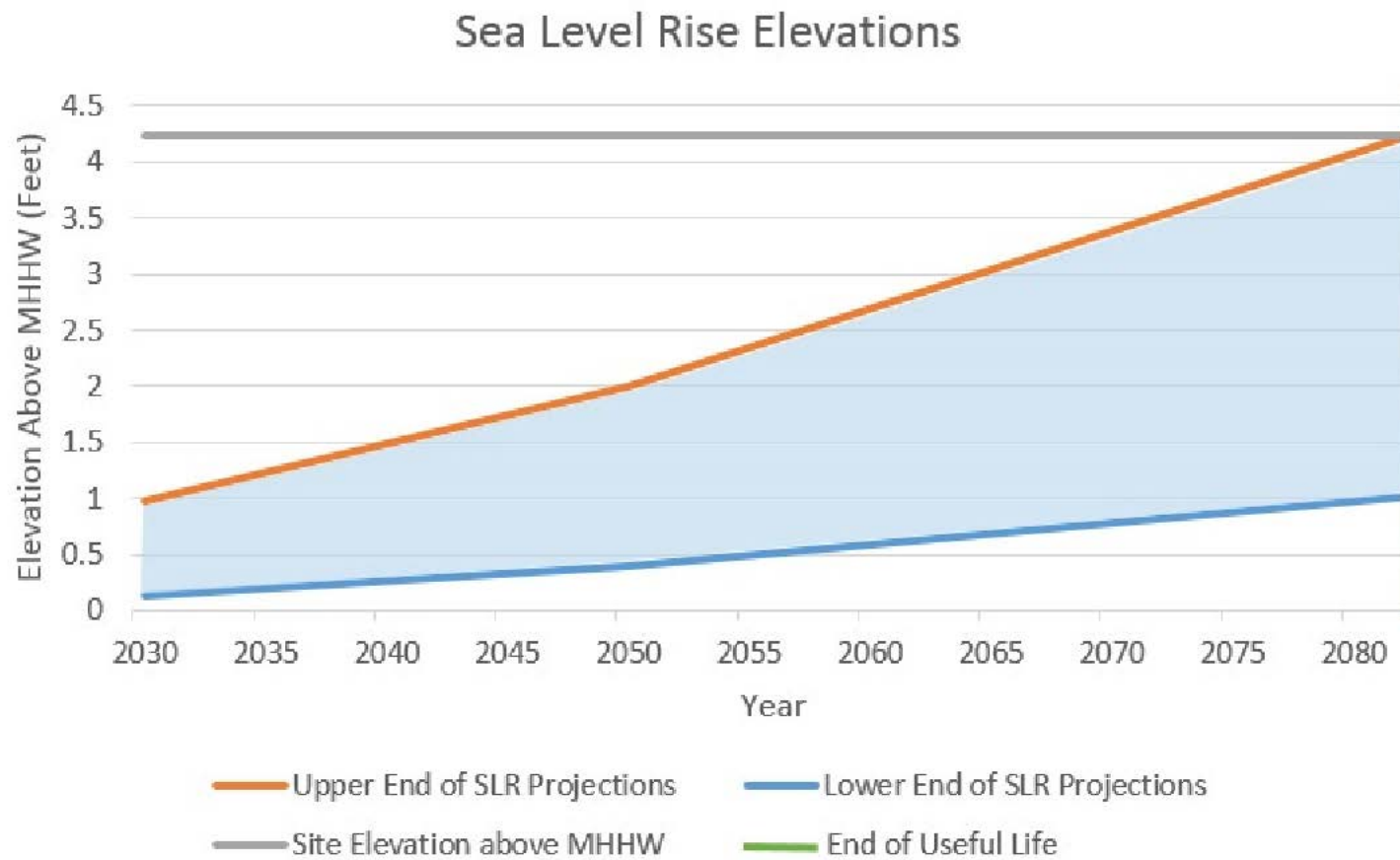


Figure 4.6-1
Sea Level Rise Elevations
Fifth Avenue Landing Project

Level of Significance Prior to Mitigation

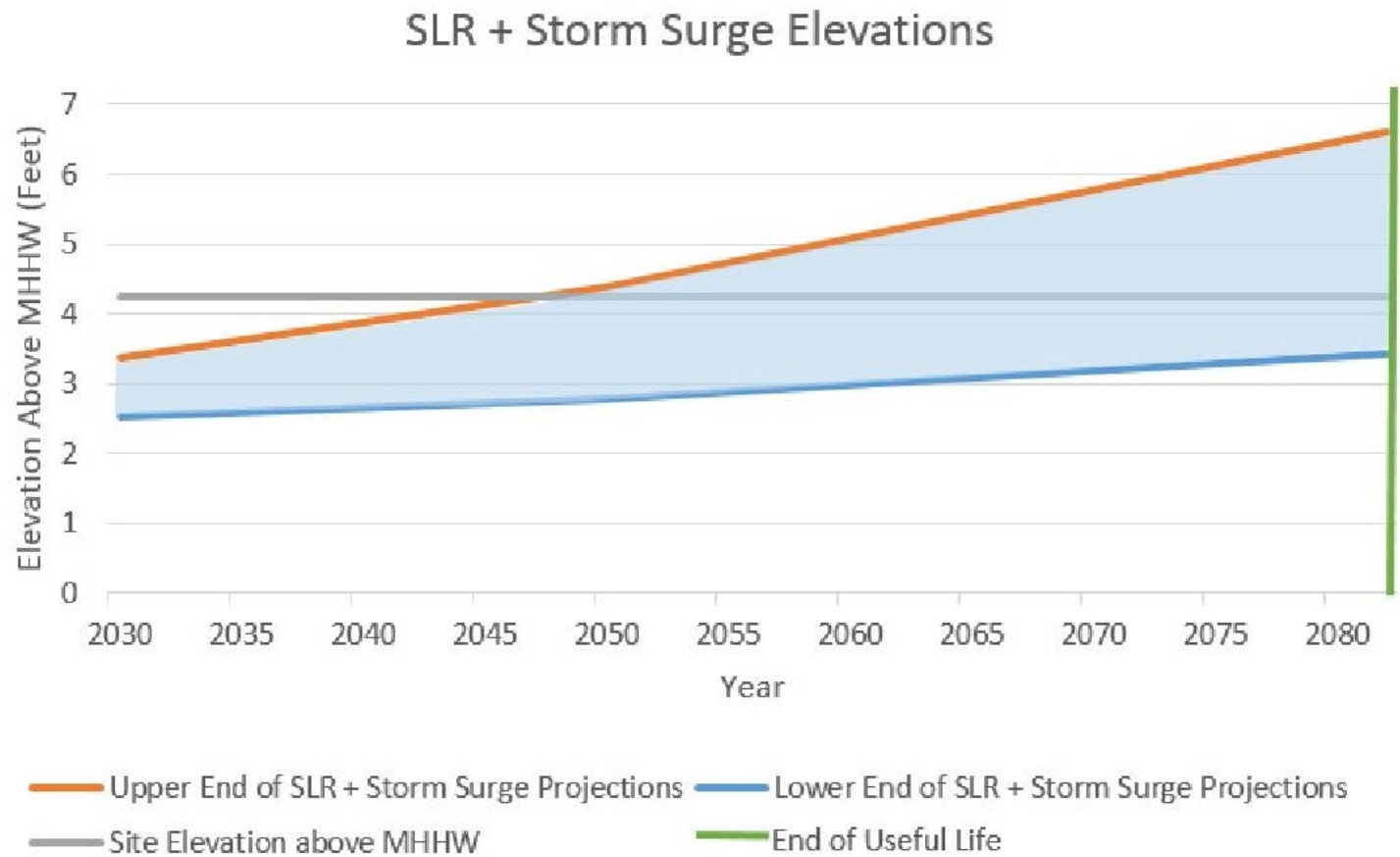
Implementation of the proposed project would not exacerbate any existing and/or projected damage to the environment, including existing structures and sensitive resources, due to predicted climate change effects, particularly SLR.

Mitigation Measures

No mitigation is required. However, as discussed in Section 4.9, *Land Use and Planning*, **MM-LU-1** is required to ensure consistency with the CCA by improving the project site's potential to avoid damage from SLR by implementing specific measures through smart planning to protect coastal resources into the foreseeable future.

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 or handle hazardous materials within 0.25 mile of a 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) result in a safety hazard to the public or environment because of its proximity to a public or private airport, (5) interfere with an adopted emergency response plan, and (6) expose people or structures to a significant risk involving wildland fires. 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 not in this section.

Information on hazards and hazardous materials in this section is summarized from the following reports.

- Cleanup and Abatement Order No. 95-21, Campbell Industries Marine Construction and Design Company (RWQCB 1995)
- *Eighth Annual Report for 2015 Long-Term Monitoring of Sediment Cap, Former Campbell Shipyard* (AMEC 2016)
- Environmental Data Resources, Inc. (EDR) Radius Map with Geotrack Inquiry Number 4760830.2s (Appendix H)
- *Long-Term Monitoring and Reporting Plan, Sediment Remediation and Aquatic Enhancement Project Former Campbell Shipyard* (Ninyo & Moore 2005)
- *Post-Remediation Groundwater Monitoring Report, Spinnaker Hotel Site, Former Campbell Shipyard* (Ninyo & Moore 2006)
- *Remedial Action Workplan Final Report, San Diego Unified Port District, Campbell Shipyard* (Kleinfelder 2000)
- *San Diego Convention Center Phase III Expansion and Expansion Hotel Project & Port Master Plan Amendment Environmental Impact Report* (District 2012)
- *Sediment Assessment Work Plan, Campbell Shipyard Environmental Investigation* (Kleinfelder 2016)
- *Tenth Avenue Marine Terminal Redevelopment Plan and Demolition and Initial Rail Component Environmental Impact Report* (District 2016)

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: Landside Soil Contamination	MM-HAZ-1: Prepare and Implement a Soil and Groundwater Management Plan MM-HAZ-2: Prepare and Submit a Monitoring and Reporting Program MM-HAZ-3: Prepare and Submit a Project Closeout Report MM-HAZ-4: Develop and Implement a Site-Specific Community Health and Safety Program	Less than significant	Compliance with a Soil and Groundwater Management Plan and Community 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 landside construction activities. In addition, preparation and submittal of a Monitoring and Reporting Program and a Project Closeout Report would ensure that the Soil and Groundwater Management Plan is properly implemented and documented.
Impact-HAZ-2: Waterside Sediment Contamination and Damage to the Cap	MM-HAZ-5: Avoidance of the Engineered Cap MM-HAZ-6: Conduct Sediment Sampling and Implement Measures to Mitigate Potential Cross-Contamination of Marine Sediment from Pile Driving and In-Water Construction MM-HAZ-7: Compliance with Federal and State Permits; No Impedance of Investigative Order No. R9-2017-0081	Significant and unavoidable	Avoidance of the engineered cap would ensure that the project proponent avoids disturbing the engineered cap during in-water construction of the marina expansion. Conducting sediment sampling and implementing measures to minimize potential marine sediment cross-contamination during construction, as well as compliance with federal and state permits. In addition, measures are included to sample and characterize sediments and dispose of contaminants to ensure the proper handling and disposal of contaminated sediments. In addition, the project proponent shall not impede the District's compliance with Investigative Order No. R9-2017-0081. However, because RWQCB and/or other federal and state agencies have final regulatory authority to approve specific methods for in-water construction, this impact would be significant and unavoidable.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-HAZ-3: Exacerbate an Existing Safety Hazard for People Residing or Working within the Vicinity of the Project Site	MM-HAZ-8: Obtain ALUC and FAA Formal Review and Determination	Less than significant	FAA and ALUC formal review and determination would ensure that construction and operation of the proposed project would not affect the safe and efficient utilization of the navigable airspace by aircraft or the operation of air navigation facilities.

4.7.2 Existing Conditions

The area around the project site has been developed for more than a century, though the project site was located within the harbor waters until fill efforts extended developable land and Bay shoreline into the project site by the late 1930s. Prior to the fill efforts, development within the project site was limited to the creation of wharfs and associated buildings constructed on pier pilings. Sanborn Fire Insurance maps indicate that by 1906 the San Diego Lumber Company and the Pacific Coast Steamship Company had built substantial wharfs into the Bay that extended into the project site (Appendix H). The City constructed a garbage incinerator sometime between 1906 and 1921 on land formed of trash deposits and dredged fill material, which gradually expanded the shoreline nearer to the project site. Although the City garbage incinerator was removed from the project vicinity sometime in the 1930s, an area designated by the City as a garbage disposal site, which included a ramp and garbage chute, remained present east of the project site into the early 1940s. During the 1970s, the land along the Bay became much more valuable for recreation and tourism. Existing businesses and industrial operations were slowly removed, the first two phases of the San Diego Convention Center (SDCC) were built in 1989 and 2001, respectively, and hotels and resorts sprang up all along the bayfront (District 2012).

In addition, Campbell Industries Marine Construction and Design Company (together referred to as “Campbell”) operated a shipyard partially within the project site from approximately 1915 to the 1990s (District 2012). The historical activities conducted at Campbell Shipyard related to various hazardous materials contaminated the offshore San Diego Bay sediment, soil, and groundwater (Ninyo & Moore 2006). As a result, this site has been the subject of several environmental studies and cleanup and abatement orders (CAO), beginning in 1985 (RWQCB 1995). CAO No. 95-21, issued by the San Diego Regional Water Quality Control Board (RWQCB) on May 4, 1995, to Campbell, addressed the contaminated Bay sediments, upland soils, and groundwater at the former facility. Chemicals of concern included copper, lead, zinc, total petroleum hydrocarbons (TPH), polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and tributyltin (TBT).

On February 29, 1996, and November 12, 1997, RWQCB issued Addenda Numbers 1 and 2 to CAO No. 95-21, respectively, to establish additional sediment sampling requirements, establish a cleanup level and time schedule, and extend the time schedule. On October 27, 2000, RWQCB issued Addendum Number 3 to CAO No. 95-21 naming the District as a responsible party. In 2004, RWQCB issued Order R9-2004-0295 (Waste Discharge Requirements for the Port of San Diego Campbell

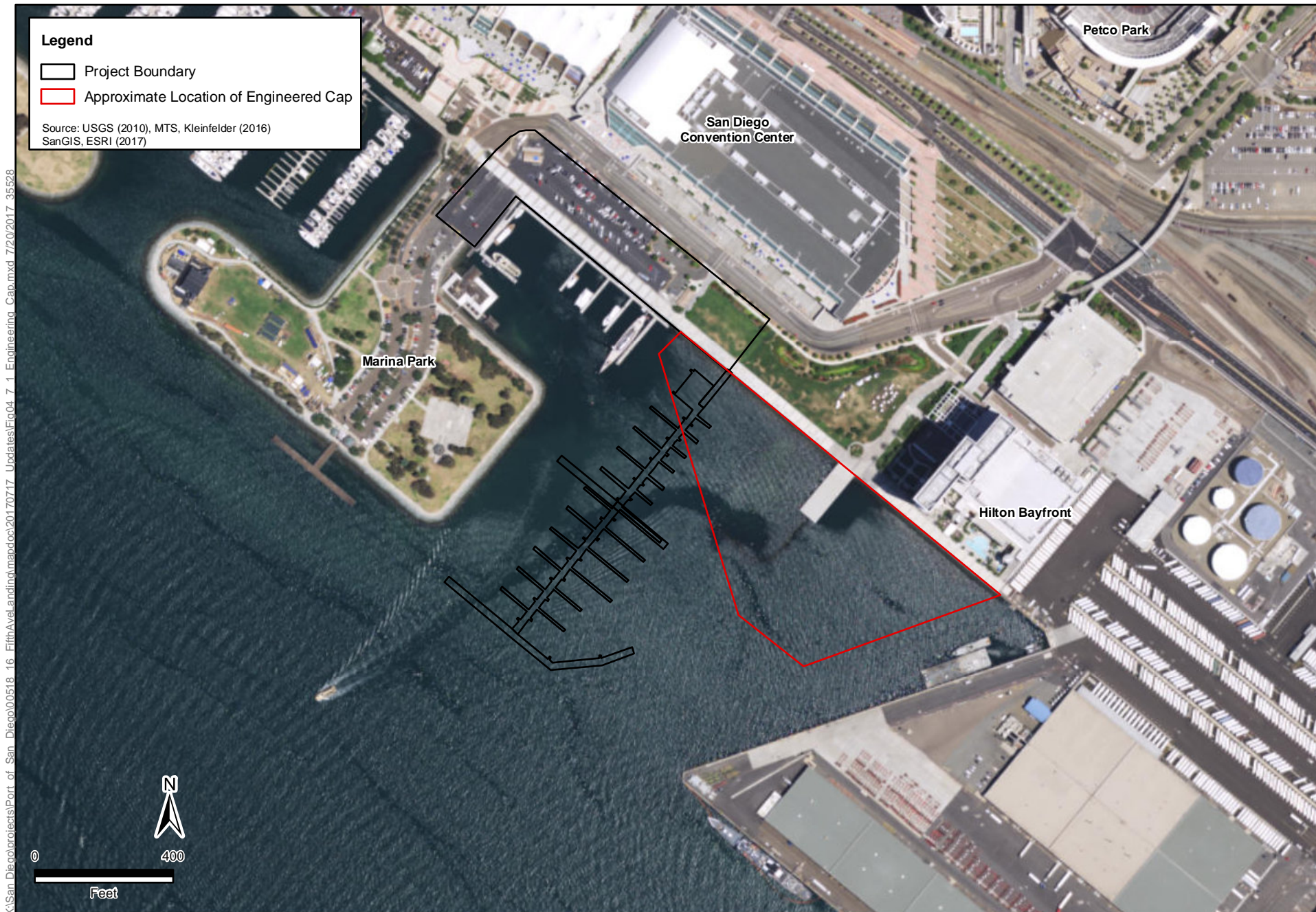
Shipyards Bay Sediment Cap Closure and Post Closure Maintenance, San Diego Bay) establishing requirements for the dredging of 35,900 cubic yards of sediment, creating 1.6 acres of shallow subtidal habitat, demolishing the existing shipways and marine rails, retrofitting an existing mole pier, repairing and reconstructing 1,230 feet of existing seawall, and placing rock revetment in front of the existing seawall.

In 2008, the District constructed an engineered cap and a habitat cap to isolate the sediments that were contaminated, in compliance with Order R9-2004-0295 (Figure 4.7-1; Kleinfelder 2016). Order R9-2004-0295 also required monitoring of the cap to ensure it continues to function effectively and contain the contaminants of concern so that water quality standards are not affected. A long-term monitoring plan (20 years) was prepared in 2005 (Ninyo & Moore 2005), and monitoring has been conducted since then in accordance with Order R9-2004-0295 and subsequent Addenda. During the October 2015 monitoring event, the chemicals of concern were again detected at concentrations that exceeded the Action Levels identified in Discharge Specification C.2(f) of San Diego RWQCB Order No. R9-2004-0295 (AMEC 2016). Therefore, the District prepared a work plan to assess the source of these chemicals of concern that were detected in sediment redeposited on the engineered cap (Kleinfelder 2016).

Additionally, a revised Addendum Number 3 to CAO No. 95-21 was issued on June 15, 2001, concerning soil and groundwater contamination at the former shipyard. The soil and groundwater contamination resulted from previous activities at the former shipyard, as well as prior waste disposal activities associated with San Diego Gas & Electric (SDG&E) and the City of San Diego (Kleinfelder 2000). In accordance with Addendum Number 3, multiple remediation efforts were conducted to clean up the soil and groundwater contamination at four main areas associated with the former Campbell Shipyard: landside TPH-impacted soils (which includes four smaller areas), landside PAH zone, landside TPH- and PAH-contaminated groundwater, and east parking lot area (Kleinfelder 2000; Ninyo & Moore 2006). A portion of the landside TPH-impacted soils area and the landside PAH zone are located within the project site. As a result of these efforts, the four main soil and groundwater contamination areas were remediated to below cleanup levels and, therefore, RWQCB agreed to the closure of these sites (GeoTracker 2016; RWQCB 2010). However, residual soil contamination remains at the landside TPH-impacted soils area and the landside PAH zone (Kleinfelder 2000). The landside PAH zone contamination area has been identified predominantly in the soil at approximately 12 to 17 feet below ground surface. Moreover, previous soil studies and remediation reports indicate that, while portions of the project site have been cleaned up, there is still a possibility that soils contaminated with heavy metals are present on site (District 2012).

As discussed in Section 4.8, *Hydrology and Water Quality*, past activities and current urban runoff, stormwater runoff, and sewer spills have also affected water quality in the San Diego Bay. Specifically, the Bay, Bay shoreline near Marriott Marquis San Diego Hotel and Marina (directly north of the project site), and Bay shoreline near Switzer Creek (directly south of the project site) have 303(d)-listed impairments for chlordane, PAHs, PCBs, and copper (State Water Resources Control Board 2012).

Currently, the proposed project site comprises a park, a public parking lot, a WTC ticket booth, a second parking lot that serves as a truck storage and ancillary parking for the SDCC, a temporary mobile trailer office, the Embarcadero Promenade, local access routes, and a 12-slip marina.



4.7.2.1 Onsite Hazardous Materials

Stored hazardous materials are not currently present within the project site boundaries (both land and water) (Appendix H). Stored hazardous materials have been previously reported within the project site, as discussed in the next section. The Campbell Shipyard Bay Sediment Cleanup & Capping site, as well as the landside TPH-impacted soils area and the landside PAH zone, partially extend into the project site.

4.7.2.2 Hazardous Materials Database Results

A review of applicable regulatory agency lists of known and potential hazardous waste sites, properties or facilities currently under investigation for potential environmental violations, and sites storing or using hazardous materials within a quarter mile of the project site was conducted by EDR on October 21, 2016.¹ Figure 4.7-2 shows the location of known hazardous materials sites within a quarter mile of the proposed project site.² Tables 4.7-2 and 4.7-3 list the onsite and offsite contamination sites.

Because there are more than 200 sites within a quarter-mile of the project site, specific screening criteria were applied to the results in order to determine the potential for the proposed project to exacerbate any existing hazardous condition. The screening criteria were identified based on the nature of the environmental concern, affected media and chemicals of concern, case status, and proximity to the project site:

- *Nature of the Environmental Concern:* Sites that are listed in the EDR report but not identified as a release site (for example, a site listed as storing hazardous waste but not as having had a release, or a dry cleaning company or automobile maintenance shop without a release) are typically not considered hazardous sites for purposes of this analysis because any site storing hazardous waste is required to comply with all laws and regulations and there is currently no potential for the proposed project to exacerbate the existing condition. Therefore, these sites do not meet the screening criteria.
- *Open Case Status/Affected Media:* Open (e.g., active and un-remediated) sites within a quarter-mile radius, particularly those with groundwater impacts, pose a potential risk because they could represent existing hazardous conditions that could be exacerbated by the proposed project. Therefore, active sites within a quarter mile that experienced a release meet the screening criteria.
- *Closed Case Status:* Sites that have been granted closure by an oversight agency are typically not considered hazardous such that the proposed project could exacerbate an existing hazardous condition. To be conservative, however, closed sites within an eighth of a mile are considered to meet the screening criteria, while closed sites beyond an eighth of a mile do not.

¹ EDR searches over 1,600 environmental databases, including hundreds of state, city, and tribal sources, for historical and current environmental records, aerial photographs, and maps. Some of the sources include the National Priority List site list, Comprehensive Environmental Response, Compensation and Liability Information System database, Resource Conservation and Recovery Act lists, Spills, Leaks, Investigations, and Cleanup cases, underground storage tank lists, and the California Hazardous Material Incident Report System.

² The site locations identified on the map are approximate because the extent of contamination and/or the exact location of sites are not always available.

- *Proximity*: Sites that experienced a release of hazardous materials within an eighth-mile radius have the most potential to be compounded by the proposed project being implemented and, as such, exacerbating the existing hazardous condition. Therefore, sites within an eighth of a mile that experienced a release meet the screening criteria.

An initial screening of offsite hazardous material sites was conducted and only those that met the screening criteria are presented in the tables below. The full list of sites within a quarter mile of the project site are identified in Appendix H.

Onsite

As discussed in Section 4.7.2.1, *Onsite Hazardous Materials*, stored hazardous materials are not currently present within the project site boundaries. However, the EDR report lists several sites where hazardous materials were stored or where a release occurred in the past. In addition, the Campbell Shipyard Bay Sediment Cleanup & Capping site, as well as the landside TPH-impacted soils area and the landside PAH zone, partially extends into the project site. Table 4.7-2 lists three sites that meet the screening criteria. The other sites had no record of a release and, therefore, did not meet the screening criteria.

Offsite

Table 4.7-3 lists sites that are within a quarter mile of the project site that meet the screening criteria. The other sites that did not meet the screening criteria are included in Appendix H.



Figure 4.7-2
Hazardous Materials Site Locations
Fifth Avenue Landing Project

Table 4.7-2. Onsite Contamination Sites Listed on a Hazardous Materials Database

Number	Site Name	Address	Database Listings	Site Summary	Status
1.	5th Avenue Landing	600 Convention Way	CHMIRS	Yacht diesel fuel release of unknown quantity into the San Diego Harbor reported in 2011. Cleanup details not reported. The San Diego Harbor Police responded and oversight was provided by the San Diego County Health Services Department.	Case Closed
2.	600 Convention Way (5th Avenue Landing)	600 Convention Way	CHMIRS, ERNS	Five gallons of diesel fuel release into the San Diego Bay reported in 2013. Release was discovered in water near storm drain outlet; source was unknown. No containment or cleanup was possible. The San Diego Harbor Police responded and oversight was provided by San Diego County Health Services Department.	Case Closed
3.	Campbell Shipyard Bay Sediment Cleanup & Capping ¹	San Diego Bay	LDS, WDS	Sediment in the San Diego Bay was contaminated with PCBs, copper, zinc, lead, tributyltin, PAHs, and TPH (Kleinfelder 2016) due to previous activities conducted by the Campbell Industries Marine Construction and Design Company and General Petroleum (Ninyo & Moore 2006). Cleanup activities have been conducted since 1995, including constructing an engineered and habitat cap over the contaminated sediments. These chemicals of concern were identified over the cap in an October 2015 monitoring event.	Case Closed with Environmental Monitoring – District preparing to implement a study to identify the sources of contamination
4.	Campbell Shipyard Area Wide Contamination	Landside Area Adjacent to San Diego Bay between Harbor Drive and Marina Way	RWQCB	Soil and groundwater were contaminated at four main areas in association with the former Campbell Shipyard: landside TPH-impacted soils (which includes four smaller areas), landside PAH zone, landside TPH- and PAH-contaminated groundwater, and east parking lot area (Kleinfelder 2000; Ninyo & Moore 2006). A portion of the landside TPH-impacted soils area and the landside PAH zone are located within the project site. As a result of remediation efforts, the four main soil and groundwater contamination areas were remediated to below cleanup levels and, therefore, RWQCB agreed to the closure of these sites (GeoTracker 2016; RWQCB 2010). However, residual soil contamination remains at the landside TPH-impacted soils area and the landside PAH zone (Kleinfelder 2000).	Case Closed contingent on no changes in land use

¹ The EDR report includes more than 10 sites related to Campbell Shipyard, most of which are closed and/or duplicates. The site included here is currently considered closed with ongoing environmental monitoring.

CHMIRS = California Hazardous Material Inventory Reporting System

ERNS = Emergency Response Notification System

LDS = Land Disposal Sites

Number	Site Name	Address	Database Listings	Site Summary	Status
LUST = Leaking Underground Storage Tank PAHs = polyaromatic hydrocarbons PCBs = polychlorinated biphenyls RWQCB = Regional Water Quality Control Board TPH = total petroleum hydrocarbons WDS = Waste Disposal Sites					

Table 4.7-3. Offsite Contamination Sites Listed on a Hazardous Materials Database

Number	Site	Address	Distance from the project	Database Listings	Site Summary	Status
5.	Hilton San Diego Bayfront	1 Park Boulevard	0.03 mile	San Diego Co. HMMD	Various hazardous materials stored on site under HMMD oversight. Various violations occurred during an inspection in 2011. All violations were administrative in nature and were corrected by 2012. No records of releases identified.	Case Closed
6.	Harbor Drive Pedestrian Bridge	Harbor Drive and Park Boulevard	0.03 mile	HAZNET, Envirostor	During construction of a pedestrian bridge over Harbor Drive near Park Boulevard in 2008 and 2009, soils contaminated with TPH, PAHs, volatile organic compounds, and heavy metals were identified. Contaminated soil was excavated and removed.	Case Closed
7.	10th Avenue Terminal Berth 5	Berth 5	0.11 mile	CHMIRS	Two separate releases. First release occurred in 2011 and involved 10 gallons of hydraulic oil. Spill occurred on the pier, no waterway or soil affected. Second release involved 0.5 gallon of hydraulic oil into the San Diego Bay in 2015. Cleanup was performed using booms and absorbents.	Case Closed
8.	Tenth Avenue Marine Terminal	802 Terminal Street	0.12 mile	RCRA-LQG, FINDS, UST, GeoTracker	Tenth Avenue Marine Terminal has had a history of contamination from LUSTs and petroleum products. All releases within 0.25 mile of the project site were remediated and granted closure. Refuse burning occurred within the northern portion of the site from approximately the early 1900s to the 1940s.	Case Closed

Number	Site	Address	Distance from the project	Database Listings	Site Summary	Status
9.	Harborside Refrigerated Service	802 Terminal Street	0.12 mile	San Diego Co. HMMD, CHMIRS, FINDS	Various hazardous materials stored onsite under HMMD oversight. Multiple violations occurred during inspections in 2005, 2008, and 2011. All violations reported by HMMD were administrative in nature and were corrected by 2012. In 2011, a release of 20 gallons of lube oil occurred during a delivery. Also in 2011, a release of 30 gallons of fuel occurred during a fuel transfer on site. Fuel was contained and subsequently cleaned up. Equipment failure in 2015 caused a release of 227 pounds of anhydrous ammonia into atmosphere. Equipment was fixed and release stopped.	Case Closed
10.	San Diego Unified Port District	501 Harbor Drive	0.13 mile	LUST, San Diego Co. SAM, San Diego Co. HMMD, UST, GeoTracker	Site listed with multiple incidents. One involved release of diesel to groundwater in 1990. Another release involved gasoline to groundwater in 1995.	Case Closed
11.	525 E Harbor Drive	525 E Harbor Drive	0.13 mile	CHMIRS	Several issues reported at this site. In 2007, a private lateral sewage pipe leaked into the San Diego Harbor. In 2012, an anonymous caller reported seeing an oil sheen within the San Diego Harbor.	Unknown; assumed to be closed
12.	Marriott Marquis San Diego Hotel and Marina	333 West Harbor Drive	0.13 mile	LUST, SLIC, EMI, HIST CORTESE, GeoTracker	In 1997, a UST holding diesel ruptured and contaminated the soil, which was excavated in 1998. Follow-up investigations confirmed that soil and groundwater contaminant levels would not pose a significant risk to public or the environment. A soil mitigation plan is being prepared to present a summary of proposed assessment and remedial activities.	Open – Site Assessment
13.	San Diego Convention Center (Tidelands Dump)	100 Harbor Drive (8th Avenue & Harbor Drive)	0.16 mile	SLIC	Soil and groundwater are potentially contaminated with dioxin - furans, lead, PAHs, and zinc. However, this site is considered to be a Category 1 site (characterized by soil or groundwater contamination that does not pose an immediate human health threat and does not extend off site onto neighboring properties).	Open - Inactive

Number	Site	Address	Distance from the project	Database Listings	Site Summary	Status
14.	Mouth of Switzer Creek	0 Water Street	0.19 mile	SLIC, GeoTracker	Sediments and surface water are contaminated with PCBs, chlorinated pesticides, metals, and PAHs (RWQCB 2004). This site is considered to be a Category 2 site, which includes sites with significant contamination where moderate public concern or interest exists. Sediments present potential impacts on benthic organisms.	Open - Inactive
15.	Cost Plus Inc. #36 (4 th & J)	372 4th Avenue	0.23 mile	SLIC, HAZNET, GeoTracker	As a result of historical activities, the soil and groundwater below the site are affected by lead, asbestos, and TPH. In addition, tetrachloroethene was identified in soil vapor samples taken inside of the building on site. As soil management plan is currently being finalized to address this contamination.	Open – Site Assessment

CHMIRS = California Hazardous Material Inventory Reporting System

FINDS = EPA's Facility Identification Systems

HAZNET = California Hazardous Waste Information System

HIST = Hazardous Substance Storage Container

HMMD = Hazardous Material Management Division

LDS = Land Disposal Sites

LUST = Leaking Underground Storage Tank

PAH = polynuclear aromatic hydrocarbon

PCBs = polychlorinated biphenyls

RCRA-SQG = Resource Conservation and Recovery Act – Small Quantity Generator

RCRA-LQG = Resource Conservation and Recovery Act – Large Quantity Generator

SAM = Site Assessment and Mitigation

SLIC = Spills, Leaks, Investigations, and Cleanups

TPH = total petroleum hydrocarbons

UST = Underground Storage Tank

4.7.2.3 Proximity to Schools

The project site is approximately 0.58 mile west of Monarch K–12 School (1625 Newton Avenue, San Diego, CA 92113), and approximately 0.68 mile west of Perkins Elementary School (1770 Main Street, San Diego, CA 92113). Other schools nearby include King-Chavez Community High School approximately 0.72 mile to the north, Garfield High School approximately 1.13 miles to the northeast, Sherman Elementary School 1.05 miles to the east, San Diego High School approximately 1.07 miles northeast, Washington Elementary School approximately 1.24 miles to the north, Burbank Elementary School 1.30 miles to the southeast, Logan K-8 School 1.60 miles to the southeast, and Museum K-8 School 1.80 miles to the north.

4.7.2.4 Proximity to Airports and Airstrips

The closest airport is the San Diego International Airport (SDIA), which is approximately 1.8 miles northwest of the project site. Naval Air Station North Island is approximately 2.0 miles west of the project site, and Naval Outlying Field Imperial Beach is 9.5 miles to the south of the project site. The proposed project site is not within the SDIA Airport Safety Compatibility Zones; however, it is within the Airport Influence Area (AIA) Review Area 2 (San Diego County Regional Airport Authority 2014).

Airport Land Use Commission (ALUC) review is required for land use plans and regulations within Review Area 2 proposing increases in height limits and for land use projects that: (1) have received from the Federal Aviation Administration (FAA) a Notice of Presumed Hazard, a Determination of Hazard, or a Determination of No Hazard subject to conditions, limitations, or marking and lighting requirements; and/or (2) would create any of the following hazards (San Diego County Regional Airport Authority 2014).

- Glare
- Electromagnetic interference
- Thermal plumes
- Lighting
- Dust, water vapor, and smoke
- Bird attractants

The San Diego County Regional Airport Authority is currently preparing the Airport Land Use Compatibility Plan (ALUCP) for Naval Air Station North Island; therefore, airport influence and safety data were not available (San Diego County Regional Airport Authority 2016).

Local agencies must submit an application for consistency determination to the ALUC for its review prior to construction (San Diego County Regional Airport Authority 2014). The ALUC must respond to a local agency's request for consistency determination within 60 calendar days after the application is deemed complete by ALUC staff.

4.7.2.5 Emergency Response Plan

The City of San Diego Fire-Rescue Department is responsible for the preparation, maintenance, and execution of Emergency Management Plans. The City of San Diego has a Multi-Hazard Functional Plan and an Emergency Operations Center (EOC) to provide emergency response services throughout the City (County of San Diego 2014). The City makes regular modifications to the Emergency Management Plan as hazards, threats, population, and land use, or other factors change. The plan identifies resources available for emergency response and establishes coordinated action plans for specific emergency situations including earthquake, fire, major rail and roadway accidents,

flooding, hazardous materials incidents, terrorism, and civil disturbances. The City coordinates emergency response activities through its EOC. County, State, and federal emergency response resources are also located within San Diego and are available to assist the EOC if a situation demanded additional support. The EOC is staffed 24 hours a day by both public safety and other City personnel to coordinate emergency response activities (County of San Diego 2014).

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 the U.S. Environmental Protection Agency (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 (49 CFR 100–185)

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.
- **FAA** 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 (40 CFR 112.7)

Spill Prevention Control and Countermeasure (SPCC) plans 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 33 CFR and 46 CFR

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 (42 U.S.C. 11001 et seq.)

The Emergency Planning and Community Right-to-Know Act 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. The State Emergency Response 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; and
- 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.

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 the California Environmental Protection Agency (Cal/EPA), 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 (California Health and Safety Code, Chapter 6.11, Sections 25404–25404.9)

This program 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 (Health & Safety Code Section 25100 et seq.)

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 (Cal/OSHA) are responsible for ensuring worker safety in the workplace. Cal/OSHA 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/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, applicants must file a 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 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 applicant/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.

4.7.3.4 Local

City of San Diego Solid Waste Local Enforcement Agency

The City's Solid Waste Local Enforcement Agency is responsible for enforcing federal and state laws and regulations for the safe and proper handling of solid waste. State law (Public Resources Code) requires that every local jurisdiction designate a solid waste Local Enforcement Agency 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.

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 shall contact the Local Enforcement Agency for determination of the need for a solid waste facility permit.

RWQCB Municipal Permit (Order No. R9-2013-0001)

The Municipal Stormwater Permit (Order No. R9-2013-0001 as amended by Order Nos. R9-2015-001 and R9-2015-0100) is a National Pollutant Discharge Elimination System (NPDES) permit issued that requires the owners and operators of Municipal Separate Storm Sewer Systems (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 and other “copermittees” to develop watershed-based Water Quality Improvement Plans. The Municipal Stormwater Permit emphasizes watershed program planning and program outcomes. The intent of the 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 [Water Quality Improvement Plan] numeric goals.

The proposed project would be required to comply with the NPDES permit requirements.

Temporary Groundwater Extractions Permit (Order No. R9-2007-0034)

Order No. R9-2007-0034 is intended to cover temporary discharges of groundwater extraction wastes to the 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 the Bay.

The proposed project would be required to comply with Order No. R9-2007-0034 requirements if dewatering is required during construction.

Investigative Order for Sediment Characterization Adjacent to Tenth Avenue Marine Terminal, Cesar Chavez Park, and Pacific Maritime Freight (Order No. R9-2017-0081)

Order No. R9-2017-0081 is intended to characterize the extent and magnitude of pollutants and contaminated sediment in the areas in and adjacent to the Tenth Avenue Marine Terminal and includes waterside portions of the proposed project area. This order sets forth the requirements for sediment analysis in accordance with the *Bays and Estuaries Plan* and identifies the specific constituents to be sampled.

Jurisdictional Runoff Management Plan

Under Regional Water Quality Control Board Order No. R9-2013-0001, NPDES Permit No. CAS0109266, the 18 cities within San Diego County, along with the Port of San Diego, are required to prepare Jurisdictional Runoff Management Plans (JRMPs). Each jurisdictional plan must contain a component that addresses issues related to construction activities and a component that addresses issues related to existing development. As principal permittee, the County of San Diego prepares and submits an annual report on the unified JRMP that describes the progress of the programs and the strategies to reduce the discharge of pollutants of concern to the MS4 and receiving waters to the maximum extent practicable. Enforcement of the JRMP assists with preventing release of pollutants into the local storm drains and ultimately the 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, 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.

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 applicants 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.

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. The methodology used to evaluate potential impacts is set forth in reports listed above under Section 4.7.1, *Overview*, which were used to evaluate potential impacts relative to hazards and hazardous materials. Based upon the existing conditions described above, 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 for people residing or working within the vicinity of the project area.
6. Be located within the vicinity of a private airstrip and exacerbate a safety hazard for people residing or working within the vicinity of the project area.
7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
8. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including in areas where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands by exacerbating the existing hazardous conditions.

4.7.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Impact Discussion

Construction

Proposed project construction, including the offsite construction staging and utility improvements, would involve routine transport, use, and disposal of hazardous materials such as solvents, paints, oils, 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 regulations (as well as other regulations 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 typically used in construction projects and would not represent the transport, use, and disposal of acutely hazardous materials. Because compliance with existing hazardous materials regulations is mandatory, the proposed project is not expected to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

In addition, the construction phase of the proposed project does not meet the criteria that require preparation of an SPCC plan. In order for the proposed project to trigger the preparation of an SPCC plan, it would need to meet all three criteria identified in Section 4.7.3, *Applicable Laws and Regulations*. The construction phase of the proposed project meets two of the three criteria: construction would involve storing, using, transferring, or otherwise handling oil, and it is located adjacent to navigable waters of the United States; however, the construction phase of the proposed project would not result in an aggregate aboveground storage capacity greater than 1,320 gallons or an underground storage capacity greater than 42,000 gallons. Therefore, an SPCC plan is not required. Impacts would be less than significant.

Operation

The proposed project involves the redevelopment of approximately 5 acres of land and the expansion of the existing dock space over approximately 13 acres of water area. Land redevelopment would include a new market-rate hotel tower, optional pedestrian bridge, lower-cost visitor-serving hotel, parking structure, retail stores, and public plaza and park areas. As such, it is anticipated that the proposed project would use hazardous materials typically used in commercial establishments and hotel operations (e.g., solvents cleaning agents, paints, pesticides, fuels, propane, antifreeze, oil, mercury lamps, batteries, sulfuric acid, aerosol cans). These hazardous material products are generally used in small, localized amounts, and any spills that may occur are cleaned up as soon as they occur. Hazardous materials releases involving the two hotel sites would be addressed per requirements of their Hazardous Materials Business Plans (if handling and storage of hazardous materials exceed thresholds mentioned in Section 4.7.3.2).

Similar to construction as analyzed above, operation of the proposed project would not meet the criteria required for the preparation of an SPCC plan. Under operations, the proposed project would continue to meet two of the three criteria; however, operations would not result in aboveground storage capacity of oil products greater than 1,320 gallons or an underground storage capacity greater than 42,000 gallons. Therefore, project operations would result in a less-than-significant impact on the public or the environment through the routine transport, use, storage, or disposal of hazardous materials.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 2: Implementation of the proposed 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

The existing landside uses on the project site would be demolished to accommodate the construction of the proposed project. The existing 35-foot-wide Embarcadero Promenade would remain. In total, approximately 5 acres would be graded that would require demolition of approximately 1,711 cubic yards of the parking lot, 1,407 cubic yards of the hardscape, and 38,350 cubic yards of other materials, including concrete from existing buildings. In addition, various offsite

utility infrastructure improvements would be constructed for the proposed project, as detailed in Section 3.4.12.2, *Utilities*.

During construction a portion of the construction staging would occur at the R.E. Staite equipment staging lot. Other than employee parking and equipment staging, no improvements or construction activities would occur at this staging site. Therefore, the analysis below is focused on the construction activities associated with the construction of the project site.

Existing Contamination

If contaminated soil, groundwater, or sediments are present within the project site, excavation and other ground-disturbing activities during construction could expose the contamination, which could create a hazard to the public or the environment.

Onsite

As detailed in Section 4.7.2, *Existing Conditions*, contaminated soil and groundwater from prior activities at the former shipyard and waste disposal activities associated with SDG&E and the City were identified within and adjacent to the project site. Multiple remediation efforts were conducted to clean up the soil and groundwater contamination at four main areas associated with the former Campbell Shipyard, two of which are partially located within the project site. These include a portion of the landside TPH-impacted soils area and the landside PAH zone. The multiple cleanup efforts resulted in remediation of the four main soil and groundwater contamination areas to below cleanup levels. However, residual soil contamination remains at the landside TPH-impacted soils area and the landside PAH zone. The landside PAH zone contamination area has been identified predominantly in the soil at approximately 12 to 17 feet below ground surface. Moreover, previous soil studies and remediation reports indicate that, while portions of the project site have been cleaned up, there is still a possibility that soils contaminated with heavy metals are present on site (District 2012). In the event excavation activities extend into any existing contaminated soils, there is a potential that hazardous materials could be released into the environment, which would be considered a significant impact (**Impact-HAZ-1**).

As mentioned under Section 4.7.2.3, *Onsite Hazardous Materials*, the proposed project site was identified in multiple databases due to releases of hazardous waste into the San Diego Bay in 2011 and 2013. Five gallons of diesel fuel were released in 2013 and an undisclosed quantity was released in 2011. Because response oversight was conducted by the San Diego County Health Services Department, residual material would have dissipated into the Bay from the time the release occurred to now, and the case is closed, construction of the marina is not expected to release hazardous materials into the environment due to these two releases.

However, the Campbell Shipyard cap extends into the project site, and the integrity of the cap could be compromised by the installation of piles for the marina, which would violate the conditions of Order R9-2004-0295. As discussed above, sediment in the Bay was contaminated with PCBs, copper, zinc, lead, TBT, PAHs, and TPH (Kleinfelder 2016) due to previous activities conducted by Campbell (Ninyo & Moore 2006). The cap was constructed over the contaminated sediment to protect the Bay from potential water quality impairments that could occur if the contaminated sediment is disturbed. Therefore, if the cap is disturbed and/or contaminated sediments are present outside of the cap, construction of the marina could result in a release of hazardous materials and create a potentially significant hazard within the environment by exacerbating the existing hazardous conditions. In addition, installation of piles for the marina could damage the existing cap. Disruption

of contaminated sediment and/or the cap would also violate Order No. R9-2004-0295 and would be considered a significant impact (**Impact-HAZ-2**).

Offsite

Multiple hazardous materials site listings were identified in various databases within a quarter-mile radius from the project site, as shown in Table 4.7-3. Contaminated soil or groundwater related to the closed sites has been cleaned up to less-than-significant levels. Therefore, these sites are not expected to cause contamination within the project site that could be disrupted during construction.

The open sites with contaminated soil, including the San Diego Convention Center-Tidelands Dump, Marriott Marquis San Diego Hotel and Marina, and Cost Plus Inc. #36 sites, do not appear to overlap with the proposed project footprint (Appendix H; District 2012). Therefore, onsite construction would not exacerbate contamination related to these sites. However, the proposed offsite utility improvements could be located within an area contaminated by the SDCC-Tidelands Dump, and therefore construction activities could uncover contaminated soil (**Impact HAZ-1**).

Some open sites surrounding the proposed project also have a history of groundwater releases (as summarized in Table 4.7-3). However, these sites either have stabilized groundwater plumes or low-level hydrocarbon concentrations that are not considered a significant risk to downgradient projects. Consequently, none of the sites listed as having groundwater releases have a high likelihood of affecting the proposed project during construction, including during dewatering activities. Furthermore, as discussed in Section 4.7.3.4, *Local*, the proposed project would be required to comply with Order No. R9-2007-0034 requirements if dewatering is conducted during construction.

One site listed in Table 4.7-2 (Mouth of Switzer Creek) has contaminated sediments and surface water. This site is 0.19 mile to the southeast of the project site, between the north side of the Tenth Avenue Marine Terminal and the Campbell Shipyard Piers at the mouth of Switzer Creek. Sediments in the Switzer Creek outlet were sampled (in 2004) and identified as contaminated with PCBs, chlorinated pesticides, metals, and PAHs (RWQCB 2004). The results of this study indicated that the likely source of this contamination is the local storm drain system, which drains approximately 4.2 square miles of residential and industrial areas. Other potential sources of contamination noted in the study include shipyard and ship off-loading activities associated with Tenth Avenue Marine Terminal and former Campbell Industries. Although the Switzer Creek outlet is 0.19 mile from the proposed project site, sediments can be redistributed due to tidal effects and other disturbances. As such, the full areal extent of contaminated sediments is currently unknown; therefore, construction activities conducted in the marina have some potential to re-suspend contaminated sediments if found within the project site, which could affect the marine environment (**Impact-HAZ-2**).

Construction-Related Hazardous Materials

As described under Threshold 1, typical construction-related hazardous materials would be used during landside and waterside construction, including gasoline, oil, other vehicle- or vessel-related fluids, paints, and solvents. It is possible that any of these substances could be accidentally released during construction activities. However, as described in Section 4.7.3, *Applicable Laws and Regulations*, and in Section 4.8, *Hydrology and Water Quality*, the proposed project would comply with federal, State, and local regulations, would obtain a Section 10 permit and Section 401 permit, and would implement construction BMPs as required by the Construction General Permit. This would ensure that all hazardous materials are used, stored, and disposed of properly, which would

minimize potential impacts related to an accidental hazardous materials release during construction activities.

Asbestos-Containing Materials and Lead-Based Paint

Historical aerial photographs indicate that existing structures on the project site were constructed after 2000 and therefore do not contain ACM or LBP (Appendix H). As a result, an accidental release of asbestos or lead would not occur during construction of the proposed project.

Operation

Hotel operations as part of the proposed project would result in the use of solvents, cleaning agents, paints, pesticides, fuels, propane, antifreeze, oil filters, used oil, mercury lamps, batteries, and aerosol cans. These hazardous material products are generally used in small amounts, and any releases that occur are limited in scope and spill area and would be cleaned up soon after they occur as required regulations, including the RCRA and the NPDES permit. Proposed marina operations would be similar to existing operations and would comply with the applicable laws and regulations, including those enforced by the City of San Diego Solid Waste Local Enforcement Agency, as well as the San Diego Harbor Safety Plan (Office of Spill Prevention and Response 2015) and Order R9-2004-0295.

Therefore, operation of the proposed project would result in a less-than-significant impact related to hazards to the public or to the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials.

Level of Significance Prior to Mitigation

Implementation of the proposed project potentially 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. Potentially significant impact(s) include:

Impact-HAZ-1: Landside Soil Contamination. The historical information reviewed for this analysis indicates that the project site has a history of handling, disposal, and releases of hazardous materials. Therefore, contaminated soils may be encountered during construction activities, which could potentially result in a release of hazardous materials and exacerbate the existing hazardous conditions; impacts would be significant.

Impact-HAZ-2: Waterside Sediment Contamination and Damage to the Cap. Historical information and monitoring reports compiled from previous site assessments and database searches indicate that it is reasonably foreseeable that contaminated sediments may be encountered during construction activities within the marina portion of the project site. As such, construction activities that disturb the sediment would potentially result in a release of hazardous materials and create a potentially significant hazard within the environment by bringing and releasing subsurface sediment contaminants to the surface of the Bay floor or exacerbating the existing hazardous conditions by spreading contaminated sediment. In addition, installation of piles for the marina could damage the existing cap during construction of the marina expansion if piles or construction equipment were placed on the cap. Disruption of contaminated sediment and/or the cap would also violate Order No. R9-2004-0295 and would be considered a significant impact.

Mitigation Measures

For **Impact-HAZ-1**:

MM-HAZ-1: Prepare and Implement a Soil and Groundwater Management Plan. Prior to the District's approval of the project's landside working drawings, 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 Development Services Department for review and approval. After the District's review and approval, the project proponent shall implement the Soil and Groundwater Management Plan. The Soil and Groundwater Management Plan shall include the following:

- *A Landside Site Contamination Characterization Report* (Landside Characterization Report) delineating, throughout the landside project construction area, the vertical and lateral extent and concentration of landside residual contamination from the site's past use including, but not limited to, past use of the site as a fuel facility, municipal burn dump, and manufactured gas plant waste disposal area. The Landside Characterization Report shall include 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 landside residual contamination. The project applicant also shall enroll in the Voluntary Assistance Program with the County of San Diego Department of Environmental Health and shall submit the results of the Landside Characterization Report to Department of Environmental Health staff for regulatory concurrence of results.
- *A Soil and Groundwater Testing and Profiling Plan* (Testing and Profiling Plan) for those materials that will be disposed of during construction. Testing shall occur for all potential contaminants of concern, including CA Title 22 metals, PAHs, volatile organic compounds, pesticides, PCBs, semi-volatile organic compounds, hydrocarbons, or any other potential contaminants. 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 Soil and Groundwater Sediment Testing and Profiling Plan.
- *A Soil and Groundwater Disposal Plan* (Disposal Plan), which shall describe the process for excavation, stockpiling, dewatering, treating, and loading and hauling of soil and groundwater 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, CAC Title 27), and current industry best practices for the prevention of cross contamination, spills, or releases, such as 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 Landside Characterization Report and the planned site construction activity to ensure that site workers potentially exposed to site contamination in soil and groundwater 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 Submit a Monitoring and Reporting Program. During and upon completion of landside construction, the project proponent shall prepare a Monitoring and Reporting Program and submit it to the District's Development Services Department for review and approval. The Monitoring and Reporting Program shall document implementation of the Soil and Groundwater 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 the project proponent's submittal of 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, signed and certified by the licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer, as applicable, documenting compliance with the provisions of these and plans and the overall Soil and Groundwater Management Plan.

MM-HAZ-3: Prepare and Submit a Project Closeout Report. Within 30 days of completion of landside construction, the project proponent shall prepare a Project Closeout Report and submit it to the District's Development Services Department for review and approval. The Project Closeout Report shall summarize all environmental activity at the site and document implementation of the Soil and Groundwater Management Plan, as required by **MM-HAZ-1**, and the Monitoring and Reporting Program, as required by **MM-HAZ-2**.

MM-HAZ-4: Develop and Implement a Site-Specific Community Health and Safety Program. Prior to the District's approval of the project's landside working drawings, the project proponent shall develop a site-specific Community Health and Safety Program (Program) that addresses the chemical constituents of concern for the project site. The guidelines of the Program shall be in accordance with the County of San Diego Department of Environmental Health's *Site Assessment and Mitigation Manual* (2009) and EPA's *SW-846 Manual* (1986). The Program shall include detailed plans on environmental and personal air monitoring, dust control, and other appropriate construction means and methods to minimize the public's exposure to the chemical constituents of concern. The Program shall be reviewed, approved, and monitored for compliance by the District. After the District's approval, the project proponent shall implement the Program. The contractor shall utilize a Certified Industrial Hygienist with significant experience with chemicals of concern on the project site to actively monitor compliance with the Program and ensure its proper implementation during project construction activities.

For **Impact-HAZ-2**:

MM-HAZ-5: Avoidance of the Engineered Cap. During construction of the marina expansion, the project proponent shall avoid disturbance of the engineered cap and installation of all piles for the marina expansion shall occur outside of the engineered cap.

MM-HAZ-6: Conduct Sediment Sampling and Implement Measures to Mitigate Potential Cross-Contamination of Marine Sediment from Pile Driving and In-Water Construction.

Prior to the District's approval of the project's in-water working drawings, the project proponent shall retain a licensed Professional Engineer with substantial experience (i.e., more than 5 years) in marine sediment contamination, sediment sampling, and contamination remediation to perform all sediment sampling and analysis required by the Sampling and Analysis Plan (SAP) and Marine Sediment Contamination Characterization Report (Sediment Characterization Report)—both of which are discussed in detail within this mitigation measure.

The results of all sediment sampling shall be documented in a report and submitted to the District prior to any project development-related marine-side sediment-disturbing activities. If remediation is required, the remediation shall be conducted with oversight from the appropriate local, State, or federal regulatory agency. In addition, documentation evidencing the remediation work and completion thereof shall be submitted to the District. The project proponent shall monitor the remediation for its effectiveness for a period of time consistent with guidance from the regulatory agency with jurisdiction, but for no less than 1 year. A monitoring report shall be submitted to the District and the RWQCB for their review on a monthly basis, or at a frequency determined appropriate by relevant agencies having jurisdiction over the remediation. Additional details of this mitigation measure are provided below.

The project proponent and the professionally licensed Professional Engineer retained by the project proponent shall complete the following requirements, which shall be reviewed and approved by the District's Development Services Department, the RWQCB, and any other appropriate regulatory agencies.

- Develop a SAP and perform sediment sampling in area(s) of potential disturbance for in-water construction activities that are located outside of the engineered cap. Sampling shall be conducted in accordance with the *Water Quality Control Plan for Enclosed Bays and Estuaries Plan* (August 2009). Specifically, the samples shall include analysis of (1) grain size analysis, (2) physical parameters, (3) total organic carbon, (4) Target Analyte List metals, (5) pesticides, (6) PAHs, (7) total PCBs (all 209 individual PCB congeners), as analyzed and reported by EPA Method 1668, and (8) total polychlorinated terphenyls. The sampling area shall encompass the waterside project footprint and sample locations shall be representative of areas of potential project disturbance. Areas of potential disturbance include, but are not limited to, proposed pile locations for the marina expansion; the locations of construction equipment, including without limitation to the location of any proposed spudding or other anchoring systems that will be utilized during construction of the marina expansion; potential deposition areas within the proposed silt curtain footprint; and any other areas where the Bay floor will be disturbed.
- Prepare a Sediment Characterization Report delineating the vertical and lateral extent and concentration of the project site's sediment contamination outside the engineered cap (Sediment Characterization). The Sediment Characterization Report shall be based on the sediment sampling results and shall rely on the Effects Range – Low (ER-L) and Effects Range – Median (ER-M) guideline values of the National Oceanic and Atmospheric Administration's *Sediment Quality Guidelines* (1999) as the basis for characterizing the sediment. The project proponent shall disclose the results of the Sediment Characterization Report to the RWQCB and the District (and any other appropriate regulatory agencies), and consult with the RWQCB on the contamination characterization of the sediment.

- If contaminated sediment is identified in the Sediment Characterization Report, the project proponent shall prepare a Contaminated Sediment Management Plan (Sediment Management Plan) for the District's, RWQCB's, and any other appropriate regulatory agencies' review and approval, if applicable. Once approved, the Sediment Management Plan shall be implemented by the project proponent subject to oversight by the District, RWQCB, and any other appropriate regulatory agencies, if applicable. The Sediment Management Plan shall describe in detail the methods to be employed to prevent waterside construction activity from adversely affecting or exposing the contaminated sediment outside the engineered cap as identified in the Sediment Characterization Report and the monitoring that will occur post-construction, including, at a minimum:

- Pile Construction Options. Piles shall be constructed using:

(1) Impact Hammer Pile Driving. At the conclusion of the pile driving, the project applicant shall conduct sediment sampling of representative areas of potential disturbance near the location of piles consistent with the sampling approach set forth in the SAP, above. If the sediment samples show concentrations of sediment contamination above the Sediment Characterization, the project proponent shall delineate the extent of cross-contamination and propose remediation approaches (subject to approval by the District and any other agencies with jurisdiction over site contamination) that may include, but are not limited to, dredging, placement of sand cover, or Enhanced Monitored Natural Recovery (EMNR) sand containing active carbon. The results of the sampling and remediation approaches shall be documented in a report to be reviewed and approved by the District, RWQCB, and any other appropriate regulatory agencies.

OR

(2) Internal Jetting. This method includes a jet pipe running the length of the pile where the water exits at a small-diameter port at the bottom of the pile and a high-pressure water line is attached near the top tip of the pile. The high-pressure water shall reduce the skin friction between the pile and the marine sediments and avoid the creation of a large hole and a significant amount of turbidity. Turbidity curtains shall completely surround each pile from the top of the pile to the Bay floor and be placed no more than 2 feet from the pile. At the conclusion of the internal jetting, the project proponent shall conduct sediment sampling of representative areas of potential disturbance near the locations of the piles, consistent with the sampling approach set forth in the SAP, above. If the sediment samples show concentrations of sediment contamination above the Sediment Characterization, the project proponent shall delineate the extent of cross-contamination and propose remediation approaches (subject to approval by the District and any other agencies with jurisdiction over site contamination) that may include, but are not limited to, dredging, placement of sand cover, or EMNR sand containing active carbon. The results of the sampling and remediation approaches shall be documented in a report to be reviewed and approved by the District, RWQCB, and any other appropriate regulatory agencies.

- Spudding. If spuds are used, then when lifted during in-water construction, they shall be lifted slowly at least a quarter of the speed they are lifted during normal operation of spuds. Before the spud reaches the subsurface of the Bay floor during deployment, the operator shall pause the spud lift for 1- to 2-minute intervals to reduce the disturbance of Bay sediment. At the conclusion of the marina construction, the project proponent

shall conduct sediment sampling of representative areas of potential disturbance from spudding and other construction activities that may have disturbed the Bay floor within the project footprint, consistent with the sampling approach set forth in the SAP, above. If the sediment samples show concentrations of sediment contamination above the Sediment Characterization, the project proponent shall delineate the extent of cross-contamination and propose remediation approaches (subject to approval by the District and any other agencies with jurisdiction over site contamination) that may include, but are not limited to, dredging, placement of sand cover, or EMNR sand containing active carbon. The results of the sampling and remediation approaches shall be documented in a report to be reviewed and approved by the District, RWQCB, and any other appropriate regulatory agencies.

MM-HAZ-7: Compliance with Federal and State Permits: No Impedance of Investigative Order No. R9-2017-0081. Prior to in-water construction, the project proponent shall obtain all federal and state permits required for in-water construction activities and demonstrate to the District compliance with all permit conditions during in-water construction. In addition, the project proponent shall not impede the District's compliance with Investigative Order No. R9-2017-0081 as it pertains to the project site.

Level of Significance after Mitigation

With implementation of **MM-HAZ-1** through **MM-HAZ-4**, **Impact-HAZ-1** would be reduced to less-than-significant levels because safeguards would be taken during landside construction to ensure upset and accident conditions do not occur, and effects in the event of an unanticipated upset condition would be minimized. However, while implementation of mitigation measures **MM-HAZ-5** through **MM-HAZ-7** would minimize potential impacts associated with sediment contamination (**Impact-HAZ-2**), it is still possible that in-water construction activities for the marina expansion could be located within areas with contaminated sediment. Additionally, approval of the methods for in-water construction are within the jurisdiction of the RWQCB and/or other federal and state agencies, and not the District. As such, while the District has required measures to minimize impacts associated with contaminated sediment, the RWQCB and/or other federal and state agencies have final regulatory authority to approve specific methods for in-water construction. Consequently, **Impact-HAZ-2** would be significant and unavoidable.

Operational impacts would be less than significant because regular operations of a hotel, lower-cost visitor-serving hotel, and retail would generate a minimal amount of hazardous materials and because of the existing regulations and regulatory agency oversight.

Threshold 3: 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.

Impact Discussion

The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of a school. As mentioned under Section 4.7.2, *Existing Conditions*, the closest school to the project site is the Monarch K-12 School, which is approximately 0.58 mile west of the proposed project. No impact would occur.

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. No impact would occur.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

No impact would occur.

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 not create a significant hazard to the public or the environment.

Impact Discussion

As discussed in Section 4.7.3.2, the lists compiled pursuant to Government Code Section 65962.5 (or the Cortese list) include a variety of hazardous waste facilities and contaminated sites. As shown in Table 4.7-2, the project site would be located on open contaminated sites or unpermitted waste (e.g., sediment contamination due to the Campbell Shipyard sites and soil contamination due to the onsite landside TPH-impacted soils area and the landside PAH zone). If not properly handled, these contaminated soils and sediments could result in a release of hazardous materials into the environment, exacerbating the existing hazardous condition (**Impact-HAZ-1** and **Impact-HAZ-2**) during the construction of the proposed project, including the proposed utility improvements.

During construction a portion of the construction staging would occur off site at the R.E. Staite equipment staging site. Other than employee parking and equipment staging, no improvements or construction activities would occur at this staging site. Therefore, construction staging for the proposed project would not create a significant hazard to the public or the environment.

Level of Significance Prior to Mitigation

Implementation of the proposed project potentially would 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:

Impact-HAZ-1 and **Impact-HAZ-2**, as discussed under Threshold 2 above.

Mitigation Measures

For **Impact-HAZ-1**:

Implement **MM-HAZ-1** through **MM-HAZ-4** as described under Threshold 2 above.

For Impact-HAZ-2:

Implement **MM-HAZ-5** through **MM-HAZ-7** as described under Threshold 2 above.

Level of Significance after Mitigation

With implementation of **MM-HAZ-1** through **MM-HAZ-4**, **Impact-HAZ-1** would be reduced to less-than-significant levels because safeguards would be taken during landside construction to ensure upset and accident conditions do not occur, and effects in the event of an unanticipated upset condition would be minimized. However, while implementation of mitigation measures **MM-HAZ-5** through **MM-HAZ-7** would minimize potential impacts associated with sediment contamination (**Impact-HAZ-2**), it is still possible that in-water construction activities for the marina expansion could be located within areas with contaminated sediment. Additionally, approval of the methods for in-water construction are within the jurisdiction of the RWQCB and/or other federal and state agencies, and not the District. As such, while the District has required measures to minimize impacts associated with contaminated sediment, the RWQCB and/or other federal and state agencies have final regulatory authority to approve specific methods for in-water construction. Consequently, **Impact-HAZ-2** would be significant and unavoidable.

Operational impacts would be less than significant because regular operations of a hotel, lower-cost visitor-serving hotel, and retail would generate a minimal amount of hazardous materials and because of the existing regulations and regulatory agency oversight.

Threshold 5: The proposed project would 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, as a result, would exacerbate an existing safety hazard for people residing or working within the vicinity of the project area.

Threshold 6: The proposed project would not be located within the vicinity of a private airstrip, and, as a result, would not exacerbate an existing safety hazard for people residing or working within the vicinity of the project area.

Impact Discussion

As described in Section 4.7.2.4, *Proximity to Airports and Airstrips*, the closest airport to the proposed project site is SDIA. The project site is not within the SDIA Airport Safety Compatibility Zones; however, it is within AIA Review Area 2 (San Diego County Regional Airport Authority 2014). The project site is also approximately 2.0 miles from Naval Air Station North Island, though airport influence and safety data are not available because the San Diego County Regional Airport Authority is currently preparing the ALUCP for this airport. The project site is not located within the vicinity of a private airstrip.

FAA conducted an aeronautical study for the proposed project, which determined that the proposed project would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities, with the implementation of the following conditions (FAA 2016): (1) the market-rate hotel tower is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting,

red lights - Chapters 4, 5 (Red), & 12; (2) any failure or malfunction that lasts more than 30 minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen can be issued; and (3) FAA Form 7460-2, Notice of Actual Construction or Alteration, is e-filed if the project is abandoned or within 5 days after the construction reaches its greatest height. However, FAA has not yet completed a determination for the use of a crane during construction, which is proposed to be approximately 50 feet higher than the proposed market-rate hotel tower. In addition, the ALUC requires that an application for consistency determination be submitted for its review prior to construction.

Therefore, because the project site is located within an airport land use plan, the proposed project could affect the safe and efficient utilization of the navigable airspace by aircraft or the operation of air navigation facilities due to the height of construction and operational equipment and structures. This could exacerbate an existing safety hazard for people residing or working within the vicinity of the project site (**Impact-HAZ-3**).

Level of Significance Prior to Mitigation

Implementation of the proposed project potentially would exacerbate an existing safety hazard for people residing or working within the vicinity of the project site because of the site's location within an airport land use plan and proposed construction and operational structures. Potentially significant impact(s) include:

Impact-HAZ-3: Exacerbate an Existing Safety Hazard for People Residing or Working within the Vicinity of the Project Site. Because the project site is located within an airport land use plan, the proposed project could affect the safe and efficient utilization of the navigable airspace by aircraft or the operation of air navigation facilities due to the height of construction and operational equipment and structures. This could result in a safety hazard for people residing or working within the vicinity of the project site.

Mitigation Measures

MM-HAZ-8: Obtain ALUC and FAA Formal Review and Determination. Prior to initiation of project construction, the project proponent shall obtain FAA approval and ALUC review and determination for construction equipment and operational structures.

Level of Significance after Mitigation

With implementation of **MM-HAZ-8**, **Impact-HAZ-3** would be reduced to a less-than-significant level because FAA approval and ALUC review and determination would ensure that construction and operation of the proposed project would not affect the safe and efficient utilization of the navigable airspace by aircraft or the operation of air navigation facilities.

Threshold 6: The proposed project would not 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 proposed project construction, a Transportation Demand Management Plan would be implemented to reduce construction worker-generated traffic at several intersections (see Section 4.12, *Transportation, Circulation, and Parking*, for specifics), which would maintain emergency access to the proposed project and nearby properties, including the offsite construction staging site. Moreover, as discussed in Section 4.11, *Public Services and Recreation*, police and fire response times are not anticipated to be affected by the proposed project.

In addition, the proposed project would be required to comply with applicable requirements set forth by the County of San Diego Office of Emergency Services Operational Area Emergency Plan, the City of San Diego Police Department, and the City of San Diego Fire Department. The Office of Emergency Services coordinates emergency response at the local level in the event of a disaster, including fires. This emergency response coordination is facilitated by the Operational Area Emergency Operations Center and responding agencies to the project site. Therefore, impacts during construction would be less than significant.

Operation

As discussed in Section 4.11, *Public Services and Recreation*, police and fire response times are not anticipated to be affected by the proposed project. In addition, the proposed project does not include characteristics (e.g., permanent road closures) that would physically impair or otherwise interfere with emergency response or evacuation in the project vicinity, and the proposed project would be in compliance with the Operational Area Emergency Plan. Impacts during operation would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 7: The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including in areas where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands by exacerbating the existing hazardous conditions.

Impact Discussion

Implementation of the proposed project would not exacerbate existing conditions such that people or structures would be exposed to a significant risk of loss, injury, or death involving wildland fires. The proposed project is in a densely developed portion of the City of San Diego and immediately adjacent to the San Diego Bay. The California Department of Forestry and Fire Protection's Fire Hazard Severity Zones are identified using a science-based and field-tested computer model that assigns a hazard score based on the factors that influence fire likelihood and fire behavior. Factors considered include fire history, existing and potential fuel (natural vegetation), flame length, blowing embers, terrain, and typical weather for the area. The proposed project site is not within a Very High Fire Hazard Severity Zone (CAL FIRE 2009). Therefore, no impact would occur.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands by exacerbating the existing hazardous conditions. No impacts would occur.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

No impacts would occur.

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 degrade water quality, (2) substantially deplete groundwater supplies or interfere substantially with groundwater recharge, (3) substantially alter the existing drainage pattern of the site resulting in flooding or erosion; (4) contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems, (5) place housing within a 100-year flood hazard area, (6) place structures within a 100-year flood hazard area that would impede or redirect floodflows, (7) expose people or structures to a significant risk of loss, injury, or death involving flooding, and (8) contribute to inundation by seiche, tsunami, or mudflow. The environmental setting information and analysis in this section are partly based on the information from the Stormwater Quality Management Plan prepared for the proposed project, dated December 22, 2016, and the Preliminary Drainage Report prepared for the proposed project, dated December 22, 2016. These technical reports are hereby incorporated by reference and included as Appendices I-1 and I-2, respectively, of this Draft EIR.

Pursuant to the recent 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 will 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 will first determine if there is a potential for the project to exacerbate the issue. If evidence indicates it would not, then the analysis will 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.

Table 4.8-1. Summary of Significant Hydrology and Water Quality 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-HWQ-1: Potential to Violate Water Quality Standards or Waste Discharge Requirements for the Waterside Improvements	MM-HWQ-1: Marina Best Management Practice Plan and Copper Reduction Measures	Less than significant	MM-HWQ-1 would reduce impacts related to marina operations and landside boater activities by preparing a Marina Best Management Practice Plan that would be used to minimize the pollutant load from marina boating and landside activities and by requiring implementation of copper reduction measures to reduce the impact from copper-hulled boats.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
	MM-HWQ-2: Water Quality Sampling for Total and Dissolved Copper		MM-HWQ-2 would reduce impacts related to copper loading associated with the operation of the marina. MM-HWQ-2 requires a water quality sampling plan to develop a baseline for total and dissolved copper, and requires ongoing water quality monitoring for total and dissolved copper. If results are exceeded, no additional occupants or development can occur until the copper is reduced.
Impact-HWQ-2: Potential to provide Substantial Additional Sources of Polluted Runoff for the Waterside Improvements	MM-HWQ-3: Marina Design Measures to Promote Tidal Flushing	Less than significant	MM-HWQ-3 is proposed to maintain adequate tidal flushing within the expanded marina for water quality purposes. MM-HWQ-3 requires the proposed project to maximize the flushing rate and promote circulation within the marina to prevent the buildup of pollutants from stormwater discharges.

4.8.2 Existing Conditions

This section describes the hydrology and water quality settings of the proposed project site.

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 San Diego Bay Watershed, which is within the Pueblo San Diego HU. 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 2015). 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 are Chollas Creek, Paleta Creek, and San Diego Bay (San Diego RWQCB 2016a). Most of the water from the Pueblo HU drains 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.

4.8.2.2 Surface Water Quality

San Diego Bay is the receiving water body for the project site. Water quality in San Diego Bay is influenced by processes and activities that take place within the Pueblo San Diego watershed. The creeks in the watershed are highly affected by urban runoff, such as contaminants from roadways, industry, and other urban sources. Stormwater runoff, urban runoff, and sewer spills have led to high concentrations of coliform bacteria, resulting in beach advisories in the Pueblo San Diego HU (Project Clean Water 2015). 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 2017).

As shown in Table 4.8-2, water bodies with 303(d)-listed impairments with potential to be affected by the proposed project include San Diego Bay, San Diego Bay shoreline near Marriott Marquis San Diego Marina (directly north of the project site), and San Diego Bay shoreline near Switzer Creek (directly south of the project site), based on the 2012 California Integrated Report (State Water Resources Control Board 2012). The adjacent Marriott Marquis San Diego Marina is currently impaired for copper and is considered a copper hot spot (District 2017a). Copper from anti-fouling hull paints, which are paints that help prevent barnacles, algae, and other sea life from clinging to the hulls of boats, can be a significant source of water pollution in marina basins. Copper damages marine life by impeding or altering its development (District 2017b). In addition to the adjacent Marriott Marquis San Diego Marina, San Diego's Shelter Island Yacht Basin, approximately 3.2 miles northwest of the project site, is also impaired for copper. The RWQCB added Shelter Island Yacht Basin to the list of impaired water bodies because of its high concentrations of dissolved copper from marina boats and in 2005 adopted a total maximum daily load (TMDL) for Shelter Island that requires the Port, marinas, yacht clubs, hull cleaners, and boaters to reduce copper loading in Shelter Island Yacht Basin by 76% by 2022 (District 2017a). The District developed a Copper Reduction Program, which has since identified safer alternatives to copper anti-fouling paints, adopted in-water hull cleaning regulations that will reduce or eliminate copper pollution caused by in-water hull cleaning activities, supported proposed state legislation to eliminate copper in marine antifouling paint, and provided copper education and outreach to the marinas and yacht clubs (District 2017c). Similar management practices can be implemented by the proposed project.

Table 4.8-2. 303(d)-Listed Impairments for Water Bodies within the Project Vicinity

Reach	303(d)-listed Impairments	Source	TMDL Completion Date
San Diego Bay Shoreline, near Switzer Creek	Chlordane	Unknown	Est. 2019
	PAHs	Unknown	Est. 2019
San Diego Bay	PCBs	Unknown	Est. 2019
San Diego Bay Shoreline, near Marriott Marquis San Diego Marina	Copper	Unknown	Est. 2019
Source: State Water Resources Control Board 2012			
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. 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. Teledyne Ryan Aeronautical Facility also cleaned its landside facility and storm drains. These actions abated the effects of historic PCB discharges into Convair Lagoon. However, the Bay remains impaired (San Diego RWQCB 2013).

The San Diego Bay Shoreline near Switzer Creek is currently impaired for chlordane and polycyclic aromatic hydrocarbons (PAHs). Chlordane was used as a pesticide in the United States from 1948 to 1988. Chlordane was used against insects on food and non-food agricultural crops, residential lawns and gardens, and in buildings. It was particularly used against termites in a variety of buildings, including homes. Chlordane uses were canceled based on concerns regarding its potential to cause cancer and its slow breakdown in the environment. Chlordane breaks down slowly in the environment and can accumulate in living organisms. The proposed project would not result in the addition of chlordane to the Bay. PAHs 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. In response to this contamination, the San Diego RWQCB has initiated efforts to develop a TMDL for this site (San Diego RWQCB 2017).

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, concrete pathways, landscaped areas, a public washroom facility, and a one-story commercial building for a security staffing business. The receiving water body for surface flow from the project site is the Bay. A large portion of the existing parking lot drains via overland sheet flow into the Bay or through an existing underground storm drain system. Based on review of the City of San Diego's municipal separate storm sewer system (MS4) Inventory Map (City of San Diego 2015) and Port of San Diego's MS4 Map (District 2015), the project site is underlain by both City and Port of San Diego (tenant-influenced) storm drain lines that discharge directly to the Bay. Only one of the systems (a 15-inch drain) discharges onsite drainage from a portion of the project site's parking area. Refer to Figure 4.8-1.

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Figure 4.8-1
Storm Drain Map
Fifth Avenue Landing Project

4.8.2.4 Groundwater

The project site is in the Sweetwater Valley Groundwater Basin (Basin Number 9-17). The total surface area of the basin is approximately 5,910 acres or 9.3 square miles. The basin underlies an alluvial valley that empties into the Bay. The basin is bounded on the east by impermeable Santiago Peak volcanic rocks. The northern and southern boundaries are Pliocene to Pleistocene semi-permeable terrestrial deposits, which constitute the valley walls. The western boundary is the Bay (DWR 2004).

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 National 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. 06073C1885G, the landside of the project site is outside the FEMA 100-year floodplain (FEMA 2012). However, the waterside portion of the project site 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 and flood hazard factors are determined). Refer to Figure 4.8-2.

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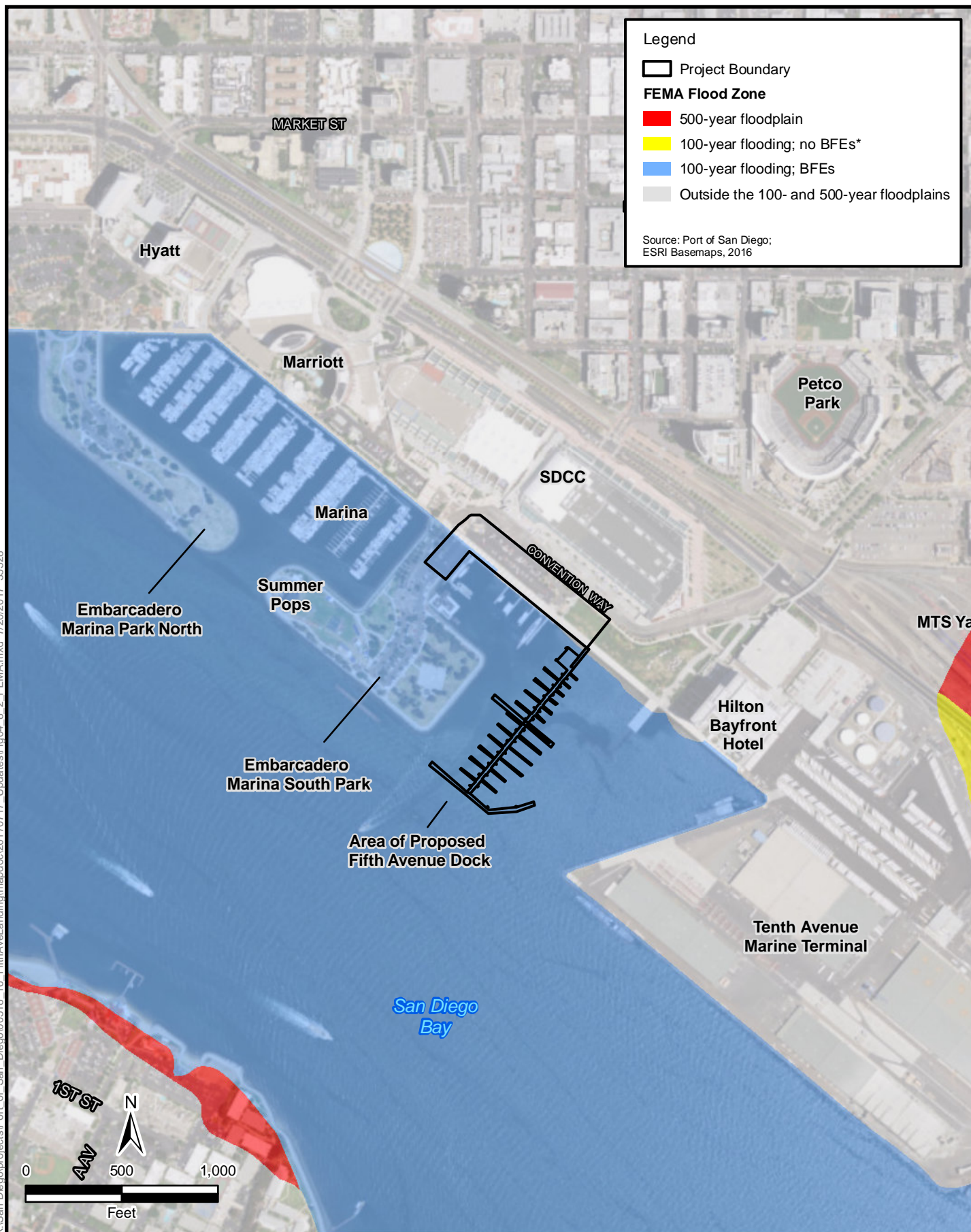


Figure 4.8-2
Flood Zone Map
Fifth Avenue Landing Project

Storm Surges, Tsunamis, and Seiches

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 and within the San Diego Bay, approximately 2 miles west of the Bay opening 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. The project site is partially within a designated tsunami hazard zone; the waterside portion is within the tsunami zone and small portion of the landside frontage of the project site is within the designated tsunami hazard zone (Department of Conservation 2009). Furthermore, the County of San Diego tsunami map identifies a portion of the project site as being within a potential tsunami flood area (San Diego County 2016).

A seiche is an oscillation of a body of water. Seiches occur most frequently in enclosed or semi-enclosed basins such as lakes, bays, or harbors and may be triggered by strong winds, changes in atmospheric pressure, earthquakes, tsunami, or tides. The project site is within San Diego Bay and directly adjacent to a marina, which are both semi-enclosed water bodies.

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 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 Section 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 TMDL. A TMDL 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 will address both an update to the 303(d) list and a 305(b) assessment of statewide water quality. The SWRCB developed a statewide 2012 California Integrated Report based upon the Integrated Reports from each of the nine RWQCBs. The 2012 California Integrated Report was approved by the SWRCB at a public hearing on April 8, 2015, and EPA issued its final decision and approval on July 30, 2015.

All of the 303(d) listed impaired waters with potential to be affected by the proposed project will 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 proposed project would be required to comply with the local NPDES Permit.

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 proposed project is not anticipated to require a Section 404 Permit from USACE for the marina expansion.

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 proposed project would require a Section 401 Permit from the SWRCB for the marina expansion.

Section 10 of Rivers and Harbors Act of 1899

The Rivers and Harbors Act 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.

The proposed project would require a Section 10 Permit from USACE for the marina expansion.

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 (Order 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, 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 proposed project 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 2016b). 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 2016b).

Because of the project site's location, the receiving waters are limited to the 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 2016b). Table 4.8-3 includes a summarized list of these water quality constituents that received narrative or numerical concentration objectives. Surface water and groundwater Quality Objectives for the Pueblo San Diego HU are shown in Table 4.8-4. 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 4.8-3. Water Quality Constituents

Bacteria – Total coliform, fecal coliform, E.Coli, and enterococci	pH
Biostimulatory Substances	Phenolic Compounds
Boron	Radioactivity
Chlorides	Secondary Drinking Water Standards ²
Color	Sediment
Dissolved Oxygen	Sodium
Floating Material	Sulfate
Fluoride	Suspended and Settleable Solids
Inorganic Chemicals ¹	Tastes and Odors
Iron	Temperature
Manganese	Total Dissolved Solids
Methylene Blue–Activated Substances	Toxicity
Nitrate	Toxic Pollutants ³
Oil and Grease	Trihalomethanes
Organic Chemicals	Turbidity
Pesticides	Un-Ionized ammonia

Source: San Diego RWQCB 2016b

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 Total Maximum Daily Load (TMDL) has been adopted to address this impairment.

Table 4.8-4. Surface- and Groundwater Quality Objectives

	Constituent (mg/L or as noted)											Turb NTU	Color Units	F
	TDS	Cl	SO ₄	% N	N&P	Fe	Mn	MBAS	B	ODOR				
Surface Water Quality Objectives														
Pueblo San Diego	--	--	--	--	--	--	--	--	--	None	20	20	-	
Groundwater Quality Objectives														
Sweetwater HU	1,500	500	500	60	45	0.3	0.15	0.5	0.75	None	5	15	1.0	

Source: San Diego RWQCB 2016b

B = boron; Cl = chlorine; F = fluoride; Fe = iron; HA = hydrologic area; MBAS = methylene blue activated substances; Mn = manganese; N = nitrogen; N&P = nitrogen and phosphorus; SO₄ = sulfate; Turb NTU = turbidity (reported in nephelometric turbidity units).

RWQCB Municipal Permit (Order No. R9-2013-0001)

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 issued 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 and other “copermittees” to develop watershed based Water Quality Improvement Plans (WQIPs). The Municipal Stormwater Permit emphasizes watershed program planning and program outcomes. The intent of the 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 [Water Quality Improvement Plan] numeric goals.

The proposed project 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).

Temporary Groundwater Extractions Permit (Order No. R9-2007-0034)

Order No. R9-2007-0034 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 shall not, separately or jointly with any other discharge, cause violations of certain water quality objectives in San Diego Bay.

The proposed project would be required to comply with Order No. R9-2007-0034 requirements if dewatering is required during construction.

San Diego Bay Watershed Quality Improvement Plan

The Municipal Stormwater Permit requires the development of the San Diego Bay WQIP. The purpose of the WQIP is to guide the District and other Phase I Municipalities' Jurisdictional Runoff Management Program (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.

This project would be required to follow any specific actions or BMPs set forth in the WQIP.

Jurisdictional Runoff Management Program

Under the Municipal Stormwater Permit, each jurisdiction is to prepare a JRMP. Each JRMP must contain a component that addresses issues related to construction activities and a component that addresses issues related to existing development. Additionally, each copermittee 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 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 the 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.

This project would be required to follow all specific actions or BMPs set forth in the JRMP.

BMP Design Manual

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 is consistent with the *Model BMP Design Manual* (District 2016) that was developed collectively with the other San Diego County jurisdictions. 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.

The hierarchy for implementing pollutant control BMPs on a PDP is as follows: the standard for stormwater pollutant control is retention of the 24-hour 85th percentile stormwater volume, defined as the event that has a precipitation total greater than or equal to 85% of all daily storm events larger than 0.01 inch over a given period of record in the project area (design capture volume). For situations where onsite retention of the design capture volume is technically not feasible, biofiltration must be provided to satisfy specific standards. For situations where biofiltration is technically not feasible, flow-through treatment BMPs must be implemented on site and the developer must participate in an alternative compliance project.

Site design decisions may influence the ability of a PDP to meet applicable performance standards for pollutant control and hydromodification management BMPs. For example, the layout of the site

drainage and reservation of areas for BMPs relative to areas of infiltrative soils may influence the feasibility of capturing and managing stormwater. Infiltration shall be avoided in areas with:

- Physical and chemical characteristics (e.g., appropriate cation exchange capacity, organic content, clay content, and infiltration rate) that are not adequate for proper infiltration durations and treatment of runoff for the protection of groundwater beneficial uses.
- Groundwater contamination and/or soil pollution, if infiltration could contribute to the movement or dispersion of soil or groundwater contamination or adversely affect ongoing cleanup efforts, either on site or down-gradient of the project.

If infiltration is under consideration for one of the above conditions, a site-specific analysis should be conducted to determine where infiltration-based BMPs can be used without adverse impacts.

The depth to seasonally high groundwater tables (normal high depth during the wet season) beneath the base of any infiltration BMP must be greater than 10 feet for infiltration BMPs to be allowed. The depth to groundwater requirement can be reduced from 10 feet at the discretion of the approval agency if the underlying groundwater basin does not support beneficial uses and the groundwater quality is maintained at the proposed depth.

Concentration of stormwater pollutants in runoff is highly dependent on the land uses and activities present in the area tributary to an infiltration BMP. Likewise, the potential for groundwater contamination due to the infiltration BMP is a function of pollutant abundance, concentration of pollutants in soluble forms, and the mobility of the pollutant in the subsurface soils. Therefore, infiltration BMPs must not be used for areas of industrial or light industrial activity unless source control BMPs to prevent exposure of high-threat activities are implemented, or runoff from such activities is first treated or filtered to remove pollutants prior to infiltration.

Project applicants 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 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.

The proposed project is a PDP, and 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 and
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. Harvesting 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), biofilter, and/or provide flow-through treatment of 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.

The Municipal Stormwater Permit prioritizes the use of retention BMPs either as "harvest and use" or through infiltration. Full infiltration may be potentially determined to be infeasible due to high groundwater at the project site. When infiltration is infeasible, biofiltration must be considered and requires a BMP minimum footprint of 3% of the site area. If biofiltration is not feasible, then flow-through BMP plus participation in alternative compliance is the remaining option. Participation in alternative compliance requires construction of a BMP off site to treat an equivalent pollutant load.

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.

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 particular project must be site specific, seasonally appropriate, and construction phase appropriate. Notwithstanding seasonal variation, projects occurring during the dry season will 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 strategy PO-13, the District requires sites to cover construction material stockpiles that contain metals, such as treated timber during wet weather. Table 4.8-5 provides a list of the minimum BMPs for construction sites.

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.

Table 4.8-5. 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)
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) 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) 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 ^a (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) ^b 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

BMP Category	BMP
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)
Run-on and Runoff Control	Compost Socks and Berms (SE-13)
	Protect site perimeter to prevent run-on from entering the site and site runoff

Source: District 2015.

^a 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.

^b 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).

San Diego Unified Port District, Article 10

The District's Article 10, the District 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.

Where enforcement is required to maintain compliance, the District will use its enforcement authority established by Article 10. Article 10 of the Port Code 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. The ordinance further requires the use of BMPs for all persons. 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 proposed project's marina area 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 will 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.

4.8.4 Project Impact Analysis

4.8.4.1 Methodology

Impacts were analyzed qualitatively based on professional judgment in light of the project design and based on information from the SWQMP prepared for the proposed project, dated December 22, 2016, and the Preliminary Drainage Report prepared for the proposed project, dated December 22, 2016. These technical reports are included as Appendices I-1 and I-2, respectively, of this Draft EIR.

The analysis focused on issues related to surface water hydrology, groundwater, flood hazards, and water 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 in the Bay and to the existing marina layout 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, operation of the marina was 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 constructing 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 construct 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 and modified to reflect the Supreme Court's recent guidance and 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 and the recommendations of qualified personnel at 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. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade existing water quality.
2. Substantially deplete groundwater supplies or 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.
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 substantially increase the rate or amount of surface runoff in a manner that would result in: (1) substantial erosion or siltation on or off site; or (2) flooding on or off site, substantially affecting the existing environment.
4. 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.
5. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map such that the existing environment is substantially affected.
6. Place within a 100-year flood hazard area structures that would impede or redirect flood flows such that the existing environment is substantially affected.
7. Expose people who are already present or structures already in existence to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.
8. Contribute to inundation by seiche, tsunami, or mudflow.

4.8.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would violate any water quality standards or waste discharge requirements or otherwise substantially degrade existing water quality.

Impact Discussion

Landside Construction Phase

Construction activities associated with the proposed project such as pavement removal, demolition, grading and excavation, filling and compaction, offsite utility improvements, and construction of above-ground facilities and buildings could degrade water quality by resulting in increased polluted stormwater runoff. In case of heavy rain or wind conditions, when the project site is excavated or otherwise disturbed by construction activities, the potential for 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 the Bay. Erosion and sedimentation affects 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 in the receiving water body, which could contribute to degradation of water quality. As such, construction activities could violate water quality standards or waste discharge requirements 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.

The proposed project would disturb more than 1 acre of land. Therefore, 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 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 4.8-5. 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 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 installing erosion control 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. 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 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 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. 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. The SWPPP would be prepared by a Qualified SWPPP Developer and approved by the District prior to commencement of construction activities. With SWPPP implementation, the District's stormwater requirements, local grading ordinances, and other related regulatory requirements, impacts from construction on water quality would be less than significant, and no mitigation is required. With implementation of construction BMPs, as required by the Construction General Permit and District's JRMP, the proposed project's potential to affect water quality would be reduced.

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 and District'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.

Marina Construction Phase

Construction of the expanded marina facilities and breakwater would result in short-term water quality impacts associated with the construction of the new piles and dock and breakwater. Placement of pile structures and the breakwater could temporarily affect water quality if water quality protection measures were not implemented. Proposed pile and breakwater placement in the marina would result in the short-term disturbance of localized sediments. As is typical for marina projects, 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. 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. Nonetheless, while the impacts are expected to be short term, Phase I of the marina expansion would be constructed over a period of 6 to 9 months. It is assumed that Phase II of the marina expansion would be constructed at a separate time, approximately 5 years after the Phase I marina expansion and market-rate hotel is completed. Similar to Phase I, Phase II of the marina expansion would also take approximately 6 to 9 months to construct. Therefore, site-specific turbidity levels may be above ambient levels within a portion of the expanded marina for an extended period. 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 a few hundred yards of 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 to several tidal exchanges. 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 proposed project would be required to obtain from USACE a Section 10 permit for the placement of piles and docks and breakwater 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. A Section 10 permit would be required to be obtained prior to initiating construction activities for the marina. USACE would 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 proposed project 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 the Bay, 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 U.S. 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 and turbidity barriers along with trash booms. Silt curtains and turbidity barriers are designed to deflect and 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 parcel is approximately 218,470 square feet with 175,300 square feet of impervious surfaces. The proposed project would increase the impervious surfaces on the project site by 18,540 square feet for a total of 193,840 square feet, with 24,630 square feet of pervious surfaces. Commercial uses generate pollutants that could impair water quality if not treated prior to discharge. Typical pollutants associated with commercial uses include but are not limited to suspended solids, pathogens, nutrients, pesticides, organic compounds, trash/debris, oxygen-demanding substances, and oil and grease. Typical pollutants associated with parking include heavy metals; however, the existing use of the project site is a parking lot and the proposed project would not result in additional pollutant input as a result of parking. While the increase in impervious cover associated with the proposed project is not substantial compared to existing conditions, the change in land use from a parking lot to a hotel and promenade uses could increase the amount of pollutants generated on site that could run off during a storm event. The result may (further) impair receiving waters. Therefore, the proposed project could result in potentially significant impacts related to a violation of water quality standards or waste discharge requirements.

The District's Article 10 (Stormwater Management and Discharge Control Ordinance) and the 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. 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

would be considered a PDP and required to implement pollutant control BMPs, following the hierarchy described in the District's BMP Design Manual (retention, partial retention with biofiltration, biofiltration, or flow-through with participation in an Alternative Compliance Program). Stormwater pollutant control BMPs are engineered facilities that are designed to retain (i.e., intercept, store, infiltrate, evaporate, and evapotranspire), biofilter, and/or provide flow-through treatment of stormwater runoff generated on the project site. Minimum BMPs consistent with the District BMP Design Manual require the use of site design BMPs and source control and pollutant control BMPs. 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 would prepare a project-specific SWQMP for approval by the District 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. Implementation of site-specific LID features and pollutant control BMPs, in accordance with the JRMP, 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 JRMP and identified in the project-specific SWQMP, which would document that all permanent source control and site design BMPs have been considered for the project and implemented where feasible; document the planning process and the decisions that led to the selection of structural BMPs; provide the calculations for design of structural BMPs to demonstrate that applicable performance standards are met by the structural BMP design; identify O&M requirements of the selected structural BMPs; and identify the maintenance mechanism for long-term O&M of structural BMPs (District 2015). The SWQMP must be provided with the first submittal of project drawings for review and approval by the District. A draft SWQMP has been prepared for the proposed project (Appendix I-1) and identifies that the project would retain as much runoff as possible within the green roof and the landscaping areas along the proposed public plaza and park areas. In addition, modular wetland proprietary biofiltration units would be utilized throughout the project site to ensure proper treatment of stormwater to remove pollutants prior to discharge into the Bay. 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.

Marina Operation

Expanded marina operations and boater activities have the potential to significantly impair water quality in the long term if appropriate water quality protection measures are not implemented by boaters and marina employees (**Impact HWQ-1**). 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 2017c). Copper has been a standard ingredient in hull paints for many decades, and the paint has caused exceedances of water quality standards throughout the 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 2017c). The San Diego Bay shoreline near Marriott Marquis San Diego Marina, which is directly adjacent to and north of the project site, is currently impaired for copper as a result of the marina boats and is listed on the SWRCB 303(d) list of water quality impairments for copper. In addition, there is an existing TMDL for copper for the Shelter Island Yacht Basin located northwest of the project site in the Bay.

The proposed project would result in an expanded marina with up to 50 new slips that, combined with the existing 12 slips, would total up to 62 slips. The addition of 50 large boats that all have the high potential to contain copper hull paint would result in an overall contribution to the existing copper impairment within the Bay and would be directly adjacent to the existing copper impairment associated with Marriott Marquis San Diego Marina. While the Marriott Marquis San Diego Marina and proposed marina would be physically separated by a seawall barrier, the proposed project would effectively contribute additional pollutants and expand this existing impairment within the Bay (**Impact-HWQ-1**). Mitigation measure **MM-HWQ-1** is proposed to reduce impacts on water quality associated with the operation of the marina. **MM-HWQ-1** requires development of a Marina Best Management Practice Plan and copper reduction measures, which would identify the specific use restrictions, which must be in compliance with the recommendations from the District's *San Diego Bay Boaters Guide* (District 2006), and the California State Parks Division of Boating and Waterways and the California Coastal Commission Boating Clean and Green Program (California DBW 2017). In addition, the Marina Best Management Practice Plan would include consideration of an incentive structure within the docking agreements' rent rates for use of non-copper paints and identification of copper-free zones within the innermost portions of the marina, or limiting copper paint boats to only well-flushed zones of the marina. Furthermore, the Marina Best Management Practice Plan would limit the number of in-slip hull cleanings per year. The Marina Best Management Practice Plan would ensure implementation of the District-adopted in-water hull cleaning regulations, which require regular monitoring and inspection to reduce or eliminate copper pollution caused by in-water hull cleaning activities. The Marina Best Management Practice Plan would also provide copper education and outreach to the marina occupants (District 2017c).

To evaluate the effectiveness of the Marina Best Management Practice Plan and copper reduction measures over the operational lifetime of the marina, mitigation measure **MM-HWQ-2** is proposed. **MM-HWQ-2** requires the project proponent to monitor and, if necessary, reduce the impact of copper loading associated with the operation of each phase of the marina. **MM-HWQ-2** requires the

project proponent to conduct water quality sampling to develop a baseline for total and dissolved copper prior to the construction of the marina. **MM-HWQ-2** further requires ongoing water quality monitoring for total and dissolved copper over the course of marina development and at various stages of occupancy for each phase of marina development. Phase I would add 23 new marina slips, ranging in size from 50 feet to 200 feet, that would be constructed at the same time as the proposed hotel. Phase II of marina development would provide an additional 27 slips, ranging in size from 50 feet to 240 feet, that would be constructed when market conditions allow, approximately 5 years after the hotel is in operation. **MM-HWQ-2** requires water quality monitoring of the marina after 50% occupancy and again after 75% occupancy, and yearly after full occupancy (95% slips under rental agreements). If at any time during water quality monitoring of the marina the water quality equals or exceeds the Basin Plan water quality objectives, further development and/or marina occupancy must cease until additional BMPs identified by the District are employed and reduce the copper levels in the marina to meet Basin Plan water quality objectives. Water quality testing would occur every year following full occupancy of each phase of the marina or until the marina is fully occupied by non-copper hulled boats.

Level of Significance Prior to Mitigation

Construction and operation of the landside portion of the proposed project would not violate any water quality standards or waste discharge requirements with compliance with the District's JRMP, District's BMP Design Manual, and Construction General Permit for the landside improvements, and would not otherwise substantially degrade existing water quality. Impacts would be less than significant.

Construction of the marina portion of the proposed project would not violate any water quality standards or waste discharge requirements with compliance with the Construction General Permit and regulatory permit requirements associated with Rivers and Harbors Act Section 10 and CWA Section 401, which would be required from USACE and RWQCB, respectively. Operation of the marina portion of the proposed project would violate water quality standards and/or waste discharge requirements associated with the existing copper impairment in the Bay, and would otherwise substantially degrade existing water quality. Potentially significant impacts include:

Impact-HWQ-1: Potential to Violate Water Quality Standards or Waste Discharge Requirements for the Waterside Improvements. Expanded marina operations and boater activities have the potential to significantly impair water quality in the long term.

Mitigation Measures

For **Impact-HWQ-1**:

MM-HWQ-1: Marina Best Management Practice Plan and Copper Reduction Measures. To reduce potential impacts on water quality, the project proponent shall prepare a Marina Best Management Practice Plan that shall be reviewed and approved by the District specifically identifying best management practices that will be used within the Marina to (1) minimize the pollutant load of runoff, including measures to prevent, eliminate, and/or otherwise effectively protect water quality of the Bay and (2) reduce inputs of total and dissolved copper resulting from increased berthing of boats. The Marina Best Management Practice Plan and Copper Reduction Measures shall be reviewed and approved by the District prior to the opening of marina operations. The Marina Operator shall be responsible for implementation and maintenance of the Marina Best Management Practice Plan and Copper Reduction Measures. At

a minimum, the Marina Best Management Practice Plan shall include, but not be limited to, the following:

- Use of educational materials to be provided to boat owners and their crews that specify types of activities that shall be avoided or types of BMPs that shall be implemented in order to protect water quality, such as emptying of septic tanks and refueling only at approved locations, respectively. Recommendations to reduce oil leaks include conducting periodic maintenance of all fuel lines, hoses, and gaskets; putting an oil-absorbent pad in the bilge; and installing a filtration system to remove oil from bilge water.
- Docking agreements containing specific use restrictions to prevent degradation of water quality, such as restricting boat repairs and cleaning operations within the marina. These specific use restrictions shall be similar to the recommendations from the *San Diego Bay Boaters Guide* (District 2006) and the California State Parks Division of Boating and Waterways and the California Coastal Commission Boating Clean and Green Program (California DBW 2017), both of which promote environmentally sound boating practices to marine business and boaters in California.
- Implementation of an incentive structure within the docking agreements' rent rates for occupants with non-copper hull paint boats.
- Identification of copper-free zones within the innermost portions of the marina, or limitation of copper hull paint boats to only well-flushed zones of the marina.
- Hull bottom scraping and the use of toxic detergents to clean vessels would be prohibited, and no overwater repairs would be allowed.
- Implementation and monitoring of the District-adopted in-water hull cleaning regulations. Ordinance No. 2681 requires the use of BMPs for businesses doing in-water hull cleaning. The In-Water Hull Cleaning Permit is a Bay-wide permit to reduce or eliminate copper pollution caused by in-water hull cleaning activities.
- Limitations on in-slip hull cleaning (restrict or limit number of cleanings per year).
- No fueling on site.

MM-HWQ-2: Water Quality Sampling for Total and Dissolved Copper. Prior to the commencement of marina development, the project proponent shall conduct water quality sampling to develop an updated baseline for total and dissolved copper as follows:

- Develop a sampling and analysis plan that will be reviewed and approved by the District prior to sampling. The plan shall identify a minimum of three points, denoting edges and midpoint of marina footprint.
- Sample for total and dissolved copper. The project proponent shall use an Environmental Laboratory Accreditation Program (ELAP)-certified laboratory for all analytical testing.
- Compare dissolved copper levels to Basin Plan water quality objectives.
- The project proponent shall submit the baseline monitoring report to the District for its review and approval.

The project proponent shall conduct ongoing water quality monitoring and testing for total and dissolved copper, following the process outlined above for the updated baseline sampling, over

the course of marina development/occupancy at the following frequency for each phase of marina development:

- After 50% occupancy,
- After 75% occupancy, and
- After full occupancy (95% slips under rental agreements).

Reports of all monitoring and testing results shall be prepared and paid for by the project proponent and submitted to the District's Development Services Department for review and approval within 30 days after the occupancy milestones identified above.

If at any time during monitoring the water quality equals or exceeds or the Basin Plan water quality objectives and comparison with the updated baseline indicated that the exceedance is a result of the proposed project, the project proponent shall immediately notify the District's Development Services Department and shall immediately cease further development and/or occupancy until additional BMPs addressing the issue are employed and reduce the copper levels.

Water quality testing shall occur every year following full occupancy of the marina or until the marina is fully occupied by non-copper hulled boats. The project proponent shall prepare written reports of the water quality testing results annually and submit the reports to the District's Development Services Department for review and approval within 30 days after the end of each calendar year. Any exceedance attributed to the proposed project (based on a comparison with the updated baseline assessment) shall require additional BMPs if determined necessary to reduce total and dissolved copper to below the Basin Plan water quality objectives.

Level of Significance after Mitigation

Implementation of **MM-HWQ-1** would require marina operators to implement measures that would reduce pollutant load runoff and reduce inputs of copper from boat berthing. In addition, **MM-HWQ-2** would require ongoing monitoring of water quality to ensure that marina operations do not equal or exceed the Basin Plan water quality objectives and to identify additional BMPs if this occurs. With these mitigation measures, impacts would be less than significant.

Threshold 2: Implementation of the proposed project would not substantially deplete groundwater supplies or 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.

Impact Discussion

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. Groundwater is present at approximately 9 to 14 feet below the ground surface (approximately 0 to -5 feet below mean sea level), roughly corresponding to the water level in the San Diego Bay. Groundwater beneath the project site is largely seawater; while the proposed project would replace a portion of the existing landscape pervious surface that contributes to groundwater recharge, it 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 because the

groundwater is mainly seawater infiltrating the soils under the project site. As such, groundwater recharge would not be reduced by the proposed project. 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.

Construction of the proposed project would not require permanent dewatering; however, short-term dewatering may be necessary during construction of the foundations for the market-rate hotel tower and its related project elements. Discharge of groundwater into storm drains and receiving waters has the potential to significantly affect water quality. The proposed project would comply with dewatering requirements imposed by the San Diego RWQCB general waste discharge requirements for discharges from temporary groundwater extraction and similar waste discharges to San Diego Bay (Order No. R9-2015-0013). To obtain coverage under this order, a discharger must submit a complete Notice of Intent application package to the San Diego RWQCB office at least 60 days before proposed commencement of the discharge. The project proponent 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). For example, the permit has effluent limitations for settleable solids, total suspended solids, turbidity, chronic toxicity, pH, and a number of additional parameters. In addition, Order No. R9-2015-0013 identifies the monitoring and reporting program requirements. The purpose of the monitoring and reporting program is to determine and ensure compliance with effluent limitations and other requirements established in the order, assess treatment efficiency, characterize effluents, and characterize the receiving water and the effects of the discharge on the receiving water. The San Diego RWQCB may specify increased monitoring requirements as necessary to ensure that applicable water quality objectives are maintained in the receiving water. Any dewatering or construction-related non-stormwater discharges would be controlled in compliance with the San Diego RWQCB permit for dewatering. 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.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not substantially deplete groundwater supplies or 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. Impacts would be less than significant.

Mitigation Measures

No mitigation is 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 substantially increase the rate or amount of surface runoff in a manner that would result in: (1) substantial erosion or siltation on or off site; or (2) flooding on or off site, substantially affecting the existing environment.

Impact Discussion

Implementation of the proposed project would not substantially alter the existing drainage pattern of the project site or increase peak flows and runoff volumes (Project Design Consultants 2016) that could result in increased erosion or siltation on or off site. For the proposed conditions, drainage would remain generally the same (Project Design Consultants 2016). The proposed project would result in an increase of 18,540 square feet of impervious surfaces compared to the existing condition; 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 retain (i.e., intercept, store, infiltrate, evaporate, and evapotranspire) stormwater runoff generated on the project site. The proposed drainage strategy includes draining the proposed roof drains toward the inland side of the building for treatment prior to discharge into the existing storm drains via new proposed storm drain connections and laterals (Project Design Consultants 2016). In addition, the proposed project would discharge directly to the 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. 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 marina drainage pattern would not be altered as part of the proposed project. The additional boat slips in the marina would result in a net increase in floating dock area of approximately 57,696 square feet 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 waters. Therefore, the proposed project would not increase storm water flows into the marina. As such, impacts would be less than significant; no mitigation measures are required.

Level of Significance Prior to Mitigation

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 substantially increase the rate or amount of surface runoff in a manner that would result in: (1) substantial erosion or siltation on or off site; or (2) flooding on or off site. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 4: Implementation of the proposed project would 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

Anticipated pollutants of concern expected from operation of the proposed project would be typical of commercial uses, restaurants, roads, parking areas, 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 the project site drainages discharge into the San Diego Bay in the location of the proposed marina expansion. The overall proposed drainage strategy includes draining the proposed roof drains toward the inland side of the building. The roof drainage would tie into the existing storm drains via new proposed storm drain connections and laterals. For the proposed conditions, drainage would remain generally the same, with two major changes. One existing outfall would be demolished during the construction of the hotel, and these drainage areas would be rerouted into another existing storm drain. The proposed hotel drainage would be broken up into segments for treatment purposes and then routed into the respective systems after treatment prior to discharge. The proposed project would continue to discharge directly into San Diego Bay, similar to existing conditions. The proposed project is considered a PDP in accordance with the District's JRMP. As a PDP, the proposed project would be required to implement post-construction BMPs through the preparation and implementation of a project-specific SWQMP. The proposed project would implement site design, source control, and pollutant control BMPs consistent with the Port's JURMP and BMP Manual, as described previously under Section 4.8.3.3, *Local/Jurisdictional Runoff Management Program*. The JRMP requires 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 (District 2015). 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 2015). The groundwater depth varies from 6–8 feet below existing ground elevations, and, as such, the project site is in a no-infiltration condition given the adjacency to the Bay, depth of groundwater, and the need to maintain the integrity of the foundation and bulk head.

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 draft SWQMP (Appendix I-1) has been prepared for the project and identifies that the project would retain as much runoff as possible within the green roof and the landscaping areas along the proposed public park plaza. In addition, modular wetland proprietary biofiltration units would be utilized throughout the project site to ensure proper treatment of stormwater discharges to the Bay. 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.

While development of the proposed project would include implementation of pollutant control BMPs that would remove pollutants to the maximum extent practicable prior to discharge into the Bay, other storm drains from outside the project site would continue to discharge through the same project-site storm drains and into the Bay. In other words, pollutants generated outside the project site would continue to discharge into the Bay via the shared outlets at the project site. With the addition of the proposed marina expansion and breakwater, tidal flushing within the marina interior could be reduced compared to existing conditions (**Impact-HWQ-2**). Proper flushing is necessary to ensure that the water quality within the marina is maintained.

Water quality within a marina basin depends on how well the basin is flushed, which depends on water circulation within the marina. Water movement is controlled by tides and influenced by currents. A potential decrease in flushing within the interior of the marina could prevent pollutants or excess nutrients from being carried out to sea (**Impact-HWQ-2**). This decrease in water circulation can lead to pollutants and debris concentrating in poorly flushed corners or in secluded areas protected from wind. The water may then become stagnant with offensive odors. Biological activity may decrease and the area may become devoid of aquatic life. Inadequate flushing may also lead to the buildup of sediment within the marina, leading to additional dredging activities.

The proposed marina should be designed so that the structures do not significantly restrict the natural circulation of water caused by tidal action. The degree of flushing necessary to maintain water quality in a marina should be balanced with safety, vessel protection, and sedimentation. The physical configuration of the proposed marina as determined by the orientation of the marina toward the natural water flow can have a significant effect on the flushing capacity of the waterway. Mitigation measure **MM-HWQ-3** requires the proposed project to be designed to maximize the flushing rate and promote circulation within the marina. For example, the design of the expanded marina should be such that the bottom of the marina and the entrance channel are not deeper than adjacent navigable water unless it can be demonstrated that the bottom will support a natural population of benthic organisms. Otherwise, isolated deep holes where water can stagnate may be created. Lower layers in basins can act as traps for fine sediment and organic waste and exhibit low dissolved oxygen concentrations. **MM-HWQ-3** is proposed to maintain adequate tidal flushing within the expanded marina.

Level of Significance Prior to Mitigation

Implementation of 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 for the landside portion of the proposed project. Impacts would be less than significant.

Implementation of the proposed marina may provide substantial additional sources of polluted runoff. Potentially significant impacts include:

Impact-HWQ-2: Potential to Provide Substantial Additional Sources of Polluted Runoff for the Waterside Improvements. The proposed marina expansion and breakwater have the

potential to significantly impair water quality in the long term. The proposed marina expansion and breakwater could reduce tidal flushing and prevent pollutants or excess nutrients from being carried out to sea.

Mitigation Measures

For **Impact-HWQ-2**:

MM-HWQ-3: Marina Design Measures to Promote Tidal Flushing. To reduce potential impacts on water quality, prior to the commencement of any construction of the marina, the project proponent shall design the marina so that structures do not significantly restrict the natural circulation of water caused by tidal action.

- The expanded marina shall be designed to promote water circulation within the basin. The degree of flushing necessary to maintain water quality in a marina shall be balanced with safety, vessel protection, and sedimentation.
- Flushing rates shall be maximized by proper design of the marina entrance channel and basin.
- Prior to marina construction, a qualified engineer shall conduct a marina flushing analysis using an applicable tidal or hydrodynamic model to determine if sufficient flushing is provided by the proposed design or if forced flushing is necessary to enhance the flushing rate of the marina to meet Basin Plan water quality objectives. The engineer shall provide recommendations for forced flushing if determined necessary. The analysis methodologies and results shall be reviewed and approved by the District prior to marina construction.

Level of Significance after Mitigation

Mitigation measure **MM-HWQ-3** requires the design of the marina to promote water circulation within the basin, which would promote tidal flushing and reduce impacts related to concentrated pollutants and debris that would result from operation of the marina. Impacts would be less than significant.

Threshold 5: Implementation of the proposed project would not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map such that the existing environment is substantially affected.

Impact Discussion

CEQA does not require an analysis of how the existing environmental conditions will 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 placing housing within a 100-year flood hazard area that would impede or redirect flood flows, the analysis will first determine if there is a potential for the project to exacerbate the issue. If evidence indicates it would not, then the analysis will 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.

As shown in FEMA FIRM No. 06073C1885G, the waterside portion of the project site 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 and flood hazard factors are determined). However, the proposed project does not include the placement of housing within the 100-year flood hazard area. The proposed structures placed within the 100-year flood hazard area are discussed under Threshold 6.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not place housing within a 100-year flood hazard area such that the existing environment is substantially affected. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 6: Implementation of the proposed project would not place within a 100-year flood hazard area structures that would impede or redirect flood flows such that the existing environment is substantially affected.

Impact Discussion

As shown in FEMA FIRM No. 06073C1885G, the landside portion of the project site is outside the FEMA 100-year floodplain. The proposed structures on the landside portion of the project site would not be within a 100-year flood hazard area. However, the waterside portion of the project site 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 and flood hazard factors are determined). The portion of the project site located over the Bay would be within Flood Zone AE (i.e., waterside). Therefore, the analysis below only discusses the potential for waterside flooding.

Construction

During construction activities associated with implementation of the proposed project, construction equipment would be mobile and could move to higher ground if needed. Thus, the temporary presence of the construction-related equipment would not represent a permanent change to the floodplain, and would not impede or redirect flood flows. Any open excavation occurring associated with utilities or soil removal for foundation preparation may serve to capture stormwater and impede its flow if unprotected; however, BMPs would be in place to divert runoff away from the construction site and toward proper drainage locations. Therefore, because construction of the proposed project would not exacerbate the flooding potential of the project site or the effects of flooding on the existing environment, impacts during construction would be less than significant.

Operation

All structures proposed within Flood Zone AE must be designed to ensure that the floor elevation is raised at least 1 foot above the floodplain elevation and meets the structural requirements of FEMA to avoid any damage to persons or structures as a result of a 100-year flood. Approval of all

permanent structure design plans by the District's Engineering Department and the City of San Diego's Engineering Section (of the Development Services Department) (for the landside portion only) is a standard requirement to issue a grading and building permit. As this process is mandatory, no mitigation is needed. Moreover, flooding is typically a condition that occurs when the volume of water exceeds the capacity of the waterway channels or when tidal waters are pushed inland by coastal storms. As a result of the project location over San Diego Bay, the project site is unlikely to flood due to capacity of the waterway and is more vulnerable to tidal waters that are pushed inland by coastal storms. The proposed project includes construction of a breakwater with wave attenuation panels, which would reduce the potential for tidal waters to be pushed on land. However, the proposed project would not exacerbate this existing condition. Potential impacts resulting from flooding due to sea level rise are discussed in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

Therefore, because the proposed project, during operation, would not exacerbate the flooding potential of the project site or the effects of flooding on the existing environment, impacts during operation would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not place within a 100-year flood hazard area structures that would impede or redirect flood flows. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 7: Implementation of the proposed project would not expose people who are already present or structures already in existence to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Impact Discussion

As discussed under Thresholds 3 and 6, construction and operation of the proposed project would not alter drainage that could increase flooding, nor would it impede or redirect flood flows. While structures would be located 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. Potential impacts resulting from flooding due to sea level rise are discussed in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving flooding. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 8: Implementation of the proposed project would not contribute to inundation by seiche, tsunami, or mudflow.

Impact Discussion

Landside

As previously discussed, the proposed project site 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 would be similar to the existing conditions and would not increase the potential of seiche or 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 (San Diego County 2016).

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 the Bay, likely only resulting in sheet flow around the project site (District 2012). 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 is consistent with nearby land uses along the bayfront. As a result, proposed project conditions would be similar to existing conditions in terms of inundation, and the proposed project would not exacerbate inundation by seiche or tsunami. Although inundation from a tsunami or seiche is possible, it is unlikely; if it were to occur, damage would likely be limited to ground floor water damage with sufficient warning to evacuate all people at the project site. Consequently, while it is reasonably foreseeable that inundation from a tsunami or seiche could occur, the proposed project would not exacerbate the hazard on existing facilities; any associated impacts would be less than significant.

With regard to mudflow, the potential for large-scale slope instability at the site that could lead to mudflow is not present at the project site. The project site is located on flat topography. Impacts would be less than significant.

Waterside

Although extremely rare, a tsunami or seiche could cause damage to the marina facilities and docked boats. However, the expanded marina would not exacerbate the potential for a tsunami or the resulting damage to the existing conditions. Moreover, there is an established warning system in place that would provide early notification of an advancing tsunami that would allow for evacuation. Therefore, potential impacts on from flooding caused by a tsunami or seiche would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not contribute to inundation by seiche, tsunami, or mudflow. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

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 site and related laws, such as the California Coastal Act (CCA). 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 (1) compatibility with surrounding development, (2) consistency with applicable plans and regulations, such as the Port Master Plan (PMP) and CCA, including Chapter 3 and 8 policies and guidance on sea-level rise (SLR), and (3) potential to conflict with any applicable habitat conservation plan or natural community conservation plan. With regard to SLR, this section focuses on whether or not 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. A full analysis of the proposed project's potential climate change impacts is included in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

Table 4.9-1 summarizes the significant impacts and mitigation measures discussed in Section 4.9.4.3, *Project Impacts and Mitigation*.

Table 4.9-1. Summary of Significant Land Use 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: Potential Inconsistency with the PMP Due to Displacement of Five Designated Vista Areas	Implement MM-AES-4 , Designated Public Vista Areas	Less than significant	MM-AES-4 would involve the identification of five new vista areas within the project site that would be similar locations to those identified in the PMP. With implementation of this mitigation, the project would be consistent with the PMP.
Impact-LU-2: Potential for Insufficient Wayfinding and Accessibility Signage to Inform Public that Public Plaza and Park Areas Are Available for Public Use and Enjoyment Related to Impact-PS-3	Implement MM-PS-1 , Operation Requirements for the Multifunctional Plaza and Lawn, Public Park Plaza, and Public Park Plaza and Public Observation Terrace Areas, and MM-AES-2 , Install Wayfinding and Public Accessibility Signage	Less than significant	Implementation of mitigation measures would reduce this impact to a less-than-significant level because the public would be aware of the public plaza and park areas, know that they are open to the public, and know how to access them.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-LU-3: Potential Inconsistency with the California Coastal Act's Requirement to Minimize Coastal Hazards through Planning and Development, Resulting in a Physical Impact on the Environment	MM-LU-1: Smart Design Decisions, Future Adaptation Strategies, and Operational Strategies	Less than significant ¹	The smart design decisions, future adaptation strategies, and operational strategies would reduce future building vulnerability, reduce the need for future structural alterations, allow for future structural additions to be constructed as necessary, and reduce the risk of damage to the buildings and its occupants.
Impact-LU-4: Potential Inconsistency with the ALUCP	Implement MM-HAZ-8 , Obtain ALUC and FAA Formal Review and Determination	Less than significant	Obtainment of the FAA and ALUC consistency determinations will ensure that the proposed project is consistent with the ALUCP.

¹ Less than significant with mitigation measures means that the proposed project is consistent with the applicable land use plan, policy, or law including the CCA with implementation of the mitigation measure.

4.9.2 Existing Conditions

The project site occupies land that is under the jurisdiction of the District in the City of San Diego. 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 2015).

The PMP also establishes ten planning districts. The project site is within the PMP's Centre City Embarcadero Planning District (Planning District 3) and the vast majority of the project site, including landside and waterside areas, lies within the Convention Way Basin Subarea (Subarea 36) (see Figure 4.9-1). The optional bridge that would connect the proposed project to the San Diego Convention Center (SDCC) lies within the Marina Zone Subarea (Subarea 35).

4.9.2.1 Existing Port Master Plan Land and Water Use Designations

PMP land use designations within the project site include Commercial Recreation, Park/Plaza, Promenade, Recreational Boat Berthing, Specialized Berthing, and Ship Navigation Corridor. The allowable uses for each are described below. Designated land uses within the project site are shown in Figure 2-3 of Chapter 2, *Environmental Setting*.

- Commercial Recreation – Allowable uses include hotels, restaurants, recreational vehicle parks, specialty shopping, pleasure craft marinas, water-dependent educational and recreational program facilities and activities, a convention center, and sport fishing.

- **Public Recreation (Park/Plaza)** – Allowable uses include park, plaza, landscaping, public fishing piers, boat launching ramps, beaches, historic and environmentally interpretive features, public art, vista areas, scenic roads, bicycle and pedestrian ways, and water-dependent educational and recreational program facilities and activities.
- **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 other related activities.
- **Specialized Berthing** – Waterside designation devoted to marine commercial and industrial uses including ship building and repair, water taxi, excursion and ferry craft, commercial fishing boat berthing as a priority use, cruise ship berthing, maritime museum exhibits and historic craft replicas, water intake and discharge, industrial and commercial launching, vessel loading and unloading, marine contractors, rigged vessels, barges, tugs/tow boats, breakwater, launch ramps and lifts, seawall margin wharves, and any other facility supporting the marine craft engaged in commercial and industrial uses.
- **Ship Navigation Corridor** – Waterside area designated for navigational areas that provide adequate draft for ship maneuverability, safe transit, and access to terminals, anchorages, military bases, and other related facilities.

In addition to the establishing land use designations, the PMP establishes conceptual plans for each subarea of the Precise Plan. As discussed under the Marina Zone Subarea, the concept established by the PMP for the project site involves development of a Phase III expansion of the SDCC, which would include 400,000 square feet of exhibit area; 560,000 square feet of support spaces; meeting rooms and ballrooms; visitor-serving uses, such as retail and museum/gallery space; realignment of Convention Way to be positioned closer to the waterfront; and the development of a 5-acre rooftop public plaza and park area with five vista areas.

4.9.2.2 Existing Community Characteristics

The existing characteristics on the project site and within the surrounding community are described in Chapter 2, *Environmental Setting*. For the reader's convenience, this section restates the existing site conditions provided in Chapter 2 as they apply to land use and planning.

Project Site

The project site consists of a total of approximately 18 acres, with approximately 5 acres of landside area and 13 acres of waterside. The landside area of the project site is an L-shaped parcel, the majority of which is currently occupied by two parking lots. The project site also includes a public restroom, a 30,300-square-foot park/plaza area, the water transportation center (WTC) ticket booth, a temporary mobile trailer office, and a segment of the Embarcadero Promenade—a continuous public waterfront walkway. The waterside portion of the project site includes a 12-slip large vessel marina, a water taxi/ferry dock, and open waters of the San Diego Bay. The project site does not support any native vegetation, but does include turf, trees, and other ornamental plantings. Figure 2-4 in Chapter 2, *Environmental Setting*, presents an aerial photograph of the project site in its existing condition as of August 2016.

Surrounding Community

The project site is along the waterfront in downtown San Diego. The area supports commercial, industrial, recreational, residential, civic, and marine-related land uses. As identified on Figure 2-3 in Chapter 2, *Environmental Setting*, land use designations include commercial recreation, street, recreational boat berthing, specialized berthing, park/plaza, boat navigation corridors, and ship navigation corridors. Multi-family land use designations are located inland to the north/northwest in the City's jurisdiction.

The existing SDCC is located directly north, across Convention Way, of the project site. The SDCC fronts Harbor Drive and has a gross building area of 2,613,465 square feet with a maximum capacity of approximately 125,000 persons. Other land uses to the north of the project site are within the jurisdiction of the City of San Diego and include commercial uses, transit, roadways, and a few residential uses. The Metropolitan Transit System's San Diego Trolley tracks and BNSF tracks lie north of the project site, immediately north of Harbor Drive. The dominant feature north of the trolley tracks is Petco Park, the Padres' baseball stadium, at 100 Park Boulevard. In addition, the 21-story, 511-room Omni Hotel is located to the north as well as the 12-story, 420-room Hard Rock hotel; restaurants; and several multi-family residential structures.

Land uses to the east of the project site are within the jurisdiction of the District and include commercial and industrial uses. The 30-story, 1,200-room existing Hilton San Diego Bayfront Hotel and associated 7-story, 1,859-space parking garage sit adjacent to the eastern boundary of the site, and the Tenth Avenue Marine Terminal abuts the southeastern boundary of the existing Hilton San Diego Bayfront Hotel. Land uses to the west include the Marriott Marquis San Diego Marina, which includes a 25-story, 1,355-room hotel, and an approximately 450-slip marina used for yacht and sailboat docking.

San Diego Bay borders the project site to the south, with existing uses that include a pier on which Joe's Crab Shack restaurant is located inside the San Diego Rowing Club building—a building that is listed on the National Register of Historic Places. Embarcadero Marina Park South (EMPS) is also to the south of the project site. This park offers both active and passive recreational opportunities. The park also is the venue of the San Diego Symphony's Summer Pops concert series.



Figure 4.9-1
Planning District 3: City Centre Embarcadero Planning Subareas
Fifth Avenue Landing Project

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 [CSLC]) for the benefit of all people. All tide and submerged lands, granted or ungranted, as well as navigable rivers, sloughs, etc., are impressed with the Public Trust. The Public Trust Doctrine, as overseen by the CSLC, 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 entire project site 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 PMP Amendment (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 the coast, recreation, marine environment, land resources, development, and SLR. A list of applicable policies and an associated consistency review is provided below in Table 4.9-3.

California Coastal Commission Sea Level Rise Policy Guidance

Adopted in 2015 by the CCC, 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 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 or Coastal Development Permits.

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, and beaches), water quality and supply, cultural resources, community character, and scenic quality. (See Chapter 3 of the CCA 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.) Below is a sampling of the Chapter 3 policies (a non-exhaustive list) that

the proposed project must be consistent with, and such consistency may be affected by SLR. For example, if SLR changes the flooding patterns or increases the flooding of the Tidelands, 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 that are 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 . . .
- 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 . . .
- 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 (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.
- 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.

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 also required by the Port Act, which must specify the land and water uses within the District's jurisdiction.

California State Lands Commission Strategic Plan

The CSLC Strategic Plan (2016–2020), adopted on December 18, 2015, contains strategic goals and key actions designed to guide CSLC in managing and protecting the important natural resources on public lands within the state of California, including the tidelands and submerged lands within the jurisdiction of the District. Strategies applicable to the goals of the proposed project include the following.

Strategy 1.1 – Deliver the highest levels of public health and safety in the protection, preservation, and responsible economic use of the lands and resources under the Commission's jurisdiction.

Key Action 1.1.1 – Incorporate best management practices (BMPs) and other provisions into new and renewed leases to promote public health and safety and protect the environment.

Key Action 1.1.3 – Implement Ballast Water Discharge Performance Standards and biofouling management strategies that prevent the introduction of non-indigenous species into State marine waters.

Key Action 1.1.5 – Refine Mitigation Monitoring Program tracking to ensure lessee compliance.

Strategy 1.2 – Provide that the current and future management of ungranted sovereign lands and resources and granted lands, including through strategic partnerships with trustee ports and harbor districts, is consistent with evolving Public Trust principles and values, particularly amid challenges relating to climate change, sea-level rise, public access, and complex land use planning and marine freight transportation system.

Key Action 1.2.3 – Promote public trust consistent waterfront development and revitalization, addressing sea-level rise and climate change in the planning process.

Strategy 1.3 – Protect, expand, and enhance appropriate public use and access to and along the State's inland and coastal waterways.

Key Action 1.3.1 – Ensure public access to coastal and inland waterways through private and public agency leases.

Strategy 1.4 – Incorporate into the Commission's project analyses and decision-making processes strategies to address climate change, sea level rise, incentivize water conservation, greenhouse gas emissions, and the generation of litter and marine debris into all the Commission's planning processes, project analyses, and decisions.

Key Action 1.4.2 – Coordinate with lessees, grantees and agency partners to implement actions, and where appropriate require lessees, to address impacts of climate change, adapt to sea-level rise, promote and incentivize water conservation, reduce greenhouse gas (GHG) emissions, and reduce generation of marine debris and litter.

4.9.3.2 Regional

San Diego Water Quality Control Plan

The federal Clean Water Act and the California Porter-Cologne Water Quality Control Act (California Water Code Division 7) require that the Regional Water Quality Control Board adopt a water quality control plan to guide and coordinate the management of water quality in the region. The water quality control plan, also referred to as the Basin Plan, sets forth water quality objectives for constituents that could potentially cause an adverse effect on the beneficial uses of water. Specifically, the Basin Plan is designed to accomplish the following: (1) designate beneficial uses for surface and ground waters; (2) set the narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy; (3) describe mitigation measures to protect the beneficial uses of all waters within the region; and (4) describe surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan. The Basin Plan incorporates by reference all applicable State Water Resources Control Board and Regional Water Quality Control Board plans and policies. The proposed project's consistency with these plans and policies is described in Section 4.8, *Hydrology and Water Quality*.

4.9.3.3 Local

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.

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 ten Planning Districts, each of which is guided by a Precise Plan that guides future development.

The proposed project is within the Convention Way Basin subarea, with the optional bridge to the SDCC in the Marina Zone subarea (Subareas 36 and 35, respectively) of Planning District 3: Centre City Embarcadero. The Precise Plan for the Centre City Embarcadero discusses a unified waterfront centered on a pedestrian spine with commercial and recreational activities. The Convention Way Basin Subarea discusses planned projects in the subarea, including development of Phase III of the SDCC and development guidelines for an expansion of the Hilton San Diego Bayfront Hotel. Table 4.9-3 lists the applicable policies and describes the proposed project's consistency with those policies.

South Embarcadero Redevelopment Program 2

The South Embarcadero Redevelopment Program 2 amended the PMP in April 2001, to change land use designations from Marine-Related Industrial and Specialized Berthing to Commercial Recreation, Recreational Boat Berthing, and Park/Plaza in the southernmost portion of the South Embarcadero. The South Embarcadero Redevelopment Program 2 proposed redevelopment of two

areas: the Campbell Industries Shipyard with a San Diego Convention Hotel and the Fifth Avenue Landing/R.E. State Engineering with the Fifth Avenue Landing Hotel (Spinnaker Hotel). Associated documents—the Urban Design and Signage Guidelines, and Public Access Program—are described below.

South Embarcadero Urban Design and Signage Guidelines

The South Embarcadero Urban Design and Signage Guidelines were adopted in 1999, and amended in 2002, to establish a specific identity for the South Embarcadero area while enhancing the visitor's experience of the Bay. The guidelines established four zones to create a unified design character for the area with an overall landscape theme, wayfinding signage program, and minimum design standards for site elements in order to distinguish the South Embarcadero area from other adjacent neighborhoods and districts. Zone #1, the Park Boulevard View Corridor, establishes a vision to provide visual and physical connections to the waterfront from the downtown Ballpark District along with vegetation, lighting, and unique paving to encourage pedestrian and bicycle safety. The role of Zone #2, the 8th Avenue/Convention Way Streetscape, is to create opportunities for pedestrian connections between the Embarcadero Promenade, future waterfront development, and the ferry terminal. Zone #3, Park/Beach, includes two options for recreation opportunities at the project site, including Option A, a park, or Option B, a beach along the bayfront. Zone #4, Public Promenade, calls for a 35-foot-wide promenade connecting to other waterfront areas.

South Embarcadero Public Access Program

Last amended in 2013 as part of the proposed Convention Center Expansion, the South Embarcadero Public Access Program was adopted to implement a multi-modal circulation plan to accommodate pedestrians, bicycles, mass-transit, and automobiles.

The program identifies possible waterfront public recreational opportunities, including public access ways and signage at the following locations.

- Segments 10, 11, and 12—located along the Bay within the western portion of the project site. These areas are identified for land uses and improvements that include a pedestrian walkway, bike path, rollerblading area, environmental education, public art, and handicap accessibility. Other amenities identified include a drinking fountain, payphone, lighting, and signage.
- Pedestrian Bridge—an opportunity for elevated pedestrian access between the EMPS and Harbor Drive is identified between SDCC Phases I and 2.
- 8th Avenue Plaza and Walk—located at the intersection of Harbor Drive and Park Boulevard, this area is identified for a plaza with pedestrian walkway, bike/auto parking, public art, and a bikeway.
- Transit Stop and Public Parking at 8th Avenue and Convention Way—the public access program identifies a 24-space parking lot and bus stop at Convention Way and 8th Avenue (now Park Boulevard).

San Diego Unified Port District Port Master Plan Update

The District is in the process of conducting a comprehensive update of the PMP (Port Master Plan Update or PMPU). While the details of the PMPU are still in the process of being developed, the District adopted on August 12, 2014, under Resolution 2014-167, the Vision Statement and Guiding

Principles that will govern the specific goals, policies, and land use decisions identified in the PMPU. The project's consistency with the Guiding Principles is analyzed in Table 4.9-3.

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 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.

San Diego International Airport Land Use Compatibility Plan

The San Diego International Airport Land Use Compatibility Plan (ALUCP) was adopted on April 3, 2014, and amended on May 1, 2014, with the purpose of promoting compatibility between San Diego International Airport (SDIA) and surrounding land uses. Specifically, the intent of the ALUCP is to protect public health, safety, and welfare in areas around the airport and establishes policies and standards related to noise, safety, airspace protection, and overflight. The ALUCP defines an airport influence area (AIA), which is the boundary in which the ALUCP applies and is the "area in which current and projected future airport-related noise, safety, airspace protection, or overflight factors/layers may significantly affect land use or necessitate restrictions on land use."

The ALUCP establishes two zones within the AIA:

- Review Area 1: the combination of the 60 decibel community noise equivalent level noise contour, the outer boundary of all safety zones, and the Threshold Siting Surfaces (TSSs). A TSS is critical airspace that must be protected to allow for safe approaches to runways. Any objects penetrating the TSS would cause the runway threshold to be further displaced, reducing available landing distances.
- Review Area 2: the combination of the airspace protection and overflight boundaries beyond Review Area 1.

The project site falls within Review Area 2 and requires review by the Airport Land Use Commission (ALUC) because it would propose an increase in height limits at the project site and would introduce a new source of glare. The project will be reviewed by the ALUC and Federal Aviation Administration (FAA) and is required to obtain all necessary determinations prior to construction (**MM-HAZ-8** in Section 4.7, *Hazards and Hazardous Materials*).

4.9.4 Project Impact Analysis

4.9.4.1 Methodology

The proposed project includes the construction and operation of two hotels and amenities, additional public plaza and park areas, expansion of the existing marina, an optional connecting pedestrian bridge, and a PMPA. 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, indirect, and cumulative 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.

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 the 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 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 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.
3. Conflict with any applicable habitat conservation plan or natural community conservation plan.

Moreover, the project site is within the Coastal Zone and, pursuant to Executive Order (EO) 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.

4.9.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would not physically divide an established community.

Impact Discussion

Construction

Construction of the proposed project is anticipated to occur over a 24- to 30-month period. Despite some potential for limited access to and within the project site throughout the 24- to 30-month construction period, pedestrian and bicycle access would be maintained along the Embarcadero Promenade and Convention Way. During construction, the portion of the Embarcadero Promenade that fronts the project site would be temporarily narrowed from 35 feet to 15 feet. However, for approximately 18 months during construction of the market-rate hotel tower lobby, which spans the promenade, pedestrian traffic would be routed along Convention Way. All closures, construction, and delivery schedules would be coordinated with the District and the SDCC. Any disruption would be limited in duration to just the timeframe to complete the construction and ensure the Embarcadero Promenade is safe for use. Moreover, access along Harbor Drive would remain unobstructed and vehicular access to the SDCC, existing Hilton San Diego Bayfront Hotel, and the EMPS would not be restricted as a result of construction activities. Construction of the marina would occur in two phases, with the first phase (construction of approximately 23 slips) occurring during construction of the market-rate hotel tower, and the second phase (construction of approximately 27 slips) being dependent on market conditions, likely 5 years after the market-rate hotel opens. Construction of the marina would entail pile driving that would occur off barges that would be positioned to avoid existing navigation routes for the water ferry service and shipping barges needing to dock at Tenth Avenue Marine Terminal and, as such, would not substantially interfere with the surrounding uses. In addition, construction worker parking and construction staging would occur at the R.E. Staite property located approximately 2.2 miles from the project site. Upon completion of the construction of the proposed project, this property would revert back to a construction equipment staging lot for normal existing operations of this site. Although construction of the proposed project would result in temporary changes to the area, construction activities would not physically divide an established community, and impacts would be less than significant.

Operation

The proposed project would be constructed within the project site and would require demolition of the existing WTC ticket booth and public restroom facility, and removal of the temporary office structure. The proposed project would not require the construction of new roadways or reconfiguration of existing roadways. Land use changes associated with the proposed project, i.e., surface parking lots to mid- to high-rise hotels and public access, would be compatible and consistent with the surrounding community character and existing land uses. The proposed project would be located in the vicinity of other hotels, including the adjacent Hilton San Diego Bayfront Hotel and the Marriott Marquis San Diego Marina, as well as several other hotels in the vicinity, including the Omni and the Hard Rock. These hotels serve the region as well as visitors to the SDCC. As such, the proposed project would be in an area with similar uses and would be compatible with adjacent development and land uses. Furthermore, the proposed public plaza and park areas and the proposed retail adjacent to the Embarcadero Promenade would provide additional amenities for

San Diego visitors and residents alike. Existing pedestrian, bicycle, and vehicular access to the waterfront from surrounding areas would be maintained. In addition, the proposed marina has been designed in coordination with the District's Maritime Department and the San Diego Bay Pilots Association to ensure that operation of the proposed marina would not adversely affect the existing water taxi and ferry routes and would not interfere with shipping vessels traveling to and from the adjacent Tenth Avenue Marine Terminal. In addition, the offsite utility improvements and construction staging/parking would revert back to existing conditions once construction is complete. Therefore, there are no operational aspects of these components of the proposed project. Based on the above, the proposed project would not physically divide an established community.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not physically divide an established community. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 2: Implementation of the proposed project would conflict with an 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.

Impact Discussion

As discussed above, the PMP currently designates the landside portion of the project site as Commercial Recreation and Public Recreation. The waterside portion of the project site is designated as Recreational Boat Berthing, Specialized Berthing, and Ship Navigation Corridor. The underlying designations allow for the proposed project, but the PMP shows the realignment of Convention Way to a location adjacent to the Embarcadero Promenade and the project proposes to keep Convention Way in its current alignment. Therefore, the proposed project would be inconsistent with the PMP and a PMPA would be required to move the Street designation to Convention Way's current alignment and designate that area for Commercial Recreation to allow that portion of the project site to be developed with the proposed hotel and retail uses. In addition, adjustments would be required within the waterside portion of the project site to redesignate the Specialized Berthing and Ship Navigation Corridor area to Recreational Boat Berthing.

Specifically, the proposed PMPA land and water use designation changes would include the following.

- A net increase of 3.4 acres of Commercial Recreation land use designations at the project site.
- A net increase of 5.2 acres and 4.7 acres of Park and Plaza land use designations, respectively, at the project site.

- A net increase of 0.1 acre of Promenade land use designations at the project site.
- A net decrease of 1.9 acres of Street land use designations at the project site.
- A net increase of 11.7 acres of Recreational Boat Berthing water use designations at the project site.
- A net decrease of 5.1 acres of Specialized Berthing water use designations at the project site.
- A net increase of 6.2 acres of Public Recreation water use designations at the project site.
- A net decrease of 6.6 acres of Ship Navigation Corridor water use designations at the project site.

The PMPA is proposed to change portions of the existing land and water use designations and to update the PMP maps, text, and tables to reflect the proposed project and corresponding land and water uses (see Figure 3-19). The proposed PMPA is provided in Appendix C.

Redesignation of these land uses represents minor adjustments to the project site where the proposed land uses already exist or are allowed (e.g., visitor-serving uses, marinas), and with the PMPA the proposed land use designations would be compatible with the existing land uses in the project area, as explained under Threshold 1, above. In addition, the project site currently would allow for development of the SDCC Phase III Expansion and the proposed project would be inconsistent with the PMP because it would preclude the SDCC Phase III Expansion, as previously approved. Therefore, in addition to the adjustments to the underlying land use designations, a PMPA would be required in order to allow for development of the proposed project. However, neither the existing land use designations nor the SDCC Phase III Expansion were adopted with the intent of avoiding or mitigating an environmental effect, and adoption of the proposed PMPA would ensure that the proposed project would be consistent with the land use designations at the project site.

Additionally, as discussed above under Section 4.9.2.1, *Existing Port Master Plan Land and Water Use Designations*, the PMP also designates a rooftop park/plaza and five vista areas for the project site. The proposed project would implement rooftop public plaza and park areas in a similar location as designated in the PMP, and thus would be consistent with this component of the PMP. However, as discussed in Section 4.1, *Aesthetics and Visual Resources*, the proposed project would displace the five designated vista areas, which would be inconsistent with the PMP and would result in a significant impact (**Impact LU-1**).

Furthermore, limited public access for long periods of time due to hotel programming could result in the perception that the entire 1.96-acre public plaza and park area is not open to the public while private events are in session. Additionally, because the rooftop public plaza and park area is raised from ground level, the public may not readily know that these recreational areas are available for public use, which would conflict with CCA policies related to public accessibility to the coastline. As such, without sufficient wayfinding signage, the general public may be unaware of their existence and availability. These impacts would be considered significant (**Impact LU-2**). In general, CEQA currently does not require an analysis of how existing environmental conditions will affect a project's future users or residents (see *California Building Industry Assoc. v. Bay Area Air Quality Management District* [Dec. 17, 2015] Cal.4th). However, 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 will affect a project's future users and infrastructure, particularly in terms of SLR, is addressed in Section 4.6, *Greenhouse Gas Emissions and Climate Change*. However, an analysis of the proposed project's consistency with the CCA, including the CCC's Sea Level Rise Policy

Guidance, is provided herein.

As discussed in Section 4.6, *Greenhouse Gas Emissions and Climate Change*, projected SLR, as an effect of climate change, is expected to increase the number of areas that experience coastal flooding along San Diego Bay. Based on the projections shown in Table 4.6-5, there is the potential for daily bulkhead overtopping at the end of the proposed project's useful life (i.e., 2082, or 66 years) if SLR keeps pace with the "high" projections (see Figures 4.6-1 and 4.6-2 for a graphic depiction). However, after mid-century, projections of SLR become more uncertain. The range of future SLR projections is due in part to modeling uncertainties, but primarily due to uncertainties about future global GHG emissions and uncertainties associated with the modeling of land ice melting rates. Therefore, for projects with timeframes beyond 2050, it is especially important to consider adaptive capacity, impacts, and risk tolerance to guide decisions about whether to use the low or high end of the ranges presented.

In the foreseeable future, the bulkheads would be sufficiently above sea level to prevent any adverse effects from SLR on the landside portions of the project, as shown on Figure 4.6-1. However, future storm surge levels will be more likely to overtop the surrounding bulkheads toward the end of the lease, as shown on Figure 4.6-2. The bulkheads around the project site vary in height from approximately 7–9 feet above existing mean sea level. These bulkheads are the first line of defense against SLR and storm surge. If the bulkheads are breached then water may infiltrate the project site, which could place people or structures at substantial risk of harm. A breach caused by lack of planning based on the best known science would be inconsistent with the guideline to minimize coastal hazards through planning and development standards (**Impact-LU-3**).

Table 4.6-5 and Figures 4.6-1 and 4.6-2 depict the minimum bulkhead elevation compared to SLR and storm surge projections for the 2030, 2050, and 2082 timeframes. As shown in Table 4.6-5 and Figure 4.6-1, the bulkheads should remain sufficiently above the upper end of the daily SLR projections until the very end of the proposed project's useful life (2082). As shown in Figure 4.6-2, when accounting for storm surge events (temporary inundation), the bulkheads would remain sufficiently above SLR and storm surge projections until mid-century, but inundation during storm surges will become more likely as the proposed project moves toward the end of its useful life, which would, again, be inconsistent with the CCA's requirement to minimize coastal hazards through planning and development standards (**Impact-LU-3**).

The waterside portions of the proposed project are designed to accommodate large fluctuations in water levels. In particular, the marina guide piles and gangways are designed to accommodate fluctuations of up to 13 feet over mean lower low water elevations. As shown in Table 4.9-2, this design should sufficiently accommodate the SLR and storm surge projected over the useful life of the waterside facilities.

Table 4.9-2. Sea Level Rise Projections for Marina Expansion

Marina Guide Piles Top Elevation Above Mean Higher High Water¹	High Sea Level Rise Projection at the End of Useful Life (2082)²	100-Year Storm Elevation³	Remaining Marina Guide Pile Elevation above SLR and Storm Surge
7.36 Feet	4.22 Feet	2.4 Feet	0.74 Feet

¹ Based on a stated marina guide pile elevation of 13 feet above mean lower low water and the mean higher high water elevation obtained from: <https://www.portofsandiego.org/maritime/check-port-and-harbor-conditions/424-tides-and-currents.html> (District 2016).

² Based on the linear extrapolation of projections for south of Cape Mendocino. Obtained from: http://www.opc.ca.gov/webmaster/ftp/pdf/docs/2013_SLR_Guidance_Update_FINAL1.pdf (Ocean Protection Council 2013).

³ The 100-year (1% return probability) surge events obtained from: <http://tidesandcurrents.noaa.gov/est/curves.shtml?stnid=9410170> (NOAA 2016).

A comprehensive analysis of the project's consistency with applicable regulations, plans, and policies is provided in Table 4.9-3. As discussed above, there are some aspects of the project that would not be consistent with the PMP and the CCA. However, implementation of the mitigation measures detailed below would ensure consistency with the goals of the PMP, as well as the policies of other land use plans and policies that are applicable to the project site, including the CCA, the CCC's Sea Level Rise Policy Guidance, the South Embarcadero Urban Design and Signage Guidelines, and the South Embarcadero Public Access Program. In addition, as discussed above, the proposed project will be reviewed by the ALUC and FAA and is required to obtain all necessary determinations prior to construction (**MM-HAZ-8** in Section 4.7, *Hazards and Hazardous Materials*); with the obtainment of these determinations, the proposed project would be consistent with the ALUCP. However, if these determinations are not obtained the proposed project would be inconsistent with the ALUCP (**Impact-LU-4**). Therefore, impacts related to consistency with an applicable land use plan, policy, or regulation adopted for the purposes of avoiding or mitigating an environmental effect would be less than significant with the implementation of mitigation.

Level of Significance Prior to Mitigation

If not mitigated, implementation of the proposed project would conflict with an 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, including designated vista areas identified in the PMP, the CCA's requirements to provide public access and to minimize coastal hazards through planning and development standards, and inconsistency with the ALUCP. Potentially significant impact(s) include:

Impact-LU-1: Potential Inconsistency with the PMP Due to Displacement of Five Designated Vista Areas. Implementation of the proposed project would result in the displacement of five vista areas that are currently designated at the project site in the PMP, which would be inconsistent with the PMP.

Impact-LU-2: Potential for Insufficient Wayfinding and Accessibility Signage to Inform Public that Public Plaza and Park Areas Are Available for Public Use and Enjoyment Related to Impact-PS-3. As analyzed in Section 4.11, *Public Services and Recreation*, the proposed project would result in a significant impact if public access is limited within public

plaza and park areas for a long period of time or if there is no wayfinding signage to inform the public that the recreational areas are available.

Impact-LU-3: Potential Inconsistency with the California Coastal Act's Requirement to Minimize Coastal Hazards through Planning and Development, Resulting in a Physical Impact on the Environment. Based on the best available science, the proposed project would place people or structures at risk due to SLR effects over the latter portion of the project's life, which would not minimize coastal hazards (i.e., SLR) and the effect on future amenities and facilities within the Coastal Zone. Therefore, if not mitigated, the proposed project would be inconsistent with the CCA.

Impact-LU-4: Potential Inconsistency with the ALUCP. Implementation of the proposed project would potentially be inconsistent with the ALUCP if an FAA determination and ALUC Consistency Determination are not obtained.

Mitigation Measures

For **Impact-LU-1:**

MM-AES-4: Designated Public Vista Areas. To replace the five public vista areas currently designated on the project site and/or the SDCC Expansion Rooftop park, the PMP Amendment shall include five new public vista points as shown on Figure 3-19; four shall be located along the public observation terrace on the rooftop public plaza and park areas and the fifth shall be located on the west end of the market-rate hotel tower terrace (public observation terrace viewing point, Figure 3-12). These designated vista points shall be delineated with signage and open to the public at all times.

For **Impact-LU-2:**

MM-PS-1: Operation Requirements for the Multifunctional Plaza and Lawn, Public Park Plaza, and Public Park Plaza and Public Observation Terrace Areas. Under no circumstances shall the closure of the public plaza and park areas for private hotel events be more than the following percentages.

- Multifunctional Plaza and Lawn (35,940 square feet): 50% private access (50% public access). This area would be available for private events 50% of the year, which is defined as the equivalent of 182.5 days per year, inclusive of event setup and breakdown time. When not in use for private events, this area would be accessible for use by the public at no cost 50% of the year (182.5 days). For clarification purposes, if a private event occupies the Multifunctional Plaza and Lawn for part of a day, it shall count as occupying the Multifunctional Plaza and Lawn for an entire day when calculating the 182.5-day private event limit.
- Public Park Plaza (39,860 square feet): 15% private access (85% public access). This area would be available for private events 15% of the year, which is defined as the equivalent of 55 days per year, inclusive of event setup and breakdown time. When not in use for private events, this area would be accessible for use by the public at no cost 85% of the year (310 days). For clarification purposes, if a private event occupies the Public Park Plaza for part of a day, it shall count as occupying the Public Park Plaza for an entire day when calculating the 55-day private event limit.

- Public Park Plaza and Public Observation Terrace (6,500 square feet): 0% private access (100% public access). This area would be not be available for private events, and would be open to the public at no cost 100% of the year.

If the private event area is blocked off from the public usable area, such barriers shall not be solid materials but shall be a material like ropes. To ensure the private event area is restored for the public use, all trash and debris shall be immediately picked up and disposed of appropriately during and after the private event.

During times when the Multifunctional Plaza and Lawn area or Public Park Plaza area is open to the public (i.e., during non-private event times), the hours of operation shall be the same as the District's park hours of operation.

During all private events, clear signage shall be placed in publicly visible locations (i.e., not posted inside the hotel) at the grand staircase, market-rate hotel tower staircase, public observation terrace, optional pedestrian bridge (if developed), and two locations along the existing Embarcadero Promenade, that indicate the Multifunctional Plaza and Lawn area and/or the Public Park Plaza areas, if applicable, are open to the public. Clear signage shall be placed at the Public Park Plaza and Public Observation Terrace that indicates it is open to the public.

After project construction is complete, on January 31 of each year, the project proponent shall submit an annual public access usage report to the District's Development Services Department that demonstrates, for the preceding year, that the Multifunctional Plaza and Lawn, Public Park Plaza, and Public Park Plaza and Public Observation Terrace are being used for public access and private access (for private events) as follows and consistent with this **MM-PS-1**:

- Multifunctional Plaza and Lawn (50% public access/50% private access)
- Public Park Plaza (85% public access/15% private access)
- Public Park Plaza and Public Observation Terrace (100% public access)

The report shall be broken down by the Multifunctional Plaza and Lawn and Public Park Plaza areas and shall list the date, private event, start and end times, duration of each event, setup and breakdown time, and total number of days and percentage of private use for that year.

Furthermore, the report shall contain confirmation, such as photographs or a signature by the hotel manager, that for each private event, signage indicating public use of the remaining area (if applicable) was placed consistent with this **MM-PS-1**. For the Public Park Plaza and Public Observation Terrace area, the report shall confirm that this area was accessible to the public 100% of the year and contained signage indicating such.

MM-AES-2: Install Wayfinding and Public Accessibility Signage. Prior to the issuance of occupancy permits, the project proponent shall post wayfinding signage and signage at the grand staircase, market-rate hotel tower staircase, public observation terrace, optional pedestrian bridge, and two locations along the existing Embarcadero Promenade, that directs visitors to the proposed public plaza and park areas on the rooftop of the parking structure and hotel ballrooms as well as the walkway around the market-rate hotel tower (the areas identified as Exterior Areas B, C, and D on Figure 3-12 in Chapter 3, *Project Description*, of the EIR), and designates the areas as available to the public with open hours listed (i.e., 6:00 a.m. to 10:30 p.m.). The project proponent shall submit the signage characteristics (e.g., size, color, materials) to the District's Development Services Department for review and approval. Photo proof of the wayfinding signage and designation signage shall be submitted to the District's Development

Services Department prior to issuance of the certificate of occupancy. In addition, the project proponent shall allow the District to conduct periodic inspections to ensure that this space remains publicly accessible. The wayfinding signage shall clearly direct the public to the public plaza and park areas and public observation terrace and indicate that the space is open to the public except during certain circumstances consistent with the PMPA.

For **Impact-LU-3:**

MM-LU-1: Smart Design Decisions, Future Adaptation Strategies, and Operational Strategies. To reduce potential impacts related to bulkhead overtopping in mid-century during extreme storms, the project proponent shall implement the following into building design and construction, and during operation. Prior to the issuance of building permits for the project, the project applicant shall submit design plans and operational strategies to the District's Development Services Department for its review and approval.

Smart Design Decisions – the project proponent shall incorporate the following into all building design and as part of construction. All building plans shall reflect the designs.

- Place 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. For example, this may include installing backwater valves at building connections or at outfalls, increasing outfall elevations when replacing them, installing forced mains, or increasing pump capacity.
- Ensure that all building exterior walls are composed of materials that have an impermeable and waterproof membrane.

Future Adaptation Strategies – the project proponent shall incorporate the following into all building design and as part of construction. All building plans shall reflect the designs.

- Ensure that building foundations 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.
- If replacing or constructing additional bulkheads, design key structural elements to allow future increases in the elevation of the bulkhead crest.

Contribute a "fair share" payment in an amount to be determined by the District based on an analysis for the cost of construction of future bulkhead improvements that would offer direct flood mitigation benefits to the project site.

Operational Strategies – the project proponent shall implement the following strategies during operation and update the strategies every 5 years using the best available science. A report evidencing the operational strategies shall be submitted to the District's Development Services Department upon opening of the project or first component thereof and every 5 years thereafter.

- Establish an early warning system to monitor the risk of flooding. At a minimum, the early warning system shall 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 regularly checking the water levels along the project bulkhead as the storm progresses.
- Establish emergency evacuation procedures for people to relocate to higher ground on short notice.
- Obtain or execute on-call contracts for backup power generators for critical functions, such as the operation of one elevator and emergency lighting systems. Also obtain or execute on-call contracts for portable pumps, and ensure that there is sufficient fuel to operate these. Establish protocols for operating said generators and pumps during storm events or other such events.
- Before a storm that is forecasted to overtop the bulkheads, deploy sandbags or inflatable barriers. Over time, monitor and track the rainfall amounts and storm projections that result in localized flooding and update the deployment protocol to account for this experience.
- Before a storm that is forecasted to result in localized flooding, test emergency power sources and pumps and ensure that there is sufficient fuel to run these, and inspect building exterior to ensure that there are no penetrations that lack flood proofing. If cracks or leaks are identified, seal them or temporarily cover with a flood-proof material, to the extent feasible, prior to the storm. Over time, monitor and track the rainfall amounts and storm projections that result in localized flooding and update the deployment protocol to account for this experience.
- Restrict public access during storms or flooding events if water levels are forecasted to rise to unsafe levels.

For **Impact-LU-4**:

MM-HAZ-8: Obtain ALUC and FAA Formal Review and Determination. Prior to initiation of project construction, the project proponent shall obtain FAA approval and ALUC review and determination for construction equipment and operational structures.

Level of Significance after Mitigation

Implementation of **MM-AES-4**, **MM-PS-1**, and **MM-AES-2** would reduce **Impact-LU-1** and **Impact-LU-2** to less-than-significant levels because these measures would ensure that the proposed project would be consistent with the PMP, and the public plaza and park areas would be available to the public for the proposed percentages, and, thus, would be consistent with the applicable land use plans and policies. With the implementation of **MM-LU-1**, **Impact-LU-3** would be reduced to a less-than-significant level because the smart design decisions, future adaptation strategies, and operational strategies would reduce future building vulnerability, reduce the need for future structural alterations, allow for future structural additions to be constructed as necessary, and reduce the risk of damage to the buildings and its occupants. These steps would ensure consistency with EO S-13-08 and the CCA by demonstrating consistency with the CCC's 2015 Sea Level Rise Policy Guidance. With the implementation of **MM-HAZ-8**, **Impact-LU-4** would be reduced to a less-than-significant level because the proposed project would be required to obtain necessary

determinations and approvals from the FAA and ALUC to ensure that the proposed project is consistent with the ALUCP.

Threshold 3: Implementation of the proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan.

Impact Discussion

The District retains all land use and mitigation rights and decisions on areas within its jurisdiction, and the protection of biological resources within the District are guided by the PMP. However, the PMP also states that the District will cooperate with other communities and agencies in the area, including implementation of the City of San Diego's Multiple Species Conservation Program (MSCP) or Environmentally Sensitive Lands Ordinance. Although the project site is within the boundaries of the MSCP, the City MSCP Subarea Plan does not identify the Convention Way Basin as being within the Multi-Habitat Planning Area. In addition, no biological resources conservation is planned for the Convention Way Basin as part of the PMP. Furthermore, as detailed in Table 4.9-3, the proposed project would be consistent with the goals and policies of the San Diego Bay Integrated Natural Resources Management Plan to protect the natural resources of the Bay, including the water quality, marine wildlife, birds, and habitats. Therefore, implementation of the proposed project would not conflict with the provisions of an approved local biological resources conservation plan.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Table 4.9-3. Project Consistency with Relevant Goals, Objectives, and Policies

Goal, Policy, Objective	Proposed Project Consistency
Port Master Plan – Section II	
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 provide for the present use and enjoyment of the Bay and tidelands by providing a lower-cost visitor-serving hotel, increasing public plaza and park areas adjacent to the Bay, enhancing the experience along the Embarcadero Promenade with retail opportunities, and expanding the existing marina to include more slips.

Goal, Policy, Objective	Proposed Project Consistency
<p>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.</p>	<p>Consistent. The proposed project would be developed using a similar scale, bulk, and materials to the existing buildings in the area, such as the Hilton San Diego Bayfront Hotel, and would provide approximately 850 new hotel rooms at the market-rate hotel tower and 565 beds within a lower-cost visitor-serving hotel that would meet the demand from events at the SDCC as well as other events in the downtown region. The proposed project would also enhance social opportunities at the bayfront with the addition of public plaza and park areas and retail establishments along the Embarcadero Promenade. 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.</p>
<p>Goal III. The Port District will assume leadership and initiative in determining and regulating the use of the bay and tidelands.</p> <ul style="list-style-type: none"> • 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. 	<p>Consistent. The proposed project would generate employment during both construction activities and operational activities, thus creating temporary and permanent jobs, and would accommodate increased draw for visitors to the bayfront. The hotels would include both higher-end and more affordable options and thus would include a private enterprise that operates at both high and low margins of economic return.</p>
<p>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.</p> <ul style="list-style-type: none"> • 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. 	<p>Consistent. The proposed project would support increased use and capacity of events that are of interest to the public. The project would also accommodate a variety of users, including out-of-town visitors and locals, with increased opportunities for public access to the bayfront and enhancement of the Embarcadero Promenade with increased retail. As such, it would not encourage exclusory uses on tidelines.</p>

Goal, Policy, Objective	Proposed Project Consistency
<p>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.</p> <ul style="list-style-type: none"> Bay fills, dredging and the granting of long-term leases will be taken only when substantial public benefit is derived. 	<p>Consistent. The proposed project would include expansion of the existing marina, which would require modification to the Bay and tidelands with the addition of pile-supported dock space. Expansion of the marina would result in an increase of 13,623 square feet or 0.31 acre of structural fill with the construction of 188 piles and the breakwater for the marina expansion. However, mitigation measures will be implemented to ensure the proposed project does not adversely affect open water habitat function, water quality, wildlife resources, or water circulation (see Sections 4.3, <i>Biological Resources</i>, and 4.8, <i>Hydrology and Water Quality</i>). In addition, the proposed project would create significant public benefit by the inclusion of an 850-room market-rate hotel tower, and a 525-bed lower-cost visitor-serving hotel, and further activation of the Embarcadero Promenade with pedestrian-oriented retail uses.</p>
<p>Goal VI. The Port District will integrate the tidelands into a functional regional transportation network.</p> <ul style="list-style-type: none"> 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. 	<p>Consistent. The proposed project would replace two existing parking lots with two hotels, public plaza and park areas, retail, and 263 parking spaces and would minimize use of a waterfront area for parking purposes. In addition, if the optional pedestrian bridge between the proposed project and the SDCC is approved, the project would provide additional pedestrian linkages to the bayfront as well as a direct pedestrian linkage from the project site to the trolley station on the north side of Harbor Drive.</p>
<p>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.</p> <ul style="list-style-type: none"> 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. 	<p>Consistent. The District will coordinate with the City of San Diego and other agencies with jurisdiction over environmental resources within the 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.</p>
<p>Goal VIII. The Port District will enhance and maintain the bay and tidelands as an attractive physical and biological entity.</p> <ul style="list-style-type: none"> 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. 	<p>Consistent. As discussed in Section 4.1, <i>Aesthetics and Visual Resources</i>, the proposed project would have the potential to block existing panoramic views of the Bay. However, overall the project would be consistent with this goal because it would be designed to be compatible with the site and surrounding uses and would introduce an aesthetically pleasing development to the bayfront that would enliven and enhance the waterfront</p>

Goal, Policy, Objective	Proposed Project Consistency
<ul style="list-style-type: none"> 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. 	<p>experience. In addition, as detailed in Section 4.1, <i>Aesthetics and Visual Resources</i>, the proposed project includes mitigation that requires five new vista areas to be identified in similar locations to the ones that would be displaced under the proposed project. Finally, per the Board of Port Commissioners Policy No. 608, <i>Tenant Percent for Art Program</i>, the project proponent is required to allocate at least 1% of the total construction costs to the art budget or to artwork-related expenses.</p>
<p>Goal IX. The Port District will insure physical access to the bay except as necessary to provide for the safety and security, or to avoid interference with waterfront activities.</p> <ul style="list-style-type: none"> 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. 	<p>Consistent. The proposed project would not interfere with existing access points to the waterfront and it would incorporate increased public plaza and park areas, adjacent to the waterfront through the addition of new public plaza and park areas. While the proposed project would displace five vista areas at the project site, the proposed project includes mitigation measures that require the District to identify five new vista areas within the project site that would offer similar views, as detailed in Section 4.1, <i>Aesthetics and Visual Resources</i>.</p>
<p>Goal X. The quality of water in San Diego Bay will be maintained at such a level as will permit human water contact activities.</p> <ul style="list-style-type: none"> Maintain a program of flotsam and debris cleanup. 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. 	<p>Consistent. The proposed project would involve extension of the existing marina, which could increase the opportunity for debris or pollutants to enter into the Bay. However, per the District’s Jurisdictional Runoff Management Program, the project would be required to incorporate low-impact design features and stormwater pollutant control best management practices, 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 District’s Harbor Safety Plan, which provides mariners with the District’s policies regarding pollution prevention and protection of the region’s resources. Finally, the District would also prepare a marina Best Management Practice Plan for the proposed project that would ensure marina operations would not degrade water quality. These measures would ensure that the water quality of the Bay would be protected during project construction and operation (see Section 4.8, <i>Hydrology and Water Quality</i>).</p>
<p>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</p>	<p>Consistent. As detailed in Section 4.3, <i>Biological Resources</i>, the proposed project would be required to implement mitigation measures such as an</p>

Goal, Policy, Objective	Proposed Project Consistency
<p>ecological necessity, and a valuable and usable resource.</p> <ul style="list-style-type: none"> 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. 	<p>Eelgrass Mitigation and Monitoring Plan in compliance with the California Eelgrass Mitigation Policy, avoiding or mitigating impacts on eelgrass from anchored barges, boat navigation, and propeller wash, and boater education and navigation aids to minimize boater disturbance on eelgrass beds. As a result, the proposed project would not inhibit the protection of any natural plant and animal life in the Bay.</p>
Port Master Plan – Section III (Commercial Land Use Objectives and Criteria)	
<p>Each commercial area on District lands should have:</p> <ul style="list-style-type: none"> convenient access from major arterials or transportation terminals and ample on-site parking for patrons. 	<p>Consistent. The proposed project would have convenient access from Convention Way via Park Boulevard and Harbor Drive, both of which are major arterials. In addition, the project would provide 263 onsite parking spaces in a parking structure in an area heavily served by public transportation. The implementation of a Parking Demand Management Plan would further reduce the need for parking. Consequently, as discussed in Section 4.12, <i>Transportation, Circulation, and Parking</i>, the proposed project would ensure continued access to the waterfront.</p>
<ul style="list-style-type: none"> 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. 	<p>Consistent. As discussed in Section 4.1, <i>Aesthetics and Visual Resources</i>, the components of the proposed project, i.e., the market-rate hotel tower, lower-cost, visitor-serving hotel, the open air promenade and parking structure, and public plaza and park areas, would be designed in a style and with architectural finishes and features that would be consistent with each other and with surrounding uses. This would represent an enhancement of the aesthetic quality of the project site because it would introduce a visually interesting element to a site currently occupied by parking lots.</p>
<ul style="list-style-type: none"> a minimization of the competitive hazard to existing or potential business in the general vicinity. 	<p>Consistent. In making its decision whether to adopt the proposed PMPA, the Board of Port Commissioners will exercise its discretion as to whether the proposed project would minimize the competitive hazard to existing or potential business in the general vicinity.</p>

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<ul style="list-style-type: none"> 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. 	<p>Consistent. The proposed project would contribute to an existing cluster of hotels in the downtown area where there are a high number of visitor draws, such as the SDCC and businesses. The proposed project would help meet demand for lodging in this part of San Diego.</p>
Commercial Recreation Designation	<p>Consistent. Hotels, retail, and restaurants are allowed within the Commercial Recreation land use designation and no inconsistencies would occur with implementation of the proposed project.</p>
Port Master Plan – Section III (Public Recreation Land Use Objectives and Criteria)	
<p>Parks, plazas, public access ways, vista points and recreational activities on Port lands and tidelands should:</p> <ul style="list-style-type: none"> 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 to and about public access ways and recreational areas. 	<p>Consistent. The proposed project would increase the amount of publicly accessible plaza and park areas (1.96 acres) throughout the project site, and, as discussed in this section, would include the development of a contiguous 1-acre park that is required by mitigation to be open to the public the majority of the time, as detailed in Section 4.11, <i>Public Services and Recreation</i>. The project would also include mitigation that requires identification of five new vista areas within the project site to replace existing vista areas that would be displaced by the proposed project. The proposed project would also increase marine recreational assets of the Bay by adding additional slips to an existing large vessel marina. Finally, the proposed project would incorporate wayfinding signage and maps throughout the project site as well as informative displays illustrating the history of the San Diego Bay. The wayfinding signage is also included as mitigation in Section 4.1, <i>Aesthetics and Visual Resources</i>.</p>
Port Master Plan Update Guiding Principles (Values and Standards)	
<p>A. Achieve solidarity among partnering agencies and stakeholders. Establish a long-range vision and Master Plan with implementation strategies that represent the interest of all Californians, all five member jurisdictions, California State Lands Commission, and California Coastal Commission in a balanced, proactive, and deliberate way, which is essential to achieve long term success. As a trustee, the Port has an opportunity and an obligation to meet the needs of the public in the State of California, while protecting Tideland resources of San Diego Bay. The role of the Port goes beyond serving as an agent to manage existing assets and extends to a leadership function on behalf of all Californians both current and future.</p>	<p>Not applicable. The proposed project does not involve the creation of a master plan or long-range vision.</p>

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<p>B. Promote clean air, healthy communities, and environmental justice. Seek to achieve environmental justice which shall be defined as: working to reduce the cumulative health burdens on neighboring communities and ensure fair treatment of people of all races, cultures, and incomes in developing, adopting, implementing, and enforcing environmental laws, regulations, and policies.</p>	<p>Consistent. The proposed project would be designed in accordance with the United States Green Building Council's Leadership in Energy and Environmental Design Silver certification, or an equivalent program, and would implement mitigation to address the project's environmental impacts. These measures would help promote clean air and healthy communities, and would not place disproportionately greater impacts on neighboring communities.</p>
<p>C. Ensure job creation, prudent economic policies, and financial sustainability. Balance economics, available resources and the public good. As the shepherd of public lands and water within the Tidelands, the Port shall require a strategy that outlines investment and costs that consider economic feasibility, long-term financial sustainability and viability for the Port District, broader State and community needs and impacts, while promoting public access, use, and enjoyment of the Bay. Utilize balanced and equitable investments in the tidelands and public realm in infrastructure improvements to create a value proposition for existing and future economic development, business attraction, growth, and public enjoyment of the Bay. Continue to increase revenues and support existing and future entrepreneurial opportunities in concert with Port operations such as, Cruise, Cargo, and Real Estate opportunities considering a progressive economic and business growth strategy</p>	<p>Consistent. The proposed project would result in the creation of new jobs and bring new sources of income and tax revenue to the District and the City. In making its decision whether to adopt the proposed PMPA, the Board of Port Commissioners will consider the economic, financial, and related policy concerns of this objective and will exercise its discretion based on available evidence.</p>
<p>D. Preserve the working Port as a dynamic and thriving element of the region's economy and cultural history. The Port's working waterfront serves an essential role in the region as an economic engine and a job generator. The Bay's history as a commercial center and cultural exchange, facilitated by commerce, are historically important and are reflected in the modern industrial facilities located on the Bay's working waterfront. Protecting the Bay as a shared waterway to promote commerce, navigation, fisheries, national defense, and recreation were foundational to the creation of the Port and will continue to underscore future investment in water-dependent industrial facilities.</p>	<p>Consistent. The project site is adjacent to the Tenth Avenue Marine Terminal, and, as discussed above, the proposed project would not interfere with operations of this facility.</p>

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<p>E. Incorporate state of the art sustainability practices. Consider the long-term impacts of sea level rise and climate change to both land and water resources. Implement principles of resiliency and seek to become a national leader in thought and implementation of these practices. Implement energy conservation and sustainability practices and reduce dependency on carbon-based energy. Promote the health and sustainability of natural resources, and the growth and proliferation of natural ecosystems. Create a sustainable fiscal budget and update it regularly.</p>	<p>Consistent. The project would be designed in accordance with the United States Green Building Council's Leadership in Energy and Environmental Design Silver certification, or an equivalent program, and, as such, would include energy conservation and sustainability measures. In addition, potential impacts related to SLR, climate change, and natural ecosystems have been considered in this EIR with mitigation implemented, where necessary.</p>
Port Master Plan Update Guiding Principles (Planning Principles)	
<p>1. Honor the water. Future decisions shall consider the health of the entire Bay eco-system as a single, multi-faceted entity. Create a water use plan comparable to a land use plan recognizing the value of land assets as a function of their adjacency to different types of water. Use this plan to maximize deep water and dredged resources, recreational opportunities, and natural resource protection. Encourage a variety of activities and entrepreneurial opportunities. Optimize infrastructure for water-dependent uses, organize water transportation routes, guide future decisions regarding infrastructure needs and upland uses adjacent to the Working Port, and integrate natural resources, climate change and water quality policies.</p>	<p>Consistent. The project promotes water-dependent recreational uses and would implement mitigation measures to ensure that project-related impacts on water quality and marine biological resources are less than significant.</p>
<p>2. Guarantee the public realm. Maximize Waterfront Access. The waters of San Diego Bay are the region's precious and shared asset. The design of places along the waters' edge should respond to multiple and different upland conditions and provide access to the public throughout the Bay in a manner that is meaningful and compatible with adjacent uses. These differences range from the full potential of the North Embarcadero as a major destination, to neighborhood places like Shelter Island and the Chula Vista Bayfront, to the working waterfront and the U.S. Navy, the U.S. Coast Guard, and to quiet natural edges along the Silver Strand, Grand Caribe Island and South Bay National Wildlife Refuge.</p>	<p>Consistent. The proposed project would increase waterfront public plaza and park areas at the project site.</p>
<p>3. Celebrate nature and ecology. Establish an Environmental Stewardship Strategy. Celebrate the whole Bay as an inter-related marine, estuarine, and bay ecosystem that is valued, managed, protected, and enhanced for its overall impact on biology, economic prosperity, public use, and enjoyment. Promote the careful integration of water, natural resources, open space, and buildings.</p>	<p>Consistent. The proposed project would integrate waterside and landside uses with open space while respecting natural resources in the project area.</p>

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<p>4. Create a comprehensive open space plan. Establish a plan for a continuous network that connects existing and new waterfront parks, streets, and other open spaces. Integrate this network with the Bayshore Bikeway, existing waterfront streets, and any existing and future ferry routes. Consider planning, programming, maintenance, and enforcement of new parks and water access provisions when making decisions related to open space.</p>	<p>Not applicable. The proposed project does not involve the creation of a comprehensive open space plan. However, the project would implement waterfront public plaza and park areas and would create a new water transportation office to serve the existing water ferry service.</p>
<p>5. Provide easy mobility on land and water. Develop a mobility plan that addresses both land and water transportation in a manner consistent with public health and clean air. Work with appropriate agencies to avoid redundant policies and facilities to create maximum efficiency. Protecting the Bay as a shared navigational waterway is fundamental to the Port and will continue to guide future investments in water transportation. Together, water and land-based transportation infrastructure will help meet the region's mobility needs as part of a single, coordinated, transportation plan that reduces air pollution and promotes access to the Bay in order to facilitate the region's commerce, navigation, fisheries, recreation, and environmental preservation needs.</p> <p>Water transportation should address a range from individual swimmers, kayakers, pleasure boaters, fishing vessels, commercial vessels, ferries, water taxis, cargo, cruise, and naval and public safety vessels. Land transport should address a range from pedestrians, bicyclists, shuttles, autos, buses, light rail, and passenger and freight rail.</p>	<p>Not applicable. The proposed project does not involve preparation of a mobility plan. However, the project would include an expanded marina to accommodate pleasure boaters.</p>
<p>6. Streamline the approval process. Create certainty throughout the approval process by improving efficiency and reducing redundancy and time required for action. Create regulations that clearly define what can be achieved without an amendment process. Use the amendment process when hardship and other conditions apply when conformance cannot be achieved. A land use plan should clearly distinguish public land uses from private land use opportunities. Public land uses include streets, parks, waterfront access corridors, easements, and rights-of-way. Private land uses support leasable land opportunities, define acceptable uses, build-out capacities, development requirements, and required mitigation and environmental compliance policies. The project review and approval process should require conformance to the Master Plan.</p>	<p>Not applicable. The project does not involve any changes to the District's approval process.</p>

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<p>The project review process should fully coordinate with local, state and regional land and water approval agencies to minimize duplication and redundancy. The purpose of implementing a progressive Port Master Plan is to clarify requirements that are flexible, agile, and adaptive to respond to changing economic conditions and needs overtime. Implement and adopt a Port Master Plan that is consistent with the Port Act, State Lands Commission requirements, and the California Coastal Act.</p>	
<p>California Coastal Act</p>	
<p>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.</p>	<p>Consistent. The proposed project would increase public plaza and park areas and recreational opportunities at the project site and would include wayfinding signage and maps. The wayfinding signage is also included as mitigation in Section 4.1, <i>Aesthetics and Visual Resources</i>.</p>
<p>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.</p>	<p>Consistent. The proposed project would maintain the existing Embarcadero Promenade and would not impede access to that resource or to the adjacent EMPS. In addition, the proposed project would add up to 85,490 square feet of new public plaza and park areas to the project site that would be open to the public except for a limited number of special events. Table 3-2 in Chapter 3, <i>Project Description</i>, summarizes the proposed public plaza and park areas and the percentage the area would be available to the public.</p>
<p>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.</p>	<p>Consistent. Public access to the bayfront would be maintained via Convention Way or through the SDCC as well as through new public plaza and park areas and wayfinding signage provided by the proposed project. The wayfinding signage is also included as mitigation in Section 4.1, <i>Aesthetics and Visual Resources</i>.</p>
<p>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.</p>	<p>Consistent. The proposed project would provide 263 parking spaces onsite. In addition, additional public parking is provided within the immediate area, including the adjacent Hilton San Diego Bayfront Hotel Parking garage and the SDCC parking garage. Additional nearby parking locations include, but are not limited to the 6th and K Parkade, 550 J St Parking Garage, the Padres Public Parking Garage, the Autopark Public Parking Garage, and several blocks with on-street parking. All of these facilities are less than 0.5 mile from the project site. As a result, the proposed project would not contribute to overcrowding or overuse by the public of any single area.</p>

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<p>Section 30213. Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.</p> <p>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 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.</p>	<p>Consistent. The proposed project would include a lower-cost, visitor-serving hotel that would provide approximately 565 beds in order to meet the demand for waterfront lodging at a more affordable price point. In addition, the proposed project would add 1.96 acres of new public plaza and park areas to the project site that would be free of charge and open to the public, except during a limited number of special events. Finally, as detailed in Section 4.11, <i>Public Services and Recreation</i>, the proposed project includes mitigation that requires at least one boat slip that is provided at low or no cost.</p>
<p>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:</p> <p>(1) Topographic and geologic site characteristics.</p> <p>(2) The capacity of the site to sustain use and at what level of intensity.</p>	<p>Consistent. The proposed project site is relatively flat and topographic and geologic site characteristics would not hinder public access (see Section 4.5, <i>Geology, Soils, and Paleontological Resources</i>).</p> <p>Consistent. The proposed project would be developed at an intensity that is consistent with the land use designations of the District's PMP and that would maintain and increase public access opportunities within the site and to the waterfront.</p>
<p>(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.</p>	<p>Consistent. There are no residential uses in the immediate vicinity; however, natural resources within the project site include eelgrass habitat and open water habitat (see Section 4.3, <i>Biological Resources</i>). Public access opportunities under the proposed project, including in-Bay water transportation and recreational boating, would increase with implementation of the proposed project and have the potential to affect these habitats; however, implementation of mitigation measures would ensure these natural resources are protected (see Section 4.3, <i>Biological Resources</i>).</p>
<p>(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.</p>	<p>Consistent. The proposed project would include janitorial and landscaping services as well as the placement of trash receptacles throughout the project site to reduce the potential for litter to affect the aesthetic value of the project site and adjacent properties. The marina would be managed by secured access and other security measures by Fifth Avenue Landing, LLC in order to protect the vessels that would be docked there.</p>

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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 proposed project would include the expansion of existing water-dependent activities, including recreational boating as well as the continuation of the existing water taxi and ferry services, which are water-oriented activities that cannot be provided at inland water areas.
Section 30223. Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.	Consistent. The proposed project would include development of a water transportation center on the landside portion of the project site to support the existing water taxi and ferry services as well as the expanded marina for recreational boating.
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 proposed project would expand the existing marina by 50 slips, which would result in up to 62 slips that would accommodate a mix of boat sizes. The marina would be expanded in such a way as to not interfere with existing water transportation routes (i.e., the ferry and water taxi) or the navigational channels of other users of the Bay.
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 involve development within an area containing eelgrass and open water. However, mitigation measures would be implemented to ensure that expansion of the marina would not adversely affect the marine environment and these resources (see Section 4.3, <i>Biological Resources</i>).
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 not involve development adjacent to natural streams or riparian habitat. The proposed project would involve development adjacent to and within coastal waters and would include best management practices and low-impact design measures in order to prevent runoff from the project site from adversely affecting the water quality of the Bay (see Section 4.8, <i>Hydrology and Water Quality</i>). In addition, while the proposed project would involve development within or close to eelgrass and open water habitat, mitigation measures have been identified to ensure that expansion of the marina would not adversely affect the marine environment (see Section 4.3, <i>Biological Resources</i>).
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.	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, <i>Hazards and Hazardous</i>

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<p>Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.</p>	<p><i>Materials</i>, the Resource Conservation and Recovery Act, Hazardous and Solid Waste Act, California Code of Regulations 22 and 26, and the California Hazardous Waste Control Law would govern proper containment, spill control, and disposal of hazardous waste generated during demolition and construction. Implementing inventory accountability, spill prevention controls, and waste disposal controls associated with these regulations would limit both the frequency and severity of potential hazardous materials releases during demolition and construction.</p>
<p>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:</p> <p>(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.</p>	<p>Consistent. The proposed project would require the placement of structural pilings and a possible breakwater to support the pier as part of the marina expansion, which would increase recreational boating opportunities in the project area.</p>
<p>(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.</p>	<p>Consistent. Mitigation measures have been identified to ensure that pile driving activities associated with the proposed project would avoid significant disruption to marine and wildlife habitats (see Section 4.3, <i>Biological Resources</i>).</p>
<p>(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</p>	<p>Not applicable. The proposed project does not involve development in Bodega Bay or the south San Diego Bay and does not involve development within a wetland or estuary.</p>

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would create additional berths in Bodega Bay, shall be designed and used for commercial fishing activities.	
(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 does not involve development on a watercourse and 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 and the proposed project would not affect these operations. In addition, the proposed project would maintain existing recreational boating opportunities as well as expand those opportunities with the proposed expansion of an existing recreational boat marina.
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 site and none would be affected by the proposed project. However, the recreational boats that would dock at the proposed expanded marina may engage in recreational fishing; therefore, 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. The proposed project would include construction of a breakwater at the end of the proposed marina expansion. The breakwater would include wave attenuation panels in order to reduce wave energy entering the marina area. As such, the breakwaters would protect existing and proposed coastal-dependent uses. Neither the breakwater nor the expanded marina would cause water stagnation that would contribute to pollution or fishkills.
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 allowed within those areas. (b) Development in	Consistent. As discussed in Section 4.3, <i>Biological Resources</i> , the project would involve the expansion of a marina within areas containing or close to eelgrass and open water habitats. Mitigation measures have been identified to reduce any

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<p>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.</p>	<p>impacts the proposed project may have on those habitats, and the project would not degrade environmentally sensitive habitat areas.</p>
<p>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.</p>	<p>Consistent. As discussed in Sections 4.4, <i>Cultural Resources</i>, the project site may contain archaeological or paleontological resources. However, mitigation measures would be implemented in order to reduce impacts on these resources.</p>
<p>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.</p>	<p>Consistent. The proposed project would be adjacent and contiguous to an existing urbanized and developed area. The proposed project is also consistent with the existing developments and land uses, as discussed above. The project site and the downtown San Diego area are adequately served by existing public services (see Section 4.11, <i>Public Services and Recreation</i>). The proposed project would not involve the division of land.</p>
<p>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.</p>	<p>Consistent. As discussed in Section 4.1, <i>Aesthetics and Visual Resources</i>, the proposed project would not degrade the visual quality of the project site and would be visually compatible with the character of the surrounding areas. While the proposed project would have the potential to block some existing scenic vistas, the waterfront location of the project site has been taken into consideration during project design such that the siting and massing of the proposed tower has been designed to minimize impacts within the viewshed. In addition, the proposed project includes mitigation that requires the introduction of new public plaza and park areas with new vista areas, including publicly accessible ambulatory space around the proposed tower so that panoramic views of the San Diego Bay would remain available from the project site. As such, the proposed project would be consistent with protection of views and the visual quality of coastal areas.</p>
<p>Section 30252. The location and amount of new development should maintain and enhance public access to the coast by</p>	<p>Consistent. The project site is near existing public transportation services, including bus and trolley stops. The addition of two hotels, public plaza and park areas, retail space, and an expanded marina</p>

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(1) facilitating the provision or extension of transit service	would encourage additional use of public transit by increasing the number of users of the project site, particularly out-of-town visitors who would not necessarily rent or bring a car with them.
(2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads	Consistent. Adequate access to the project would be provided via Convention Way. The proposed project would not result in increased use of coastal access roads.
(3) providing non-automobile circulation within the development	Consistent. The proposed project would increase pedestrian access to the waterfront and the existing Embarcadero Promenade with the addition of up to 1.96 acres of public plaza and park areas and would incorporate wayfinding signage and maps throughout the project site to facilitate pedestrian circulation. The wayfinding signage is also included as mitigation in Section 4.1, <i>Aesthetics and Visual Resources</i> .
(4) providing adequate parking facilities or providing substitute means of serving the development with public transportation	Consistent. The proposed project would provide 263 parking spaces. In addition, the project site is located near several public transportation options, including the Green Line trolley stops at the Convention Center Station, which is 0.23 mile from the project site, and the Gaslamp Quarter Station, which is 0.17 mile from the project site. In addition, several bus routes provide service near the project site, including Routes 11, 901, and 929. The stop for these routes are approximately 0.4 mile from the project site. Moreover, water ferry and taxi services are provided to and from the project site via the Water Transportation Center. Finally, a collection of bicycle and pedestrian routes surround the project site. Details for each of these public transportation options are provided in Section 4.12, <i>Transportation, Circulation, and Parking</i> . As such, there is a substantial concentration of public transportation that serves the project site.
(5) assuring the potential for public transit for high intensity uses such as high-rise office buildings	Consistent. Due to its proximity to existing public transit facilities, the proposed project is expected to increase ridership of these services.
(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 would not increase the residential population in the project vicinity (see Chapter 6, <i>Additional Consequences of Project Implementation</i>). The proposed project would increase public access opportunities to the waterfront.

Goal, Policy, Objective	Proposed Project Consistency
<p>Section 30253. New development shall do all of the following:</p> <p>(a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.</p>	<p>Consistent. The proposed project would not increase risks to life and property due to geologic, flood, or fire hazards (see Section 4.5, <i>Geology and Soils</i>, Section 4.7, <i>Hazards and Hazardous Materials</i>, and Section 4.8, <i>Hydrology and Water Quality</i>).</p>
<p>(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.</p>	<p>Consistent. The project site is located along a human-made shoreline and is not located along a bluff or cliff and no natural landforms would be altered by the proposed project.</p>
<p>(c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development.</p>	<p>Consistent. As analyzed in Section 4.2, <i>Air Quality and Health Risk</i>, the project would be consistent with the regional air quality strategy and the state implementation plan once mitigation is implemented.</p>
<p>(d) Minimize energy consumption and vehicle miles traveled.</p>	<p>Consistent. The proposed project would meet the requirements of the United States Green Building Council's Leadership in Energy and Environmental Design Silver certification, or an equivalent program, and would include a number of energy-efficient features. As noted above, the proposed project would be located proximal to public transit services, which would result in reduced vehicle miles traveled. In addition to already being consistent with this policy, the proposed project would be required to implement a Parking Management Plan as mitigation, which would further reduce vehicle miles traveled by reducing single ridership trips.</p>
<p>Section 30255. Coastal-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.</p>	<p>Consistent. The proposed project would include expansion of a recreational boat marina, which is a coastal-dependent use. In addition, the proposed project would not be developed on a wetland.</p>
<p>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.</p>	<p>Consistent. The proposed project would include expansion of an existing recreational boat facility; however, there are no commercial fishing operations in the project vicinity and the proposed recreational boat marina expansion would not interfere with any commercial fishing operations.</p>

Goal, Policy, Objective	Proposed Project Consistency
<p>Section 30705. (a) Water areas may be diked, filled, or dredged when consistent with a certified port master plan only for the following:</p> <p>(2) New or expanded facilities or waterfront land for port-related facilities.</p> <p>(3) New or expanded commercial fishing facilities or recreational boating facilities.</p> <p>(d) For water areas to be diked, filled, or dredged, the commission shall balance and consider socioeconomic and environmental factors.</p>	<p>Consistent. The proposed project would involve placement of piles and a potential breakwater in the Bay as part of the expansion of an existing recreational boating dock and slips. The expansion of the recreational boating facility would not require dredging or diking. In addition, the PMPA for the proposed project is subject to review and approval by the CCC (see Chapter 3, <i>Project Description</i>).</p>
<p>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:</p> <p>(a) The water area to be filled shall be the minimum necessary to achieve the purpose of the fill.</p> <p>(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.</p> <p>(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.</p> <p>(d) The fill is consistent with navigational safety.</p>	<p>Consistent. The proposed project would involve construction of a pile-supported dock as part of the expansion of the existing recreational boat marina. The number of piles would be the minimal number required to meet structural and safety requirements. As identified in Section 4.3, <i>Biological Resources</i>, the proposed project would result in an increase of 13,623 square feet or 0.31 acre of structural fill with the construction of 188 piles and the breakwater for the marina expansion. In addition, as discussed under Threshold 1 of this section, the proposed project, including the placement of piles, would not interfere with navigation in the area. Mitigation measures will be implemented to ensure the proposed project does not adversely affect open water habitat function, water quality, wildlife resources, or water circulation (see Sections 4.3, <i>Biological Resources</i>, and 4.8, <i>Hydrology and Water Quality</i>).</p>
<p>Section 30708. All port-related developments shall be located, designed, and constructed so as to:</p> <p>(a) Minimize substantial adverse environmental impacts.</p> <p>(b) Minimize potential traffic conflicts between vessels.</p>	<p>Consistent. As documented throughout this EIR, the proposed project would minimize substantial adverse environmental impacts to the extent feasible.</p> <p>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 vessels would not add a substantial number of new users to the San Diego Bay, and, as determined in coordination with the District's Maritime Department and the San Diego Bay Pilots Association, the proposed marina would not interfere with existing vessel traffic, including operations at the Tenth Avenue Marine Terminal. In addition, boaters traveling to and from the project site would stay within the navigational channels designated by the District and would adhere to the provisions of the Harbor Safety Plan.</p>

Goal, Policy, Objective	Proposed Project Consistency
(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 does not interfere with operations, including vessel berthing, at the adjacent Tenth Avenue Marine Terminal.
(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 at the project site by increasing public plaza and park areas to the waterfront as well as expanding the existing large vessel marina, and would be consistent with the public trust commitments of the District.
California Coastal Commission Sea Level Rise Policy Guidance	
Establish the sea level rise range for the proposed project.	Consistent. A useful life of 66 years or 2082 was established. The adopted CCC low and high SLR projections for 2030 and 2050 were used for this analysis (see Section 4.6, <i>Greenhouse Gas Emissions and Climate Change</i>). Additionally, low and high SLR projections were estimated for the end of the useful life of the project (2082) by linearly extrapolating the CCC projections for 2050 and 2100.
Determine how sea level rise impacts may constrain the project site.	Consistent. Geologic stability and erosion are not relevant to the project site because it is already protected by structural elements (e.g., riprap, bulkheads). Flooding and inundation were assessed by comparing the minimum bulkhead elevation to the low and high SLR projections. Storm surge was assessed by comparing the minimum bulkhead elevations to a 100-year storm water elevation on top of the low and high SLR projections. Wave run-up was not assessed because the project site is protected by the San Diego Bay and there is insufficient fetch for the development of wind-driven waves.
Determine how the project may impact coastal resources over time, considering sea level rise.	Consistent. Not applicable, as the project will not affect coastal resources over time. Furthermore, the site would not be affected by mean SLR during the useful design life. Therefore, coastal resources will not be affected by regular inundation during the analysis period. The site may be affected by storm surge during the years of its useful life; however, inundation during storm surges would occur with or without the proposed project. Consequently, the proposed project would not exacerbate the potential for inundation during storm surges.

Goal, Policy, Objective	Proposed Project Consistency
Identify project alternatives to both avoid resource impacts and minimize risks to the project.	Consistent. Site-appropriate mitigation measures (MM-LU-1) were developed, which provide an alternative to the existing project design to minimize the risk of SLR and storm surge-driven flooding.
Finalize project design and submit permit application.	Consistent. To be completed after the CEQA process is complete, as is standard. The mitigation measures, including MM-LU-1 , will be a condition of any Coastal Development Permit, if approved.
South Embarcadero Urban Design and Signage Guidelines	
Zone 1. Park Boulevard View Corridor. Role: A visual and physical corridor that provides a safe and attractive way to link pedestrians, visitors, and residents, from the downtown Ball Park district to the waterfront attractions, public spaces, and ferry transportation facilities.	Consistent. The proposed project would provide expanded public plaza and park areas, new retail, and a safe and attractive link to the waterfront attraction, which is an improvement from the existing parking lots on the project site. The proposed project would maintain the existing Embarcadero Promenade on the project site, which provides a link from the Ball Park via the pedestrian bridge that crosses over Harbor Drive to the waterfront areas. In addition, as an optional project feature, the proposed project is planning to provide a pedestrian bridge to the SDCC, which would provide another link for pedestrians, visitors, and residents from the downtown Ball Park district to new waterfront attractions, including new retail space and public plaza and park areas. The proposed project would also provide a larger and more visually prominent water transportation facility.
Zone 2. 8th Avenue/Convention Way Streetscape. Role: Major pedestrian linkage between Embarcadero Promenade, future waterfront development, and proposed ferry terminal facilities.	Consistent. The proposed project would provide expanded public plaza and park areas that will be adjacent to and incorporated into the Embarcadero Promenade. The proposed project would maintain the existing ferry service provided on the project site.
Zone 3. Park (Option A). Role: Use as a public outdoor space for informal gatherings, viewing the bay, and special events. The park space should be designed to be flexible for a variety of programmed activities such as providing for level areas as well as raised areas for informal outdoor seating/assembly. Serve as a buffer to Convention Way activities.	Consistent. The proposed project would convert the eastern portion of the project site from green open space to a lower-cost, visitor-serving hotel; however, the existing park to the east of the project site would remain and could be used for programmed activities. In addition, the proposed project would incorporate new public plaza and park areas, that would also be available for informal gatherings and viewing the Bay as well as special events.

Goal, Policy, Objective	Proposed Project Consistency
<p>Zone 4. Public Promenade.</p> <p>Role: Use as a public outdoor space for information gatherings, viewing the bay, strolling, and jogging. The promenade should be designed in this location as a “terminus” to the public portion of the walkway. Maintain width of the promenade as required for emergency access and ADA requirements.</p>	<p>Consistent. The proposed project would maintain the existing Embarcadero Promenade, as well as connect it with additional public plaza and park areas that would be developed as part of the proposed project.</p>
South Embarcadero Public Access Program	
<p>Segments 10, 11, and 12</p>	<p>Consistent. Segments 10, 11, and 12 of the South Embarcadero Public Access Program identify three areas along the waterfront where pedestrian walkways, bike paths, rollerblading, environmental education, public art, and handicapped accessibility would be appropriate use types. Facility improvements recommended along these segments include a viewpoint, pathway, toilet facility, water availability, lighting, telephones, tables/benches, and signage. The proposed project would maintain the existing Embarcadero Promenade along the waterfront and enhance the public access opportunities within the project site, including incorporated wayfinding signage and other information. The wayfinding signage is also included as mitigation in Section 4.1, <i>Aesthetics and Visual Resources</i>.</p>
<p>8th Avenue Plaza/Walk</p>	<p>Consistent. The 8th Avenue Plaza/Walk at the corner of Harbor Drive and Park Boulevard would be preserved in its existing state and would not be removed by the proposed project.</p>
San Diego Integrated Natural Resources Management Plan	
<p>Objective 4.3.1 Retain sufficient deep subtidal habitat to support safe navigation, good water quality, and physical and biological functioning in balance with the need for other habitat types in the bay.</p>	<p>Consistent. The proposed project would not interfere with deep tidal habitat and the District would require the tenants of the proposed project to comply with the District’s Harbor Safety Plan, which provides mariners with the District’s policies regarding pollution prevention and protection of the region’s resources. Finally, the District would also prepare a marina Best Management Practice Plan as mitigation for the proposed project that would ensure marina operations would not degrade water quality (see Section 4.8, <i>Hydrology and Water Quality</i>).</p>
<p>Objective 4.4.1 Minimize the harmful ecological, economic, and human health impact of aquatic invasive species in San Diego Bay.</p>	<p>Consistent. Tenants of the proposed project must comply with the District’s Harbor Safety Plan, which outlines ballast discharge regulations for vessels arriving from outside the Pacific Coast Region in order to minimize the introduction of harmful invasive species into the region’s waters.</p>

Goal, Policy, Objective	Proposed Project Consistency
<p>Objective 4.4.4 Maintain, enhance, and restore habitats on San Diego Bay aimed at providing for the health of resident and migratory populations of birds that rely on the bay to complete their life cycle. Foster broader public knowledge and appreciation of the functional, aesthetic, recreational, and economic value of the bird resources of the bay.</p>	<p>Consistent. Consistent with the Migratory Bird Treaty Act, the proposed project includes mitigation that requires avoiding construction activities during the nesting season for birds or conducting preconstruction nesting surveys. In addition, the proposed project includes mitigation requiring the implementation of design features outlined in the American Bird Conservancy Bird Friendly Building Guide to ensure that reflective building materials would not increase bird strikes (see Section 4.3, <i>Biological Resources</i>).</p>
<p>Objective 4.4.5 Maintain a healthy balance of marine mammal species inhabiting or visiting San Diego Bay.</p>	<p>Consistent. The proposed project would not result in any significant impacts on marine mammals. Mitigation measures would be included to ensure protection of marine mammals during pile driving activities (see Section 4.3, <i>Biological Resources</i>).</p>
<p>Objective 5.2.2 Manage the maintenance of boats and ships in San Diego Bay in a manner that achieves significantly improved water and sediment quality, healthier marine organisms, and economic good sense.</p>	<p>Consistent. The proposed project includes expansion of an existing marina, the operation of which has the potential to affect water quality. However, as mitigation, a Marina Best Management Practice Plan would be implemented to minimize water quality impacts from the maintenance of boats using the marina (see Section 4.8, <i>Hydrology and Water Quality</i>).</p>

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 acoustical engineers and were considered significant if the proposed project would (1) expose persons to, or generate, noise levels in excess of established standards; (2) expose persons to, or generate, excessive groundborne vibration or groundborne noise levels; (3) result in a substantial permanent increase in ambient noise levels; or (4) result in a substantial temporary or periodic increase in ambient noise levels; (5) exacerbate the existing exposure of people residing or working in the project to excessive public airport noise levels; or (6) exacerbate the existing exposure of people residing or working in the project area within the vicinity of a private airstrip to excessive noise levels. This section focuses on potential impacts on surrounding people and properties; potential effects on wildlife are addressed in Section 4.3, *Biological Resources*, of this EIR.

Pursuant to the recent 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 will affect a project's residents or users unless the project would exacerbate those conditions. Therefore, when discussing impacts from the environment on the project, such as how the proximity of an airport may affect a project, the analysis will first determine if there is a potential for the project to exacerbate the issue. If evidence indicates it would not, then the analysis will conclude by stating such. If it would potentially exacerbate the issue, then analysis is provided to determine if the exacerbation would or would not be significant.

Table 4.10-1 summarizes the significant impacts and mitigation measures discussed in Section 4.10.6, *Project Impact Analysis*.

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 an Adopted Noise Standard During Project Construction	MM-NOI-1: Avoid or Reduce Construction Noise from Impact-Type Pile Driving MM-NOI-2: Notify Users of Nearby Recreational Areas MM-NOI-3: Reduce Construction Noise from	Significant and Unavoidable	Noise impacts would be reduced by mitigation measures MM-NOI-1 , MM-NOI-2 , and MM-NOI-3 . If impact pile driving can be avoided and/or shrouded as described in MM-NOI-1 , most of the noise impacts would be reduced to less-than-significant levels. However, due to the close proximity of the project site to noise-sensitive receivers, significant impacts

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
	Other (Non-Pile Driving) Construction Activities		would likely still occur. In addition, impacts would remain significant for any pile driving activities where it is not feasible to implement MM-NOI-1 . Consequently, these measures would not necessarily ensure noise standards would not be exceeded during construction and impacts would remain significant.
Impact-NOI-2: Potential Exceedance of an Adopted Noise Standard Due to Onsite Operational Noise from Mechanical Equipment	MM-NOI-4: Design and Construct Project Facilities to Control Noise from All Mechanical Equipment	Less than Significant	Mitigation measure MM-NOI-4 would ensure building systems and mechanical equipment would comply with applicable noise ordinance limits during project operation.
Impact-NOI-3: Potential Exceedance of an Adopted Noise Standard Due to Outdoor Special Events	MM-NOI-5: Incorporate Operational/Contract Specifications to Minimize Exterior Special Event Noise	Less than Significant	Mitigation measure MM-NOI-5 would ensure compliance with applicable noise ordinance requirements or appropriate permit/variance/exemption during outdoor special events.
Impact-NOI-4: Potentially Substantial Increase in Ambient Noise Levels Due to Onsite Operational Noise from Mechanical Equipment	Implement MM-NOI-4	Less than Significant	Mitigation measure MM-NOI-4 would prevent excessive noise levels from project operation.
Impact-NOI-5: Potentially Substantial Increase in Ambient Noise Levels Due to Outdoor Special Events	Implement MM-NOI-5	Significant and Unavoidable	Mitigation measure MM-NOI-5 would ensure compliance with applicable noise ordinance requirements or appropriate permit/variance/exemption during outdoor special events. Although events that operate with a permit/variance/exemption would be in compliance with local regulations they could still increase ambient noise levels at nearby sensitive receptors by 5 dB or more.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-NOI-6: Significant Temporary Increase in Ambient Noise Levels During Project Construction	Implement MM-NOI-1 , MM-NOI-2 , and MM-NOI-3	Significant and Unavoidable	The extent to which noise increases can be reduced will depend on how fully MM-NOI-1 , MM-NOI-2 , and MM-NOI-3 can be implemented. However, even with full implementation, it is not feasible to entirely eliminate noise increases of 5 dBA or more. Consequently, after mitigation, the temporary increase in ambient noise levels during project construction would remain significant and unavoidable.

4.10.2 Noise Fundamentals

Noise is commonly defined as unwanted sound. 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 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 *frequency* (pitch) and *amplitude* (loudness). A low-frequency sound is perceived as low in pitch. 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, 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 determines the loudness of that source. The amplitude of a sound is typically described in terms of *sound pressure level*, which refers to the root-mean-square pressure of a sound wave and can be measured in units called microPascals (μPa). One μPa is approximately one hundred-billionth (0.0000000001) of normal atmospheric pressure. Sound pressure levels for different kinds of noise environments can range from less than 100 to over 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 (also referred to simply as the sound level) in terms of decibels, abbreviated dB. 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 $20 \mu Pa$ 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 $20 \mu Pa$.

Decibel Addition

Because decibels are logarithmic units, sound pressure levels cannot be added or subtracted 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 excavator produces a sound pressure level of 80 dB, two excavators would not produce 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.

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 in higher or lower frequencies. To approximate the response of the human ear, sound levels in various frequency bands are adjusted (or “weighted”), depending on human sensitivity to those frequencies. The resulting sound pressure level is expressed in A-weighted decibels, abbreviated dBA. 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 Noise 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.

Human Response to Noise

Noise-sensitive receptors (also called “receivers”) are locations where people reside or where the presence of unwanted sound may adversely affect the use of the land (see Section 4.10.2.5, *Noise-sensitive Land Uses*, below). The effects of noise on people can be listed in three general categories.

- Subjective effects of annoyance, nuisance, or dissatisfaction
- Interference with activities such as speech, sleep, learning, or working
- Physiological effects such as startling and hearing loss

In most cases, effects from sounds typically found in the natural environment (compared to an industrial or an occupational setting) would be limited to the first two categories: creating an annoyance or interfering with activities. (Further discussion of health-related effects is provided below.) No completely satisfactory method exists to measure the subjective effects of sound or the corresponding reactions of annoyance and dissatisfaction. This lack of a common standard arises primarily from the wide variation in individual thresholds of annoyance and habituation to sound. Therefore, an important way of determining a person’s subjective reaction 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, as judged by the exposed individual.

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.

Equipment and vehicle operation during nighttime hours can potentially result in noise events that disturb the sleep of people living in nearby residential areas. Interior noise levels between 50 and 55 dBA maximum sound level (L_{\max}) during nighttime hours (10 p.m. to 7 a.m.) were found to result in sleep disturbance and annoyance (Nelson 1987).

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. The most common of these metrics are described below.

Equivalent Sound Level (L_{eq})

The 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. Thus, 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})

L_{\max} and 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.

Community Noise Equivalent Level (CNEL)

It is recognized that a given level of noise may be more or less tolerable depending on the duration of the exposure experienced by an individual, as well as the time of day during which the noise occurs. The community noise equivalent level (CNEL) is a measure of the cumulative 24-hour noise exposure that considers not only the variation of the A-weighted noise level but also the duration

and the time of day of the disturbance. The CNEL is derived from the 24 A-weighted 1-hour L_{eq} that occur in a day, with “penalties” applied to the L_{eq} occurring during the evening hours (7 p.m. to 10 p.m.) and nighttime hours (10 p.m. to 7 a.m.) to account for increased noise sensitivity during these hours. Specifically, the CNEL is calculated by adding 5 dBA to the evening L_{eq} , adding 10 dBA to the nighttime L_{eq} , and then taking the average value for all 24 hours.

Day-Night Sound Level (L_{dn})

Much like CNEL above, day-night sound level (L_{dn}) is also a measure of the cumulative 24-hour noise exposure that considers not only the variation of the A-weighted noise level but also the duration and the time of day of the disturbance. The L_{dn} is derived in exactly the same way as CNEL, except that no “penalty” is applied to the evening hours of 7 p.m. to 10 p.m. Specifically, the L_{dn} is calculated from the 24 A-weighted 1-hour L_{eq} that occur in a day by adding 10 dBA to the nighttime (10 p.m. to 7 a.m.) L_{eq} and then taking the average value for all 24 hours.

It is noted that various federal, state, and local agencies have adopted CNEL or L_{dn} as the measure of community noise. While 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 following important factors.

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 resulting 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. The excess noise attenuation from ground absorption occurs due to acoustic energy losses on sound wave reflection. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is done for simplification only; for distances of less than 200 feet, prediction results based on this scheme are sufficiently accurate. For acoustically “hard” sites (i.e., sites with a reflective surface, such as a parking lot or a smooth body of water, between the source and the receptor), no excess ground attenuation is assumed because the sound wave is reflected without energy losses. 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, the 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 2013) and others has shown that atmospheric conditions can have a major effect on noise levels. Wind

has been shown to be the single most important meteorological factor within approximately 500 feet, whereas vertical air temperature gradients are more important over longer distances. Other factors, such as air temperature, humidity, and turbulence, also have major effects. Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lower noise levels. Increased sound levels can also occur because of temperature inversion conditions (i.e., increasing temperature with elevation, with cooler air near the surface, where the sound source tends to be, and the warmer air above that acts as a cap, causing a reflection of ground level-generated sound).

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. 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 higher barrier may provide as much as 20 dB of noise reduction.

4.10.2.5 Noise-sensitive Land Uses

Noise-sensitive land uses typically include, but are not necessarily limited to, residential uses, hospitals, nursing facilities, intermediate care facilities, child educational facilities, libraries, museums, and child care facilities (City of San Diego 2015). The District also considers parks and hotels to be noise sensitive during certain hours of operation. Parks, which are closed during nighttime hours, are considered to be noise sensitive only during the daytime and evening hours of 7 a.m. to 10 p.m. Hotels are considered to be noise sensitive only during the evening and nighttime hours of 7 p.m. to 7 a.m.

Another type of noise-sensitive receptor that can be affected by in-water construction (such as the proposed marina expansion) is aquatic wildlife. Underwater noise levels from pile driving activities were analyzed to assess potential impacts on fish and marine mammals. Additional discussion and the results of these analyses are provided in Section 4.3, *Biological Resources*, of this EIR.

4.10.3 Environmental Vibration Fundamentals

Groundborne vibration is an oscillatory motion of the soil with respect to the equilibrium position and can be quantified in terms of *velocity* or *acceleration*. The 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*.

In contrast to airborne sound, groundborne vibration is not a phenomenon that most people experience every day. The background vibration velocity 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 equipment (such as blasting and pile driving), railroad operations, and heavy trucks on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. Groundborne

vibration can be a serious concern for neighbors of nearby sources, causing buildings to shake and rumbling sounds to be heard. Vibration can result in effects that range from annoyance to structural damage. Variations in geology and distance result in different vibration levels with different frequencies and amplitudes.

Groundborne vibration can be described in terms of peak particle velocity (PPV). PPV is defined as the maximum instantaneous positive or negative peak amplitude of the vibration velocity. The unit of measurement for PPV is inches per second (in/s). For transient vibration sources (single isolated vibration events such as blasting), the human response to vibration varies from barely perceptible at a PPV of 0.04 in/s, to distinctly perceptible at a PPV of 0.25 in/s, to severe at a PPV of 2.0 in/s. For continuous or frequent intermittent vibration sources (such as impact pile driving or vibratory compaction equipment), the human response to vibration varies from barely perceptible at a PPV of 0.01 in/s, to distinctly perceptible at a PPV of 0.04 in/s, to severe at a PPV of 0.4 in/s (California Department of Transportation 2013). If a person is engaged in any type of physical activity, vibration tolerance increases considerably (California Department of Transportation 2013).

4.10.3.1 Vibration-sensitive Land Uses

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. 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 would typically include residential uses, hospitals, nursing facilities, intermediate care facilities, child educational facilities, libraries, museums, and child care facilities. It is noted, however, that vibration effects are typically only considered inside occupied buildings and not at outside areas such as residential yards, or open space. As such, the District does not consider parks to be vibration sensitive unless they contain occupied buildings. The District considers hotels to be vibration sensitive only during the evening and nighttime hours of 7 p.m. to 7 a.m.

4.10.4 Existing Conditions

The existing noise environment in the study area is affected by contributions from a wide range of sources including the following:

- Transportation sources such as traffic, aircraft (civilian and military), watercraft (recreational, commercial, and military), and rail (passenger, freight, and trolley).
- Industrial activities, such as ships and cargo-handling activities at the nearby Tenth Avenue Marine Terminal (TAMT).
- Operations at the San Diego Convention Center (SDCC) and nearby hotels (e.g., loading docks, music).
- Operations at the existing 12-slip Fifth Avenue Landing superyacht dockage and 450-slip Marriott Marquis San Diego Marina.
- Local pedestrian traffic and park users.

4.10.4.1 Noise Monitoring

In order to quantify the existing ambient noise conditions, noise monitoring was conducted at six locations in the project vicinity between October 20 and October 24, 2016. Long-term noise monitoring was conducted at three locations, designated LT1, LT2, and LT3, and short-term noise monitoring was conducted at three locations, designated ST1, ST2, and ST3. All measurement locations are indicated on Figure 4.10-1. These locations were selected to document the existing noise environment at nearby noise-sensitive receptors in the immediate vicinity of the project site and adjacent to roadways that would be affected by project traffic. The sound level meters used for both the long- and short-term noise monitoring were field-calibrated prior to each measurement to ensure accuracy, using a Larson Davis CAL200 acoustical calibrator; the calibration was also re-checked at the conclusion of each measurement. Field noise survey sheets are provided in Appendix J.

Long-term Noise Measurements

Long-term ambient noise measurements were conducted between October 20 and October 24, 2016, at three locations near the project site using Piccolo SLM-P3 Type 2 sound level meters. Long-term measurement sites were selected to capture daily noise level patterns and statistics continuously over 1-hour intervals. Approximately 4 days of continuous data were recorded at each location, including both weekdays and a weekend. Daily noise levels in terms of CNEL were calculated from hourly sound level data. Table 4.10-3 summarizes the results of the long-term noise measurements in terms of the range of daytime (7 a.m. to 7 p.m.), evening (7 p.m. to 10 p.m.), and nighttime (10 p.m. to 7 a.m.) average (L_{eq}) noise levels measured during both weekdays and the weekend. Each long-term monitoring location is described in further detail below.



Figure 4.10-1
Ambient Noise Monitoring Locations
Fifth Avenue Landing Project

Table 4.10-3. Long-term Noise Measurements

Site#	Location	Date	Range of CNEL	Time of Day	Range of Hourly Leq Values (Average), dBA
LT1	Marriott Marquis San Diego Hotel and Marina	Weekdays:	61.6–62.3	Daytime (7 a.m. to 7 p.m.)	54.7–64.4 (59.6)
		10/20/16,		Evening (7 p.m. to 10 p.m.)	56.2–58.9 (57.3)
		10/21/16, &		Nighttime (10 p.m. to 7 a.m.)	49.7–57.6 (54.0)
		10/24/16	59.8–61.4	Daytime (7 a.m. to 7 p.m.)	52.5–62.0 (56.3)
		Weekend:		Evening (7 p.m. to 10 p.m.)	53.8–57.2 (56.0)
		10/22/16 & 10/23/16		Nighttime (10 p.m. to 7 a.m.)	50.2–56.2 (53.3)
LT2	Harbor Club San Diego	Weekdays:	68.4–68.9	Daytime (7 a.m. to 7 p.m.)	59.1–68.4 (63.0)
		10/20/16,		Evening (7 p.m. to 10 p.m.)	58.1–63.1 (61.1)
		10/21/16, &		Nighttime (10 p.m. to 7 a.m.)	51.7–66.2 (60.4)
		10/24/16	63.5–66.4	Daytime (7 a.m. to 7 p.m.)	57.2–64.1 (60.0)
		Weekend:		Evening (7 p.m. to 10 p.m.)	57.2–62.7 (61.0)
		10/22/16 & 10/23/16		Nighttime (10 p.m. to 7 a.m.)	52.1–63.3 (57.7)
LT3	Embarcadero Marina Park South	Weekdays:	63.2–63.5	Daytime (7 a.m. to 7 p.m.)	53.2–61.1 (58.0)
		10/20/16,		Evening (7 p.m. to 10 p.m.)	55.6–57.9 (57.1)
		10/21/16, &		Nighttime (10 p.m. to 7 a.m.)	49.0–59.5 (55.0)
		10/24/16	60.0–65.9	Daytime (7 a.m. to 7 p.m.)	53.6–72.0 (62.5)
		Weekend:		Evening (7 p.m. to 10 p.m.)	52.9–55.4 (53.6)
		10/22/16 & 10/23/16		Nighttime (10 p.m. to 7 a.m.)	50.6–62.9 (56.0)

Source: ICF field noise measurements (see Appendix J)

LT1: Marriott Marquis San Diego Hotel and Marina

Equipment for monitoring location LT1 was mounted with a lock-box and windscreen on a light pole, approximately 9 feet above the ground, adjacent to the Embarcadero Promenade south of the Marriott Marquis San Diego Hotel along the marina, approximately 750 feet northeast of the proposed project site. This location had direct line of sight to the proposed project site and Embarcadero Marina Park to the southeast. LT1 was conducted primarily to document ambient noise levels at the Marriott San Diego Marquis Hotel.

LT2: Harbor Club San Diego

Equipment for monitoring location LT2 was mounted with a lock-box and windscreen on a light pole, approximately 9 feet above the ground on the west side of 3rd Avenue, just north of K Street, approximately 1,000 feet north of the proposed project site. This location was adjacent to the Harbor Club condominium towers at 100 Harbor Drive and had direct line of sight to the SDCC to the southwest with Harbor Drive, the trolley line, railroad tracks, and the Martin Luther King Promenade in between. LT2 is representative of land uses on the north side of Harbor Drive along the Martin Luther King Promenade northeast of the SDCC.

LT3: Embarcadero Marina Park South

Equipment for monitoring location LT3 was mounted on a tree with a lock-box and windscreen, approximately 7 feet above the ground at the easternmost corner of Embarcadero Marina Park South. LT3 is approximately 400 feet south of the proposed hotel and 300 feet east of the closest proposed slips at the proposed marina expansion. This location had unobstructed views of the 5th Avenue Pier, the SDCC, and the TAMT. LT3 is representative of Embarcadero Marina Park.

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 Thursday, October 20, 2016.

Measurement ST1 was an extended short-term measurement, with data collected over a continuous 12-hour period using a Piccolo SLM-P3 Type 2 sound level meter.

Measurements ST2 and ST3 were obtained using a Larson Davis Model 831 Type 1 sound level meter. Each measurement lasted between 15 and 30 minutes and was conducted with the meter mounted on a tripod at a height of 5 feet above the ground, with a wind screen to reduce the effects of wind-related interference. Noise metrics—including L_{eq} , L_{min} , L_{max} , L_2 , L_8 , L_{10} , L_{25} , L_{50} , and L_{90} noise descriptors—were recorded subsequent to the conclusion of each measurement.

Data from the measurement are shown in Table 4.10-4. Short-term monitoring locations and noise conditions at the time of the measurements are described below.

ST1: Centennial Park, Coronado

Equipment for monitoring location ST1 was mounted with a lock-box and windscreen on a sign post, approximately 7 feet above the ground at Centennial Park in Coronado. ST1 was approximately 90 feet from the water and 2,700 feet southwest of the proposed project site. The meter was installed facing northeast toward the SDCC across the Bay. The noise environment within the park was defined primarily by foot traffic and watercraft (both civilian and military). Other sources present included people talking at picnic areas within the park and activity at nearby hotel pools. ST1 is representative of land uses along the north side of Coronado adjacent to San Diego Bay.

ST2: Fifth Avenue Landing Park

Equipment for monitoring location ST2 was situated toward the center of Fifth Avenue Landing Park, approximately 320 feet east of the proposed project site. The noise environment was defined primarily by overflying aircraft. Other sources present included watercraft (both civilian and military), distant intermittent traffic passing by on Park Boulevard and Harbor Drive, and foot traffic along the Bay and in front of the Hilton San Diego Bayfront Hotel. ST2 was conducted primarily to document ambient noise levels at the park.

Table 4.10-4. Short-term Noise Measurements

Site	Location	Date	Time	Measured Noise Levels (dBA)								
				L _{eq}	L _{max}	L _{min}	L ₂	L ₈	L ₁₀	L ₂₅	L ₅₀	L ₉₀
ST1	Centennial Park, Coronado	10/20/2016	10:00 a.m. – 11:00 p.m.	58.2	77.3	50.6	66	58	58	56	54	52
			11:00 p.m. – 12:00 p.m.	59.5	80.9	48.8	66	58	57	56	54	51
			12:00 p.m. – 1:00 p.m.	56.2	72.1	46.3	64	58	58	55	53	49
			1:00 p.m. – 2:00 p.m.	61.5	84.9	48.8	67	61	61	58	55	51
			2:00 p.m. – 3:00 p.m.	60.4	80.2	48.9	67	63	62	59	56	51
			3:00 p.m. – 4:00 p.m.	60.3	76.5	49.8	68	63	63	59	57	52
			4:00 p.m. – 5:00 p.m.	62.1	83.1	49.9	69	63	62	60	57	52
			5:00 p.m. – 6:00 p.m.	64.6	83.8	50.0	71	68	67	64	61	55
			6:00 p.m. – 7:00 p.m.	59.5	80.7	48.6	66	62	61	58	55	51
			7:00 p.m. – 8:00 p.m.	61.8	83.8	48.8	69	61	60	57	54	50
			8:00 p.m. – 9:00 p.m.	57.4	73.7	48.5	64	61	60	57	54	51
			Daytime Average (10 a.m. – 7p.m.)	60.7	-	-	-	-	-	-	-	-
ST2	Fifth Avenue Landing Park	10/20/2016	11:35 a.m. – 12:01 p.m.	54.4	72.1	49.4	58.3	55.9	55.6	53.8	52.5	51.0
ST3	Hilton San Diego Bayfront Hotel	10/20/2016	12:10 p.m. – 12:25 p.m.	59.9	71.2	56.6	67.3	61.8	61.0	59.1	58.5	57.6

ST3: Hilton San Diego Bayfront Hotel

Equipment for monitoring location ST3 was situated on the Embarcadero Promenade immediately southwest of the Hilton San Diego Bayfront Hotel, adjacent to the hotel's pool area, approximately 800 feet east of the proposed project site. The noise environment was defined almost entirely by activities at the neighboring TAMT to the southeast. Other sources present included watercraft (both civilian and military) and activities at the Hilton San Diego Bayfront Hotel pool directly northeast of the sound level meter location. ST3 was conducted primarily to document ambient noise levels at the hotel.

4.10.5 Applicable Laws and Regulations

The District does not have its own noise or vibration standards and does not currently maintain formal impact thresholds for assessing potential impacts under CEQA. The following sections discuss various laws, regulations, and guidelines that may apply to the proposed project or that are otherwise useful in developing thresholds of impact for the proposed project.

4.3.1.1 Federal

Noise Control Act of 1972

The Federal Noise Control Act of 1972 (Public Law 92 574) established a requirement that all federal agencies administer their programs to promote an environment free of noise that would jeopardize public health or welfare. The U.S. Environmental Protection Agency (EPA) was given responsibility for the following.

- Providing information to the public regarding identifiable effects of noise on public health and welfare
- Publishing information on the levels of environmental noise that will protect the public health and welfare with an adequate margin of safety
- Coordinating federal research and activities related to noise control
- Establishing federal noise emission standards for selected products distributed in interstate commerce

As part of its responsibility, EPA published *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* in 1974 (EPA 1974). This report identifies sound levels less than or equal to 55 L_{dn} as being appropriate outdoors for residential areas and other places in which quiet is a basis for uses to avoid annoyance and interference with outdoor activity (EPA 1974).

4.10.5.1 State Regulations

California requires each local government entity to perform noise studies and implement a noise element as part of its general plan. The purpose of the noise element is to limit the exposure of the community to excessive noise levels; the noise element must be used to guide decisions concerning

land use. The State provides guidelines for evaluating the compatibility of various land uses as a function of community noise exposure.

Title 24, California Code of Regulations

Part 2, Title 24 of the California Code of Regulations, “California Noise Insulation Standards,” establishes minimum noise insulation standards to protect people in new hotels, motels, dormitories, long-term care facilities, apartment houses, and dwellings other than single-family residences. Under this regulation, interior noise levels attributable to exterior noise sources cannot exceed 45 CNEL in any habitable room (the noise metric shall be either L_{dn} or CNEL, consistent with the noise element of the local general plan, so CNEL is appropriate for San Diego).

California Department of Transportation

None of the local laws and regulations discussed below provide any quantitative criteria regarding groundborne noise and vibration. Therefore, while the proposed project would not be subject to Caltrans oversight, guidance published by the agency nonetheless provides groundborne vibration criteria that are useful in establishing thresholds of impact. Caltrans’ widely referenced *Transportation and Construction Vibration Guidance Manual* (Caltrans 2013) provides guidance for two types of potential impact: (1) damage to structures, and (2) annoyance to people. Guideline criteria for each are provided in Tables 4.10-5 and 4.10-6.

Table 4.10-5. Caltrans Guideline Vibration Damage Criteria

Structure and Condition	Maximum PPV (in/s)	
	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 2013.

Note: 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.

Table 4.10-6. Caltrans Guideline Vibration Annoyance Criteria

Human Response	Maximum PPV (in/s)	
	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 2013.

Note: 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.

4.10.5.2 Local

Port of San Diego Port Master Plan

The proposed project is within the jurisdiction of the District. Key noise-related policies in the Port Master Plan are described below.

Planning Goals

Section II of the Port Master Plan sets forth goals and related policies for development and operation of land within the District's jurisdiction.

Goal VIII. The Port District will enhance and maintain the bay and tidelands as an attractive physical and biological entity.

- 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.

City of San Diego General Plan

The City of San Diego General Plan, Noise Element, provides information, goals, and policies related to the noise environment within the City. The Noise Element presents Land Use – Noise Compatibility Guidelines for the compatibility of various land uses with different noise exposures, defined using the CNEL. There are three different tiers of compatibility: (1) Compatible, (2) Conditionally Compatibility, and (3) Incompatible. The compatibility is described in Table NE-3, which is reproduced, below, as Table 4.10-7. Referring to the table, hotels ("Visitor Accommodations") are compatible with an exterior noise exposure of up to 60 dB CNEL, and conditionally compatible with an exterior noise exposure of up to 75 dB CNEL. The building structure must reduce interior noise levels to 45 dB CNEL or less.

Table 4.10-7. City of San Diego General Plan Land Use - Noise Compatibility Guidelines

Land Use Category		Exterior Noise Exposure (dBA CNEL)			
		60	65	70	75
<i>Parks and Recreational</i>					
Parks, Active and Passive Recreation					
Outdoor Spectator Sports, Golf Courses; Water Recreational Facilities; Indoor Recreation Facilities					
<i>Agricultural</i>					
Crop Raising & Farming; Community Gardens, Aquaculture, Dairies; Horticulture Nurseries & Greenhouses; Animal Raising, Maintain & Keeping; Commercial Stables					
<i>Residential</i>					
Single Dwelling Units; Mobile Homes		45			
Multiple Dwelling Units <i>*For uses affected by aircraft noise, refer to Policies NE-D.2. & NE-D.3.</i>		45	45*		
<i>Institutional</i>					
Hospitals; Nursing Facilities; Intermediate Care Facilities; Kindergarten through Grade 12 Educational Facilities; Libraries; Museums; Child Care Facilities		45			
Other Educational Facilities including Vocational/Trade Schools and Colleges and Universities		45	45		
Cemeteries					
<i>Retail Sales</i>					
Building Supplies/Equipment; Food, Beverages & Groceries; Pets & Pet Supplies; Sundries, Pharmaceutical, & Convenience Sales; Wearing Apparel & Accessories			50	50	
<i>Commercial Services</i>					
Building Services; Business Support; Eating & Drinking; Financial Institutions; Maintenance & Repair; Personal Services; Assembly & Entertainment (includes public and religious assembly); Radio & Television Studios; Golf Course Support			50	50	
Visitor Accommodations		45	45	45	
<i>Offices</i>					
Business & Professional; Government; Medical, Dental & Health Practitioner; Regional & Corporate Headquarters			50	50	
<i>Vehicle and Vehicular Equipment Sales and Services Use</i>					
Commercial or Personal Vehicle Repair & Maintenance; Commercial or Personal Vehicle Sales & Rentals; Vehicle Equipment & Supplies Sales & Rentals; Vehicle Parking					
<i>Wholesale, Distribution, Storage Use Category</i>					
Equipment & Materials Storage Yards; Moving & Storage Facilities; Warehouse; Wholesale Distribution					
<i>Industrial</i>					
Heavy Manufacturing; Light Manufacturing; Marine Industry; Trucking & Transportation Terminals; Mining & Extractive Industries					
Research & Development				50	
	Compatible	Indoor Uses	Standard construction methods should attenuate exterior noise to an acceptable indoor noise level. Refer to Section I.		
		Outdoor Uses	Activities associated with the land use may be carried out.		
45, 50	Conditionally Compatible	Indoor Uses	Building structure must attenuate exterior noise to the indoor noise level indicated by the number (45 or 50) for occupied areas. Refer to Section I.		
		Outdoor Uses	Feasible noise mitigation techniques should be analyzed and incorporated make the outdoor activities acceptable. Refer to Section I.		
	Incompatible	Indoor Uses	New construction should not be undertaken.		
		Outdoor Uses	Severe noise interference makes outdoor activities unacceptable.		

Source: Table NE-3, City of San Diego General Plan, Noise Element

City of San Diego Municipal Code 59.5.0401 (Noise Ordinance)

The Noise Ordinance makes it unlawful for any person to cause noise by any means to the extent that the 1-hour L_{eq} exceeds the applicable limit given in Table 4.10-8 at any location in the City of San Diego on or beyond the boundaries of the property on which the noise is produced.

Table 4.10-8. City of San Diego Noise Limits

Land Use	Time of Day	1-Hour L_{eq} (dBA)
Single Family Residential	7 a.m. to 7 p.m.	50
	7 p.m. to 10 p.m.	45
	10 p.m. to 7 a.m.	40
Multi-Family Residential (up to a maximum density of 1/2,000)	7 a.m. to 7 p.m.	55
	7 p.m. to 10 p.m.	50
	10 p.m. to 7 a.m.	45
All other Residential	7 a.m. to 7 p.m.	60
	7 p.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
Commercial	7 a.m. to 7 p.m.	65
	7 p.m. to 7 a.m.	60
Industrial or Agricultural	Any time	75

Source: City of San Diego Municipal Code.

Note: The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts.

City of San Diego Municipal Code 59.5.0404 (Construction Noise)

The City's Noise Ordinance also regulates construction noise levels. Specifically, construction that creates disturbing, excessive, or offensive noise is prohibited between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, and on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, and on Sundays unless a permit is granted by the Noise Abatement and Control Administrator.

In granting a permit, the Administrator must consider whether the construction noise in the vicinity of the proposed work site would be less objectionable at night than during the daytime because of different population densities or different neighboring activities; whether obstruction and interference with traffic particularly on streets of major importance, would be less objectionable at night than during the daytime; whether the type of work to be performed emits noises at such a low level as to not cause significant disturbances in the vicinity of the work site; the character and nature of the neighborhood of the proposed work site; whether great economic hardship would occur if the work were spread over a longer time; whether proposed night work is in the general public interest; and he shall prescribe such conditions, working times, types of construction equipment to be used, and permissible noise levels as he deems to be required in the public interest.

Except under special circumstances related to emergency work as detailed in the Noise Ordinance, construction activity that creates an average sound level greater than 75 dB during the 12-hour period from 7:00 a.m. to 7:00 p.m. at or beyond the property lines of any property zoned residential is prohibited by ordinance.

City of San Diego Significance Determination Thresholds

The City of San Diego's CEQA Significance Determination Thresholds outline the criteria and thresholds used by the City to determine whether project impacts are significant (City of San Diego 2016). Noise thresholds that could be applied to the proposed project include traffic-generated noise, noise from adjacent stationary uses (noise generators), temporary construction noise, noise/land use compatibility, and airport noise. The City's criteria for the relevant threshold is described below.

Interior and Exterior Noise Impacts from Traffic-generated Noise

The City's traffic noise significance thresholds are reproduced below as Table 4.10-9.

Table 4.10-9. San Diego CEQA Significance Determination Thresholds Traffic Noise Significance Thresholds

Structure or Proposed Use that Would Be Impacted by Traffic Noise	Interior Space (CNEL)	Exterior Usable Space ¹ (CNEL)	General Indication of Potential Significance
Single-Family Detached	45 dB	65 dB	Structure or outdoor usable area ² is <50 feet from the center of the closest (outside) lane on a street with existing or future ADT >7,500
Multi-Family, Schools, Libraries, Hospitals, Day Care, Hotels, Motels, Parks, Convalescent Homes	Development Services Department ensures 45 dB pursuant to Title 24	65 dB	
Offices, Churches, Business, Professional Uses	N/A	70 dB	Structure or outdoor usable area is <50 feet from the center of the closest lane on a street with existing or future ADT of >20,000
Commercial, Retail, Industrial, Outdoor Spectator Sports Uses	N/A	75 dB	Structure or outdoor usable area is <50 feet from the center of the closest lane on a street with existing or future ADT of >40,000

Source: City of San Diego 2016, Table K-2.

ADT = average daily traffic.

¹ If a project is currently at or exceeds the significance thresholds for traffic noise described above, and noise levels would result in less than a 3 dB increase, then the impact is not considered significant.

² Exterior usable areas do not include residential front yards or balconies, unless the areas such as balconies are part of the required usable open space calculation for multi-family units.

Airport Noise Impacts

In considering airport noise impacts, the City's CEQA Significance Determination Thresholds focus primarily on requirements for new residential development. For other noise-sensitive receptors, the CEQA Significance Determination Thresholds state that a noise study and noise mitigation are required for new construction of hospitals, schools, day care centers, or other sensitive uses where airport noise is greater than 65 dB CNEL.

Noise from Adjacent Stationary Uses (Noise Generators)

Regarding adjacent stationary uses, the City's CEQA Significance Determination Thresholds defer primarily to the standards contained in the City's municipal code (Section 59.5.0401, discussed above) to provide quantitative noise limits. In addition, the Significance Determination Thresholds state that a noise level above 65 dB CNEL at a residential property line could be considered a significant environmental impact.

Temporary Construction Noise

Regarding temporary construction noise, the City's CEQA Significance Determination Thresholds defer to the standards contained in the City's municipal code (Section 59.5.0404, discussed above) to provide quantitative noise limits.

Noise/Land Use Compatibility

The City's CEQA Significance Determination Thresholds state that noise is one factor to be considered in determining whether a land use is compatible. Noise/land use compatibility is presented in the CEQA Significance Determination Thresholds as a chart, which is reproduced below as Table 4.10-10. Compatible land uses are shaded and incompatible land uses are unshaded. The CEQA Significance Determination Thresholds indicate that "the transition zone between compatible and incompatible should be evaluated by the environmental planner to determine whether the use would be acceptable based on all available information and the extent to which the noise from the proposed project would affect the surrounding uses."

Table 4.10-10. San Diego CEQA Significance Determination Thresholds Noise Land Use Compatibility Chart

Land Use		Annual CNEL, dB					
		50	55	60	65	70	75
1	Outdoor amphitheaters						
2	Schools, libraries						
3	Nature preserves, wildlife preserves						
4	Residential single-family, multi-family, mobile homes, transient housing						
5	Retirement homes, intermediate care facilities, convalescent homes						
6	Hospitals						
7	Parks, playgrounds						
8	Office buildings, business and professional						
9	Auditoriums, concert halls, indoor arenas, churches						
10	Riding stables, water recreation facilities						
11	outdoor spectator sports, golf courses						
12	livestock farming, animal breeding						
13	Commercial-retail, shopping centers, restaurants, movie theaters						
14	Commercial-wholesale, industrial manufacturing, utilities						
15	Agriculture (except livestock), extractive industry, farming						
16	Cemeteries						

San Diego International Airport Land Use Compatibility Plan

Noise compatibility standards for aircraft operations are provided in Table 2-1 of the Airport Land Use Compatibility Plan (ALUCP) for San Diego International Airport (SDIA) (Airport Land Use Commission, San Diego County Regional Airport Authority 2014). The noise compatibility standards address a broad range of land uses including residential, commercial, educational, institutional, public services, industrial, transportation, communication, utilities, recreation, parks, open space,

and agriculture. Hotel uses are compatible and permitted in areas with a noise exposure of up to 75 dB CNEL or higher under the condition that sleeping rooms must be attenuated to 45 dB CNEL and any other indoor areas must be attenuated to 50 dB CNEL.

4.10.6 Project Impact Analysis

4.10.6.1 Methodology

Construction Noise and Vibration

Potential noise and vibration impacts associated with project construction activities were evaluated based on the proposed project's construction equipment schedule and phasing information. Because the land uses surrounding the project site have varying noise and vibration sensitivity, not all neighboring land uses need to be analyzed for all possible impacts. The receivers used in the various analyses are all shown on Figure 4.10-2. Table 4.10-11 describes the receivers and summarizes which potential noise and/or vibration impacts are analyzed at each receiver.



Figure 4.10-2
Analysis Locations for Construction Noise and/or Vibration
Fifth Avenue Landing Project

Table 4.10-11. Noise- and Vibration-sensitive Receivers Used in Analysis of Construction Impacts

Receiver #	Land Use/Description	Sensitive to Daytime Construction Noise?	Sensitive to Daytime Construction Vibration?	
			Potential Building Damage	Human Annoyance
R1	Hotel – Marriott Marquis San Diego Hotel and Marina	No (levels reported for reference only)	Yes, Analyzed	No
R2	Residential – Condominiums north of E Harbor Drive	Yes, Analyzed	Yes, Analyzed	Yes, Analyzed
R3	Commercial – Convention Center	No	Yes, Analyzed	No
R4	Park – Embarcadero Marina Park North	Yes, Analyzed	No (no buildings)	No (levels reported for reference only)
R5	Commercial – Joe’s Crab Shack	No	Yes, Analyzed	No
R6	Park – Embarcadero Marina Park South	Yes, Analyzed	No (no buildings)	No (levels reported for reference only)
R7	Park – Fifth Avenue Landing Park	Yes, Analyzed	No (no buildings)	No (levels reported for reference only)
R8	Hotel – Hilton San Diego Bayfront Hotel	No (levels reported for reference only)	Yes, Analyzed	No
R9	Residential – Apartments in Coronado	Yes, Analyzed	Yes, Analyzed	Yes, Analyzed

Noise

Construction-related traffic noise was analyzed using a proprietary traffic noise model, with calculations based on data from the Federal Highway Administration (FHWA) Traffic Noise Model, Version 2.5, Look-Up Tables (FHWA 2004). The inputs used in the traffic noise modeling were the maximum daily truck trips and corresponding construction worker vehicle trips estimated from the project construction schedule (refer to Section 4.2, *Air Quality and Health Risk*, Section 4.6, *Greenhouse Gas Emissions and Climate Change*, and Appendix D of this EIR); assumed daily distribution (it was assumed that all traffic would occur between 7 a.m. and 7 p.m.); and traffic speeds, based on the posted speed limits.

Construction-related noise was analyzed using data and modeling methodologies from FHWA’s Roadway Construction Noise Model (RCNM) (FHWA 2006, 2008), which predicts average noise levels at nearby receptors by analyzing the type of equipment, the distance from source to receptor, usage factor, and the presence or absence of intervening shielding between source and receptor. This methodology calculates the composite average noise levels for multiple equipment items scheduled during each construction phase. The analysis assumed 12-hour workdays for all phases of construction. The source-to-receptor distances used in the analyses were the acoustical average distances between the relevant construction area and each receptor. The acoustical average distance is used to represent noise sources that are mobile or distributed over an area (such as the project site); it is calculated by multiplying the shortest distance between the receiver and the noise source area by the farthest distance and then taking the square root of the product. Noise levels for each phase of construction were analyzed at seven receptors in the vicinity of the project site. These

receptors are illustrated in Figure 4.10-2 and represent the closest noise-sensitive receptors to the project site. The receptors include two hotels, which are included for reference and to illustrate nearby noise levels, even though they are not considered noise sensitive during the daytime hours when construction is anticipated to occur. Table 4.10-12 provides the noise levels of construction equipment expected to be used by the proposed project; the noise levels are provided for a reference distance of 50 feet. Consistent with the RCNM methodology, it was assumed that construction noise levels would be reduced at a rate of 6 dB per doubling of distance from the source.

In order to estimate increases over ambient noise levels due to construction activities, the construction noise levels were compared to measured noise levels at noise-sensitive receptors. For locations where short-term ambient noise levels were measured, the corresponding ambient L_{eq} was used as the basis for comparison. For locations where long-term noise measurements were obtained, the average L_{eq} measured across all weekday daytime hours was used as the basis for comparison. For locations where ambient noise levels were not measured directly, the closest noise measurement for a similar land use was used.

Table 4.10-12. Construction Equipment Noise Levels

Equipment Item	Maximum Noise Level (L_{max}) at 50 feet, dBA¹	Usage Factor^{1,2}	Average Noise Level (L_{eq}) at 50 feet, dBA
All terrain forklifts	77.6	0.4	73.6
AC cold planer	81.7	0.4	77.7
Asphalt paver	77.2	0.5	74.2
Backhoe	77.6	0.4	73.6
Bobcat	77.6	0.4	73.6
Boom lift	74.7	0.2	67.7
Bottom dump	76.5	0.4	71.7
Crane	80.6	0.16	72.6
Concrete pump	81.4	0.2	74.4
Drill/auger rig	84.4	0.2	77.4
End dumps	76.5	0.4	72.5
Excavator	80.7	0.4	76.7
Grader	85.0	0.4	81.0
Loader	79.1	0.4	75.1
Man/material hoist	74.7	0.2	67.7
Mobile concrete pump	81.4	0.2	74.4
Pile driving rig	101.3	0.2	94.3
Scissor lift	74.7	0.2	67.7
Skid steer	77.6	0.4	73.6
Tower crane	80.6	0.16	72.6
Vibratory roller	80.0	0.2	73.0
Water truck	76.5	0.4	72.5

¹ Obtained or estimated from FHWA 2006, 2008 (RCNM).

² Usage Factor is the fraction of time the equipment is operating in its noisiest mode while in use. L_{eq} is estimated from L_{max} using the following equation: $L_{eq} = L_{max} + 10 \times \log_{10} (\text{Usage Factor})$.

Vibration

Construction-related vibration was analyzed using data and modeling methodologies provided by Caltrans' *Transportation and Construction Vibration Guidance Manual* (California Department of Transportation 2013). 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 potential vibration impacts are assessed 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. Vibration levels for each major vibration source were analyzed at nine receptors in the vicinity of the project site. These receptors are illustrated on Figure 4.10-2 and represent the closest sensitive receptors to the project site. They include the same seven receptors used in the construction noise analysis, as well as two additional structures (Joe's Crab Shack and the SDCC) that are assessed for potential building damage. The receptors include two hotels and three parks, which are included for reference and to illustrate nearby vibration levels, even though they are not considered vibration sensitive during the

daytime hours when construction is anticipated to occur. Table 4.10-13 provides the PPV levels of worst-case construction equipment expected to be used by the proposed project; the levels are provided for a reference distance of 25 feet.

Table 4.10-13. Construction Equipment Vibration Levels

Equipment Item	Reference PPV at 25 feet, in/s ¹
Pile driver	0.65
Vibratory roller	0.210
Large bulldozer ²	0.089

¹ Obtained from Caltrans 2013.
² Considered representative of other heavy earthmoving equipment such as excavators, graders, backhoes, etc.

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 receiver; PPV_{ref} is the reference PPV at 25 feet from the pile driver (0.65 in/s); D is the distance from the pile driver to the receiver, 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 there would, therefore, 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 (0.089 in/s); D is the distance from the equipment to the receiver, 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 noise in the study area was analyzed based on data from the *Transportation Impact Analysis* (TIA) for the proposed project (Appendix K-1). The analysis was conducted 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 average daily traffic (ADT) data provided by the TIA; assumed traffic mix and daily distribution (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. To quantify the effects of the proposed project, traffic noise was analyzed using six different scenarios: (1) existing, (2) existing with Project, (3) near-term (2021) without Project, (4) near-term (2021) with Project, (5) future (2035) without Project, and (6) future (2035) with Project. The first two scenarios were used to analyze the direct traffic noise

impacts of the proposed project; scenarios 3 through 6 were used to analyze the cumulative impacts (refer to Chapter 5, *Cumulative Impacts*, of this EIR). The noise modeling is provided in Appendix J.

4.10.6.2 Thresholds of Significance

As noted in Section 4.5.1, *Overview*, since the decision handed down by the California Supreme Court in *California Building Industry Assoc. v. Bay Area Air Quality Management District* (CBIA vs. BAAQMD case), there is no longer ambiguity as to whether CEQA documents must 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. Potential impacts of the existing environment on the project itself do not need to be analyzed. The exception occurs if the proposed project, by developing in an area with a known environmental condition, may exacerbate the condition. Therefore, the analysis below applies this same logic, consistent with the California Supreme Court's direction.

In light of the CBIA vs. BAAQMD case, 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, and modified to reflect the Supreme Court's recent guidance and provide the basis for determining significance of impacts from noise and vibration associated with the implementation of the proposed project. The determination of whether a noise 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. The District has not adopted its own specific thresholds of impact for potential noise and vibration impacts and therefore uses, where appropriate, the applicable standards and guidelines of other agencies such as the City of San Diego or Caltrans.

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

1. Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. A significant impact would occur if, at any noise-sensitive receptors: (a) construction activity fails to comply with the construction noise standards provided of the City of San Diego's municipal code (Municipal Code section 59.5.0404); (b) project traffic generates noise levels/noise increases in excess of *Impacts from Traffic Generated Noise* criteria of the City of San Diego's CEQA Significance Determination Thresholds;¹ or (c) noise from onsite operational activity exceeds the exterior noise standards of the City of San Diego's CEQA noise ordinance (Municipal Code section 59.5.0401).
2. Expose persons to or generate excessive groundborne vibration or groundborne noise levels. A significant impact would occur if construction or operation of the project exceeds Caltrans' guideline vibration criteria for damage to structures at any nearby buildings or annoyance to people (distinctly perceptible vibration) at any vibration-sensitive location.
3. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. A significant impact would occur if, at any noise-sensitive receptor: (a) project traffic generates noise increases of 5 dB or more, or in excess of the *Impacts from Traffic Generated Noise* criteria of the City of San Diego's CEQA Significance Determination

¹ The City's CEQA Significance Determination Thresholds for assessing traffic noise impacts considers both absolute noise levels and a project's contribution to noise level increases when determining whether an impact is significant.

Thresholds;² or (b) noise from onsite operational activity increases ambient noise levels by 5 dBA or more (a readily perceptible change).

4. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. A significant impact would occur if noise from project construction activity increases ambient noise levels by 5 dBA or more (a readily perceptible change) at any noise-sensitive receptor.
5. Exacerbate the existing exposure of people residing or working in the project area within 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. A significant impact would occur if the project exacerbates existing noise conditions at noise-sensitive receptors such that exposure to aircraft noise levels in excess of the applicable standards of the SDIA ALUCP would result.
6. Exacerbate the existing exposure of people residing or working in the project area within the vicinity of a private airstrip to excessive noise levels. A significant impact would occur if the project exacerbates existing noise conditions at noise-sensitive receptors such that exposure to aircraft noise levels in excess of the applicable standards of the SDIA ALUCP would result.

4.10.6.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would expose persons to or generate noise levels in excess of standards established in City of San Diego's CEQA Significance Determination Thresholds, 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 worker vehicles and haul trucks that would transport equipment and materials would incrementally increase noise levels on access roads. This would include construction worker vehicles and haul trucks traveling to and from the staging area, as well as worker shuttles and haul trucks traveling between the staging area and the project site. Although there would be a relatively high single-event noise level, which could cause an intermittent noise nuisance (e.g., passing trucks at 50 feet would generate up to 77 dBA), the effect on longer-term ambient noise levels (e.g., the daily average noise levels considered in the City's General Plan guidelines) would be small. A review of construction traffic volumes analyzed in the project TIA (Appendix K-1) indicates that construction traffic would increase the overall ADT on affected roadways by approximately 2% to 10% relative to existing conditions, which would correspond to an imperceptible noise increase of less than 0.5 dB CNEL. An analysis of construction traffic accessing the project (worker shuttles and haul trucks) indicates a noise level of up to 57 dB CNEL adjacent to affected roadways due to construction traffic. This is well below all of the City's thresholds for traffic noise (65 to 75 dB CNEL, depending on the land use) and all of the measured ambient noise levels in the project vicinity (60 to 69 dB CNEL; refer to Table

² The City's CEQA Significance Determination Thresholds for assessing traffic noise impacts considers both absolute noise levels and a project's contribution to noise level increases when determining whether an impact is significant.

4.10-3). Therefore, short-term, construction-related impacts associated with commuting workers and transporting equipment to the project site would be less than significant.

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 a.m. and 7 p.m. and would be restricted primarily to Monday through Friday; however, Saturday construction is permitted by San Diego's municipal code and occasional Saturday construction may occur. Landside construction is anticipated to start in December 2018 and be completed by August 2021. Landside construction would primarily consist of work at the project site but would also include offsite improvements to upgrade the utilities required to support the project. Utility improvements would include removal, upgrade, and relocation of various sewer and storm drain facilities within Marina Park Way, Convention Way, and Park Boulevard. In addition, because the existing electrical circuit on Convention Way does not have sufficient capacity, the proposed project would be required to tie into the Sampson Street Substation for electrical power. This would require trenching from the project site, out along Convention Way to Harbor Drive, and along Harbor Drive to the Sampson Street Substation, for a total trenching distance of approximately 1.4 miles. It may also be necessary to add a new switch and/or transformer at the Sampson Street Substation to accommodate the proposed project's energy demand. The offsite utilities work adjacent to the project site and extending along Convention Way and Park Boulevard is included in the analysis described below (under Phase 4.1); this is the portion of the work that would occur closest to sensitive receptors. Trenching along Harbor Drive would not generate any significant noise or vibration impacts because it would occur adjacent to industrial properties and other non-sensitive land uses (parking lots, a parking structure, railroad, rail yards, etc.) and would be hundreds of feet from the nearest sensitive receptors. Waterside construction of the expanded marina would occur in two phases. Phase I would start when the hotel is approximately 70% complete and would last approximately 6 to 9 months. Phase II would also last approximately 6 to 9 months, but is expected to be built at a later date based on market conditions, which is anticipated to be approximately 5 years after the hotel is operational. Once all of the landside buildings are under construction, staging would have to occur off site. Offsite staging would occur at the R.E. Staite property at 2145 Belt Street, San Diego. This location is an existing construction yard used for equipment storage and staging. The staging area would be more than a mile from the project site and therefore would not contribute to construction noise levels in the project vicinity. Project-related staging would not cause any noise impacts in the local vicinity because the construction yard is located in a busy industrial area with no nearby noise-sensitive land uses.

Project construction would be broken down into various phases and activities. These phases and anticipated construction equipment are summarized in Table 4.10-14.

Table 4.10-14. Construction Phasing, Tasks, and Equipment

Construction Phase/Activity		Equipment (Number of Pieces)
Phase 1 – Mobilization and Site Preparation		
1.1	Mobilization/Demolition	AC cold planer (1), loader (1), end dump (2), backhoe loader (1), water truck (1)
1.2	Dewatering/Shoring	Drill/auger rig (1), end dumps (2), loader (1), water truck (1)

Construction Phase/Activity		Equipment (Number of Pieces)
Phase 2 – Market-Rate Hotel Tower & Meeting Areas		
2.1	Excavation and Foundation	Pile driving rig (2), grader (1), excavator (2), loader (2), end dump (5), backhoe loader (2), water truck (1)
2.2	Structural Frame	Tower crane (1), concrete pump (1), mobile concrete pump (1), all terrain forklifts (2), 15 ton wheeled hydro crane, backhoe loader (1), water truck (1)
2.3	Exterior Closure and Roofing	Boom lifts (5), all terrain forklift (2), man/ material hoist (1)
2.6	Interior Construction/Finishes	All terrain forklifts (1), scissor lift (6)
2.7	MEP Systems	All terrain forklifts (1), scissor lift (6)
Phase 3 – Lower-Cost, Visitor-Serving Hotel		
3.1	Foundations	Pile driving rig (1), mobile concrete pump (1)
3.2	Structural Frame	Tower crane (1), mobile concrete pump (1)
3.3	Exterior Closure	Boom lift (3), all terrain forklifts (1), man/material hoist (1)
3.4	Interior Construction/Finishes	Scissor lift (6)
3.5	Phase Completion Work	Scissor lift (6)
Phase 4 – Site Work		
4.1	Offsite Demolition/Grading/Utilities	Loader (1), end dumps (2), backhoe loader (2), water truck (1), skid steer (2), bobcat (2)
4.4	Site Improvements	Asphalt paver (1), vibratory roller (2), bottom dumps (2), water truck (2), backhoe/loader (3), excavator (1), bobcat (2), all terrain forklift (1), mobile concrete pumps (1)
Marina Phase I		
I.1	Construction Without Pile Driving	Forklift (1), portable crane (1), derrick barge (1), push boat (1), skiffs (2)
I.2	Construction With Pile Driving	Forklift (1), portable crane (1), derrick barge (1), push boat (1), skiffs (2), pile driver (1), jet pump (1)
Marina Phase II		
II.1	Construction Without Pile Driving	Forklift (1), portable crane (1), derrick barge (1), push boat (1), skiffs (2)
II.2	Construction With Pile Driving	Forklift (1), portable crane (1), derrick barge (1), push boat (1), skiffs (2), pile driver (1), jet pump (1)

Source: Turner Construction Company 2016

Note: Only major construction activities are included. Minor activities without substantial use of heavy equipment or that occur inside the building are not analyzed in detail. Offsite construction staging activity is not included in the analysis because it would not affect any noise-sensitive land uses.

The details of the construction noise analyses are included in Appendix J. A summary of the results is provided in Table 4.10-15; noise levels that exceed the threshold of 75 dBA (12-hour L_{eq}) at noise-sensitive receptors are indicated with bold text in the table. These significant impacts would occur at Embarcadero Marina Park South and Fifth Avenue Landing Park (**Impact-NOI-1**). Impacts would be caused primarily by activities that include pile driving (identified in Table 4.10-14 as activities 2.1, 3.1, I.2, and II.2), either when these activities occur alone or when overlapping with other activities.

When pile driving occurs, it would be the dominant source of noise due to the brief but very high short-term noise levels generated by each strike of the pile-driving hammer (maximum noise levels of approximately 101 dBA at a distance of 50 feet). Landside pile driving and its associated noise impacts would occur for up to 75 weeks. Waterside pile driving would last approximately 4 weeks during each phase of marina construction, such that significant impacts from marina pile driving would occur for a total of 8 weeks. Marina construction would not start until the hotel is approximately 70% complete; therefore, landside and waterside pile driving would not overlap. Some impacts at Fifth Avenue Landing Park are also related to overlapping activities that would lead to an increased level of construction equipment usage at the site even without pile driving activity.

Table 4.10-15. Estimated Construction Noise Levels

Construction Phase/Activity	12-Hour Leq, 7 a.m. to 7 p.m., dBA ¹						
	R1: Marriott Marquis San Diego Hotel and Marina ²	R2: Condos on E Harbor Drive	R4: Embarcadero Marina Park North	R6: Embarcadero Marina Park South	R7: Fifth Avenue Landing Park	R8: Hilton San Diego Bayfront Hotel ²	R9: Homes in Coronado
Landside Construction							
Phase 1 – Mobilization and Site Preparation							
1.1 Mobilization/Demolition	56.1	50.1	52.4	63.5	72.3	57.2	46.5
1.2 Dewatering/Shoring	55.3	49.3	51.7	62.7	71.5	56.4	45.8
Phase 2 – Market Rate Hotel Tower & Meeting Areas							
2.1 Excavation and Foundation	72.1	65.5	69.0	80.2	78.2	71.1	61.9
2.2 Structural Frame	57.0	50.4	53.9	65.0	63.1	55.9	46.8
2.3 Exterior Closure and Roofing	53.6	46.9	50.4	61.6	59.7	52.5	43.4
2.6 Interior Construction/Finishes	52.1	45.5	49.0	60.2	58.2	51.1	41.9
2.7 MEP Systems	53.6	46.9	50.4	61.6	59.7	52.5	43.4
Phase 3 – Lower-Cost, Visitor-Serving Hotel							
3.1 Foundations	64.9	62.4	62.1	72.9	90.9	72.4	58.7
3.2 Structural Frame	47.2	44.7	44.3	55.2	73.2	54.7	41.0
3.3 Exterior Closure	47.2	44.8	44.4	55.3	73.3	54.8	41.0
3.4 Interior Construction/Finishes	46.0	43.6	43.2	54.1	72.1	53.6	39.8
3.5 Phase Completion Work	46.0	43.6	43.2	54.1	72.1	53.6	39.8
Phase 4 - Site Work							
4.1 Offsite Demolition/Grading/Utilities	56.0	52.8	52.3	57.2	69.7	61.7	46.7
4.4 Site Improvements	59.3	53.3	55.6	66.6	75.4	60.4	49.7
Overlapping Activities							
1.2 & 2.1	72.2	65.6	69.1	80.3	79.2	71.2	62.1
2.1 & 3.1	72.9	67.2	69.8	80.9	91.2	74.8	63.6
2.2 & 3.1	65.5	62.7	62.7	73.6	90.9	72.5	59.0
2.2, 2.7, & 3.1	65.8	62.8	62.9	73.9	90.9	72.6	59.1

Construction Phase/Activity	12-Hour L_{eq} , 7 a.m. to 7 p.m., dBA ¹						
	R1: Marriott Marquis San Diego Hotel and Marina ²	R2: Condos on E Harbor Drive	R4: Embarcadero Marina Park North	R6: Embarcadero Marina Park South	R7: Fifth Avenue Landing Park	R8: Hilton San Diego Bayfront Hotel ²	R9: Homes in Coronado
2.2, 2.5, 2.7, & 3.1	65.8	62.8	62.9	73.9	90.9	72.6	59.1
2.2, 2.5, 2.7, 3.1, & 3.2	65.9	62.9	63.0	73.9	91.0	72.6	59.2
2.2, 2.3, 2.5, 2.7, 3.1, & 3.2	66.1	63.0	63.2	74.2	91.0	72.7	59.3
2.2, 2.3, 2.5, 2.7, 3.1, 3.2, & 4.1	66.5	63.4	63.6	74.3	91.0	73.0	59.5
2.2, 2.3, 2.5, 2.7, 3.1, 3.2, 3.3, & 4.1	66.6	63.4	63.6	74.3	91.1	73.1	59.6
2.2, 2.3, 2.5, 2.6, 2.7, 3.1, 3.2, 3.3, & 4.1	66.7	63.5	63.8	74.5	91.1	73.1	59.6
2.2, 2.3, 2.5, 2.6, 2.7, 3.1, 3.2, 3.3, 3.4, & 4.1	66.8	63.6	63.8	74.5	91.2	73.2	59.7
2.3, 2.5, 2.6, 2.7, 3.3, 3.4, & 4.1	60.5	55.8	57.2	67.1	76.9	64.0	51.1
2.3, 2.6, 2.7, 3.3, 3.4, & 4.1	60.5	55.8	57.2	67.1	76.9	64.0	51.1
2.3, 2.6, 3.3, 3.4, & 4.1	59.5	55.2	56.1	65.6	76.8	63.7	50.3
2.3, 2.6, 3.3, 3.4, & 4.4	61.2	55.4	57.8	68.9	78.7	62.8	51.9
Waterside Construction							
Marina Phase I							
Phase I.1 Construction Without Pile Driving	53.3	49.4	53.0	68.2	73.0	60.0	49.5
Phase I.2 Construction With Pile Driving	64.1	60.2	63.8	79.0	83.9	70.8	60.4
Marina Phase II							
Phase II.1 Construction Without Pile Driving	52.5	47.1	52.9	67.5	59.9	57.7	51.4
Phase II.2 Construction With Pile Driving	63.3	57.9	63.7	78.3	70.7	68.6	62.2

Source: Appendix J

¹ Noise levels that exceed the threshold of 75 dBA 12-hour L_{eq} at noise-sensitive receivers are indicated with **bold** text.² Hotels are not considered noise-sensitive during the daytime hours when project construction is scheduled to occur. Noise levels are reported at these locations for reference and to demonstrate the reduced noise levels that are anticipated to occur at larger distances from the project site.

Operation

Traffic

Traffic noise levels were estimated along each of the roadway segments analyzed in the TIA for the proposed project. The traffic noise analysis is provided in Appendix J and the results are summarized in Table 4.10-16.

Noise-sensitive land uses adjacent to the analyzed roadways consist of multi-family homes, hotels, and parks. Referring to the summarized results, traffic noise levels currently exceed the applicable exterior threshold of 65 dB CNEL along the majority of the studied segments, and project-generated traffic would not increase noise levels by 3 dB or more at any of these locations. At locations where existing conditions are below 65 dB CNEL, the project-generated traffic would not increase noise levels above the threshold. Therefore, the impacts would be less than significant.

Table 4.10-16. Estimated Traffic Noise Levels

Construction Phase/Activity	Estimated Unmitigated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)			Significant?
	Existing	Existing + Project	Increase over Existing	
Harbor Drive				
Laurel St to Hawthorn St	73.3	73.4	0.1	No
Pacific Highway to Kettner Blvd	63.4	64.0	0.6	No
Kettner Blvd to Market St	68.7	69.3	0.6	No
Market St to Front St	68.5	69.1	0.6	No
Front St to First Ave	68.8	69.6	0.8	No
First Ave to Convention Center Court	68.7	69.9	1.2	No
Convention Center Court to Fifth Ave	68.7	69.9	1.2	No
Fifth Ave to Park Blvd	69.0	70.5	1.5	No
South of Park Blvd	69.6	69.7	0.1	No
Pacific Highway				
Juniper St to Hawthorn St	63.8	64.2	0.4	No
Broadway to Harbor Drive	64.2	64.6	0.4	No
Park Boulevard				
Harbor Dr to Gull St	59.5	63.0	3.5	No
Source: Appendix J				

Onsite Operations

Onsite noise sources associated with the proposed project would include mechanical equipment such as heating, ventilation, and air conditioning (HVAC) systems, other air-handling systems (e.g., restaurant kitchen fans) and pump and heating equipment for the swimming pools; loading dock operations; general patron activities at exterior areas of the proposed project (public plaza and parks areas, outdoor dining areas, swimming pools); and activities at the expanded marina. Each of these is discussed in further detail below.

Mechanical Equipment

Conceptual mechanical plans for the proposed project indicate that various pieces of mechanical equipment would be installed at exterior locations within the project site. These include a cooling tower, two rooftop air-handling units, two smoke exhaust fans, a boiler and related pumps, and two stair pressurization fans located at the main hotel rooftop; and two rooftop air-handling units, a domestic hot water plant, and exhaust fans at the low-cost visitor-serving hotel rooftop.

Manufacturers' data for possible equipment selections indicate sound power levels³ of approximately 66 to 106 dBA, which equates to noise levels of up to 71 dBA at a distance of 50 feet and 65 dBA at a distance of 100 feet; these noise levels would increase when multiple pieces of equipment operate simultaneously. Based on the proximity of much of the exterior mechanical equipment to the project property lines (within 100 feet), project mechanical equipment is anticipated to exceed the City's noise ordinance limits for commercial properties (65 dBA from 7 a.m. to 7 p.m., and 60 dBA from 7 p.m. to 7 a.m.), which would be a significant impact (**Impact-NOI-2**). Therefore, a mitigation measure (in the form of a performance specification) is required.

Loading Docks

Three loading docks would be located at the project's shipping and receiving area adjacent to Convention Way toward the north end of the project site. Based on measurements of operational trucking facilities (Wieland Acoustics 2014), sporadic noise levels at 50 feet from the noise source would include airbrakes (80 to 83 dBA at 50 feet), medium and heavy trucks (65 to 83 dBA), refrigeration trucks (66 to 73 dBA), and backup alarms (78 to 85 dBA). While short-term noise levels would be high, long-term average noise levels would be substantially lower. In addition, the loading docks would be enclosed on three sides and above, which would help contain noise inside the building. The only exterior opening to the shipping and receiving area would be the doors facing northeast toward Convention Way and the SDCC's loading dock areas, which are not noise sensitive. Therefore, the noise impact from the proposed loading docks would be less than significant.

Exterior Activities

Day-to-day activities at the exterior areas of the proposed project (public plaza and park areas, outdoor dining areas, swimming pools) would generate modest noise levels from people talking and laughing as they utilize the restaurants, retail, and open space. Depending on the level of vocal effort, the associated noise levels would range from about 50 dBA (female voice during casual conversation) to 75 dBA (loud male voice) with occasional shouting reaching levels as high as 82 to 88 dBA at a distance of 1 meter (Harris 1998). This equates to noise levels of 26 to 64 dBA at a distance of 50 feet and 20 to 58 dBA at a distance of 100 feet. These same noise levels already occur from people using the existing parks and Embarcadero Promenade in the area, and the impact would be less than significant.

Larger outdoor special events could include weddings, exhibits, social gatherings, fundraisers, concerts, music festivals, and art exhibits, which would be attended by large numbers of people and would include live or recorded music. Although noise from these special events would be regulated by the City's Noise Ordinance, noise from outdoor events and activities could exceed relevant noise

³ Sound power level is a measure of the acoustical energy emitted by a source and is a specific characteristic of the source itself. While the sound pressure level (i.e., noise level) experienced by a listener will change based on distance from the source, the sound power of the source remains constant.

standards (**Impact-NOI-3**). Therefore, a mitigation measure (in the form of a performance specification) is included.

Marina Operation

Operations at the marina would typically be very quiet because the slips would be used for vessel storage, and the vessels would leave the area when in use. Vessels would be required to maintain low speeds while in the marina, for safety purposes. Data for vessel passbys at low speeds (25 miles per hour or less) indicate maximum noise levels of approximately 64 to 72 dBA at a distance of 82 feet (National Park Service 2003). The closest new slips are approximately 150 feet from the nearby Embarcadero Marina Park South; this distance would reduce noise levels to 59 to 67 dBA. It would take a vessel only a few moments to pass by the park. Even if the worst-case noise levels persisted for 10 minutes, the hourly average noise level would be 59 dBA, which is below the City's commercial daytime and nighttime noise standards of 65 dBA and 60 dBA, respectively. Therefore, the noise impact would be less than significant.

Offsite Operations

Aside from traffic, operation of the proposed project would not generate any meaningful noise or vibration from offsite sources. The new offsite utilities would not generate audible noise because they would be buried within streets. Any new hardware required at the Sampson Street Substation (i.e., a new switch and/or transformer) would represent only an incremental increase in similar equipment that is already operating at the substation, and the overall noise increase would be negligible. Furthermore, the Sampson Street Substation is located more than a mile from the project site, in a busy industrial area with no nearby noise-sensitive land uses. Therefore, the noise impact would be less than significant.

Level of Significance Prior to Mitigation

Construction

Construction of the proposed project would expose persons to or generate noise levels in excess of standards established in City of San Diego's CEQA Significance Determination Thresholds, the City's Noise Ordinance, or the Noise Element of the City's General Plan. Potentially significant impact(s) include:

Impact-NOI-1: Exceedance of an Adopted Noise Standard During Project Construction.

Noise impacts due to project construction would exceed 75 dBA 12-hour L_{eq} between 7 a.m. and 7 p.m. at noise-sensitive receptors. These impacts would occur at Embarcadero Marina Park South and Fifth Avenue Landing Park. Impacts would primarily be caused by activities that include pile driving; however, some impacts at Fifth Avenue Landing Park are also related to overlapping activities that would lead to an increased level of construction equipment usage at the site.

Operation

Operation of the proposed project would potentially expose persons to or generate noise levels in excess of standards established in City of San Diego's CEQA Significance Determination Thresholds, the City's Noise Ordinance, or the Noise Element of the City's General Plan. Potentially significant impact(s) include:

Impact-NOI-2: Potential Exceedance of an Adopted Noise Standard Due to Onsite Operational Noise from Mechanical Equipment. Potentially significant noise impacts could occur due to onsite operation of mechanical equipment for the proposed project, which could exceed the standards of the City of San Diego's noise ordinance.

Impact-NOI-3: Potential Exceedance of an Adopted Noise Standard Due to Outdoor Special Events. Outdoor event noise has the potential to exceed the standards of the City of San Diego's noise ordinance dependent upon the exact nature and timing of events and the sound system used.

Mitigation Measures

Construction

For **Impact-NOI-1:**

MM-NOI-1: Avoid or Reduce Construction Noise from Impact-Type Pile Driving During Both Landside and Marina Construction. The project proponent and its construction contractor shall prohibit all pile driving activities outside the hours of 7:00 a.m. to 7:00 p.m. on Monday through Saturday. No associated activity shall occur at any time on Sundays or legal holidays. Construction personnel shall not be permitted on the project site (including laydown and storage areas), and material or equipment deliveries and collections shall not be permitted during the prohibited hours. In addition, impact pile driving shall be avoided by using alternative, quieter installation methods such as press-in piles or drilled pile techniques (e.g., cast-in-drilled-hole, poured-in-place). If the project proponent and its construction contractor determine that alternative pile installation methods are infeasible at some or all areas of the project site and that such areas require impact pile driving, then an acoustical shroud shall be utilized, as described below. Alternative pile installation methods shall only be considered infeasible if the project proponent and its construction contractor provide sufficient evidence, to the satisfaction of District Development Services Department, that such methods are infeasible based on technical, structural, geological, safety, and/or cost considerations.

Wherever impact pile driving is required for landside or waterside construction, it shall be conducted only with the use of an acoustical shroud to reduce noise levels. The shroud shall enclose the pile and hammer on all sides and shall extend from the water or ground surface to a point at least 5 feet above the top of the pile to be driven. The acoustical shroud, held in place by a crane, shall surround the pile driving assembly during pile driving activities, and shall be constructed as follows.

- a. A metal framework (cylindrical or square/rectangular) shall be constructed for the shroud to support the weight of the attached acoustical blankets. The framework shall be centered on the pile to be driven.
- b. Acoustical blankets shall be firmly secured to the outside of the framework with the sound-absorptive side of the blankets oriented toward the interior of the shroud (i.e., toward the pile). The blankets shall be overlapped by at least 6 inches at seams and taped to eliminate gaps. The largest blankets available shall be used to form the shroud in order to minimize the number of seams. The blankets shall be draped to the water or ground surface to eliminate any gaps at the base of the shroud.

- c. The number and size of gaps needed for the safe operation of the pile driver shall be kept to a minimum.
- d. The acoustical blankets shall provide a minimum sound transmission class of 28 and a minimum noise reduction coefficient of 1.00.
- e. The acoustical blankets shall be waterproof, oil- and UV-resistant, anti-fungal, and flame retardant.
- f. If necessary, a view window may be incorporated into the acoustical blankets in order to facilitate the operation of the pile driver. The window shall be constructed of clear vinyl material that weighs at least 1 pound per square foot. The seams where the window attaches to the acoustical blankets shall be tightly sealed to eliminate gaps. The size of the window shall be kept to the minimum required for safe operation of the pile driver. At all times the window shall be oriented away from the nearby parks (Embarcadero Marina Park North and South, and Fifth Avenue Landing Park).

MM-NOI-2: Notify Users of Nearby Recreational Areas. If impact-type pile driving construction techniques cannot be avoided, the project proponent or its construction contractor shall post public noticing not less than 48 hours prior to initiating landside or waterside pile driving activities within 700 feet of a public recreational area (e.g., Embarcadero Marina Park South and Fifth Avenue Landing Park). The project proponent shall include this measure in the construction specification documents for the proposed project. Prior to issuance of the construction specification documents for bid, the project proponent shall submit a copy of the construction specification documents and the proposed public notice sign to the District's Development Services Department for approval. Prior to the commencement of impact-type pile driving activities, the project proponent shall submit documentation (including photographs) to the District's Development Services Department demonstrating compliance with this measure.

MM-NOI-3: Reduce Construction Noise from Other (Non-Pile Driving) Activities. During all construction activity, the project proponent and its construction contractor shall implement the following techniques and best practices to reduce noise levels from non-pile driving construction activities.

- a. Prohibit all construction activities outside the hours of 7:00 a.m. to 7:00 p.m. on Monday through Saturday. No construction activity shall occur at any time on Sundays or legal holidays. Construction personnel shall not be permitted on the project site (including laydown and storage areas), and material or equipment deliveries and collections shall not be permitted during the prohibited hours.
- b. Ensure that all construction equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency complies with such regulation while in the course of project activity and use on site.
- c. Properly maintain all construction equipment used during project construction and remove any equipment from service, until it is properly repaired, that generates increased noise levels because of any defect or damage.
- d. Equip all construction equipment, where applicable, with properly operating and maintained mufflers, air-inlet silencers, and any other shrouds, shields, or other noise-reducing features that meet or exceed original factory specifications.

- e. Operate construction equipment only when necessary, and switch off powered equipment when not in use. Prohibit the idling of inactive construction equipment for more than 2 minutes.
- f. Restrict the use of noise-producing signals, including horns, whistles, alarms, and bells, for safety warning purposes only.
- g. Install temporary noise barriers around the project site during the demolition, site preparation (including dewatering and shoring), excavation, and foundation phases of construction, to the extent practicable. For periods (if any) when these construction activities are restricted to a smaller portion of the whole site, barriers may be installed around that smaller portion of the site. Alternatively, if a site perimeter barrier cannot be constructed, a localized barrier shall be installed around any noisy stationary construction equipment such as generators or dewatering pumps. For barriers to be effective, they should break the line of sight between the construction equipment and any noise-sensitive receiver. These barriers may be constructed as follows:
 - 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 and lined with sound-absorptive material (the sound-absorptive material should face the construction equipment).
 - From acoustical blankets hung over or from a supporting frame. The blankets should provide a minimum sound transmission class rating of 28 and a minimum noise reduction coefficient of 0.80 and should be firmly secured to the framework with the sound-absorptive side of the blankets oriented toward the construction equipment. The blankets should be overlapped by at least 6 inches at seams and taped so that no gaps exist. The largest blankets available should be used in order to minimize the number of seams. The blankets shall be draped to the ground to eliminate any gaps at the base of the barrier.
- h. Train all construction employees in the proper operation and use of the equipment they use during the course of their work.

Operation

For **Impact-NOI-2**:

MM-NOI-4: Design and Construct Project Facilities to Control Noise from All Onsite Mechanical Equipment. The project proponent shall design and construct all building systems and mechanical equipment proposed as part of the project to ensure their compliance with the City of San Diego noise ordinance (Municipal Code section 59.5.0401). To achieve this performance standard, during the architectural and engineering design phase of each element of the proposed project (e.g., market-rate hotel tower, lower-cost visitor-serving hotel, retail, marina), and prior to the issuance of any building permits for the proposed project, the project proponent shall retain an acoustical consultant to evaluate the design and provide recommendations, as necessary, to ensure that all aspects of the proposed project, including without limitation the mechanical equipment and other onsite stationary sources (e.g., trash compactors, loading docks), shall be constructed so as to comply with the City of San Diego noise ordinance (Municipal Code section 59.5.0401). Such recommendations may include, but are not

limited to, changes in equipment locations; sound power limits or specifications; rooftop parapet walls; acoustical absorption, louvers, screens, or enclosures; or intake and exhaust silencers.

For **Impact-NOI-3**:

MM-NOI-5: Incorporate Operational/Contract Specifications to Minimize Exterior Special Event Noise. The project proponent and any future owner/operator of the proposed project shall observe the following requirements and/or incorporate them into the contract specifications for outdoor events:

1. Any exterior special event associated with the proposed project shall not exceed 65 dBA L_{eq} at the proposed project's property line between the hours of 7:00 a.m. and 7:00 p.m. as mandated by the City of San Diego Municipal Code 59.5.0401. Any concert associated with the proposed project shall not exceed 60 dBA L_{eq} at the project's property line between the hours of 7:00 p.m. and 7:00 a.m. as mandated by the City of San Diego Municipal Code 59.5.0401.
2. Any event that fails to comply with requirement 1, above, shall only be permitted if an applicable event permit, or variance or exemption from the code, has been sought and granted by the appropriate agency (City or District).
3. The project shall comply with all City and District requirements related to hosting outdoor events.

Level of Significance after Mitigation

Construction

Impact-NOI-1 would be reduced by implementing mitigation measures **MM-NOI-1**, **MM-NOI-2**, and **MM-NOI-3**. If impact pile driving can be avoided as described in **MM-NOI-1**, many of the noise impacts shown in Table 4.10-16 would be reduced to less-than-significant levels. If impact pile driving cannot be avoided, the use of an acoustical shroud as described in **MM-NOI-1** would noticeably reduce noise levels, but not to less-than-significant levels. In addition, due to the proximity of the project site, significant impacts would likely still occur at Fifth Avenue Landing Park even at times when pile driving is not occurring. Consequently, after mitigation, **Impact-NOI-1** would remain significant and unavoidable.

Operation

With the implementation of **MM-NOI-4**, **Impact-NOI-2** would be less than significant because the measure would ensure that the project is designed and constructed so that noise from all onsite mechanical equipment and other onsite stationary sources would comply with the City of San Diego noise ordinance (Municipal Code section 59.5.0401).

With the implementation of **MM-NOI-5**, **Impact-NOI-3** would be less than significant because the measure would ensure that exterior special events are conducted in compliance with local requirements. Events would either comply with the noise limits of the City of San Diego noise ordinance (Municipal Code section 59.5.0401) or would be conducted subject to an applicable event permit, variance, or exemption from the code granted by the appropriate agency (City or District).

Threshold 2: Implementation of the proposed project would not expose persons to or 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. A summary of the results is provided in Table 4.10-17, which also includes the vibration threshold(s) applied at each receiver. Vibration levels at some of the analyzed locations are provided for reference only and there no thresholds or impacts assessed for these uses (parks and hotels). Referring to the table, all vibration impacts with regard to both potential building damage and human annoyance would be less than significant.

Table 4.10-17. Estimated Construction Vibration Levels

	R1: Marriott Marquis San Diego Hotel and Marina	R2: Condos north of E Harbor Drive	R3: San Diego Convention Center	R4: Embarcadero Marina Park North	R5: Joe's Crab Shack	R6: Embarcadero Marina Park South	R7: Fifth Avenue Landing Park	R8: Hilton San Diego Bayfront Hotel	R9: Homes in Coronado
Impact Criteria, PPV, in/s									
Potential building damage ¹	0.5	0.5	0.5	N/A ²	0.25	N/A ²	N/A ²	0.5	0.3
Annoyance/interference ³	N/A ⁴	0.04 ⁴	N/A ⁵	N/A ⁵	N/A ⁵	N/A ⁵	N/A ⁵	N/A ⁵	0.04
Estimated Vibration Levels, PPV, in/s – Waterside Construction Activities									
Pile driving - Marina Phase I	0.007	0.009	0.047	0.007	0.025	0.091	0.303	0.020	0.004
Pile driving - Marina Phase II	0.007	0.006	0.015	0.007	0.023	0.084	0.020	0.015	0.006
Estimated Vibration Levels, PPV, in/s – Landside Construction Activities									
Pile driving - Hotel/meeting areas	0.018	0.012	0.209	0.011	0.181	0.066	0.059	0.016	0.004
Pile driving - lower-cost, visitor-serving hotel	0.008	0.011	0.159	0.006	0.023	0.025	0.650	0.023	0.003
Heavy earthmoving equipment	0.003	0.003	0.089	0.002	0.042	0.009	0.089	0.007	<0.001
Vibratory roller	0.006	0.004	0.098	0.004	0.098	0.021	0.210	0.007	0.001
Significant?	No	No	No	No	No	No	No	No	No

Source: Appendix J

¹ All thresholds based on Caltrans' guidelines for vibration damage from continuous/frequent intermittent sources. Value of 0.25 in/s based on threshold for "historic and some old buildings"; value of 0.3 in/s based on threshold for "older residential structures"; value of 0.5 in/s based on threshold for "new residential structures" and "modern industrial/commercial buildings."

² Not applicable because there are no buildings at these locations.

³ All thresholds based Caltrans' guidelines for vibration annoyance/interference from continuous/frequent intermittent sources. Value of 0.04 in/s at homes is based on the "distinctly perceptible" criterion; value of 0.1 in/s at parks is based on the higher "strongly perceptible" criterion because people engaged in outdoor activity are typically less sensitive to groundborne vibration than those in sensitive buildings.

⁴ Not applicable because hotels are not considered sensitive during the daytime hours when construction would occur.

⁵ Not applicable because the land use is not considered sensitive to vibration annoyance impacts.

Operation

There are no proposed operational activities at the project site that would generate substantial groundborne vibration that would be perceptible at any surrounding land uses. Therefore, there would be no impact from operation of the proposed project.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 3: Implementation of the proposed project would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact Discussion**Construction**

Noise increases due to construction would be temporary and are discussed under Threshold 4, below.

Operation***Traffic***

Traffic noise increases are assessed using the analysis as discussed under Threshold 1, above. The City of San Diego's CEQA Significance Determination Threshold for assessing traffic noise impacts considers both absolute noise levels and a project's contribution to noise level increases when determining whether an impact is significant. Referring to the summary of traffic noise levels in Table 4.10-16, the only location where traffic noise levels would increase by 3 dB or more as a result of the proposed project would be adjacent to Park Boulevard south of Harbor Drive, under Existing with Project conditions, where noise levels would increase by 3.5 dB. The only noise-sensitive land use at this location is the Hilton San Diego Bayfront Hotel. Because the noise level would remain below the applicable noise standard of 65 dB CNEL for hotels, and the total noise increase would be less than 5 dB, the impact would be less than significant.

Onsite Operations

Noise increases from onsite operations are addressed based on the analyses provided under Threshold 1, above, and the ambient noise levels measured at the closest noise-sensitive receptors. Each of the primary onsite noise sources is discussed below.

Mechanical Equipment

As noted under Threshold 1, preliminary mechanical equipment information indicates equipment noise levels of up to 71 dBA at a distance of 50 feet and 65 dBA at a distance of 100 feet, with increased noise levels when multiple pieces of equipment operate simultaneously. Fifth Avenue Park is less than 100 feet east of the proposed buildings. Based on the existing measured ambient noise level of approximately 54 dBA, mechanical equipment noise levels of 65 dBA would increase ambient levels by approximately 11 dB, which would be a significant impact (**Impact-NOI-4**). Therefore, a mitigation measure (in the form of a performance specification) is required.

Loading Docks

As noted under Threshold 1, loading docks would not affect noise-sensitive receptors due to their location, layout, and orientation. As such, they would not cause significant noise increases at any noise-sensitive receptor, and the impact would be less than significant.

Exterior Activities

As noted under Threshold 1, day-to-day activities at the exterior areas of the proposed project (public plaza and park areas, outdoor dining areas, swimming pools) would generate modest noise levels from people talking and laughing as they utilize the restaurants, retail, and open space. The same noise levels already occur in the area from people using the existing parks and Embarcadero Promenade; therefore, the impact of project noise would be less than significant.

Larger outdoor special events could generate higher noise levels due to having a larger number of attendees and live or recorded music. These noise levels could foreseeably increase ambient noise levels by more than 5 dB, especially when they occur during the quieter evening hours (**Impact-NOI-5**). Therefore, a mitigation measure (in the form of a performance specification) is included.

Marina Operation

As noted under Threshold 1, operations at the marina would typically be very quiet because the slips would be used for vessel storage and vessels would leave the area when in use. The estimated hourly average noise level from the marina of up to 59 dBA at the adjacent Embarcadero Marina Park South would increase the measured ambient noise level of 58 dBA by approximately 4 dB. This increase is below the applicable threshold of 5 dB. Therefore, the noise impact would be less than significant.

Level of Significance Prior to Mitigation

Construction

Construction of the proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the proposed project. Impacts would be less than significant.

Operation

Operation of the proposed project would potentially result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the proposed project. Potentially significant impact(s) include:

Impact-NOI-4: Potentially Substantial Increase in Ambient Noise Levels Due to Onsite Operational Noise from Mechanical Equipment. Potentially significant noise increases could occur due to onsite project operations if mechanical systems and other stationary noise sources (e.g., trash compactors, loading docks) are not properly designed to control noise.

Impact-NOI-5: Potentially Substantial Increase in Ambient Noise Levels Due to Outdoor Special Events. Outdoor event noise has the potential to increase existing ambient noise levels by more than 5 dB at nearby noise-sensitive receptors dependent upon the exact nature and timing of events and the sound system used.

Mitigation Measures

Construction

No mitigation is required.

Operation

For **Impact-NOI-4**:

MM-NOI-4: Design and Construct Project Facilities to Control Noise from All Mechanical Equipment, as described above.

For **Impact-NOI-5**:

MM-NOI-5: Incorporate Operational/Contract Specifications to Minimize Exterior Special Event Noise, as described above.

Level of Significance after Mitigation

Construction

Impacts would be less than significant.

Operation

With the implementation of **MM-NOI-4**, **Impact-NOI-4** would be less than significant because the measure would ensure that the project is designed and constructed so that noise from all onsite mechanical equipment and other onsite stationary sources would comply with the City of San Diego noise ordinance (Municipal Code section 59.5.0401).

Impact-NOI-5 would be reduced by implementing mitigation measure **MM-NOI-5**. However, large events may operate under a permit/variance/exemption that allows the event to exceed typical noise limits. Under these circumstance noise increases of 5 dB or more would likely occur at neighboring noise-sensitive receptors and the impact would remain significant and unavoidable.

Threshold 4: Implementation of the proposed project would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact Discussion

Construction

As analyzed and indicated under Threshold 1, construction traffic would not generate noise levels in excess of existing traffic noise levels and the impact from construction-related traffic noise would be less than significant.

In order to assess noise increases due to onsite construction activities, the construction noise levels presented in Table 4.10-15 were compared to the average measured daytime noise levels for each of the affected noise-sensitive receivers. The results of this comparison are provided in Table 4.10-18; noise increases that exceed the threshold of 5 dBA or more at noise-sensitive receptors are indicated with bold text in the table. Significant impacts due to noise increases of 5 dBA or more would occur at Embarcadero Marina Park North and South, and Fifth Avenue Landing Park during multiple phases of project construction. A significant impact would also occur at homes on the north side of East Harbor Drive during simultaneous pile driving for the market-rate hotel tower and meeting areas, and for the lower-cost visitor-serving hotel (phases 2.1 and 3.1 combined). Worst-case noise increases would be up to approximately 37 dBA and would be associated with pile driving activities. Impacts due to non-pile driving construction would be limited to Embarcadero Marina Park South and Fifth Avenue Landing Park, and would occur during most major phases of construction. As such, substantial temporary noise impacts would occur at the nearby parks (**Impact-NOI-6**).

Table 4.10-18. Estimated Noise Increases Due to Project Construction

Construction Phase/Activity	Increase in 12-Hour L_{eq} , 7 a.m. to 7 p.m., dBA ¹				
	R2: Condos on E Harbor Drive	R4: Embarcadero Marina Park North	R6: Embarcadero Marina Park South	R7: Fifth Avenue Landing Park	R9: Homes in Coronado
Landside Construction					
Phase 1 – Mobilization and Site Preparation					
1.1 Mobilization/Demolition	0.2	1.1	6.5	17.9	0.2
1.2 Dewatering/Shoring	0.2	0.9	6.0	17.2	0.1
Phase 2 – Market-Rate Hotel Tower & Meeting Areas					
2.1 Excavation and Foundation	4.4	11.3	22.2	23.8	3.7
2.2 Structural Frame	0.2	1.4	7.8	9.2	0.2
2.3 Exterior Closure and Roofing	0.1	0.7	5.2	6.4	0.1
2.6 Interior Construction/Finishes	0.1	0.5	4.2	5.3	0.1
2.7 MEP Systems	0.1	0.7	5.2	6.4	0.1
Phase 3 – Lower-Cost, Visitor-Serving Hotel					
3.1 Foundations	2.7	5.5	15.1	36.5	2.1
3.2 Structural Frame	0.1	0.2	1.8	18.9	0.0
3.3 Exterior Closure	0.1	0.2	1.9	18.9	0.0
3.4 Interior Construction/Finishes	0.0	0.1	1.5	17.7	0.0
3.5 Phase Completion Work	0.0	0.1	1.5	17.7	0.0
Phase 4 - Site Work					
4.1 Offsite Demolition/Grading/Utilities	0.4	1.0	2.6	15.4	0.2
4.4 Site Improvements	0.4	2.0	9.2	21.1	0.3
Overlapping Activities					
1.2 + 2.1	4.5	11.4	22.3	24.8	3.7
2.1 + 3.1	5.6	12.1	23.0	36.8	4.7
2.2 + 3.1	2.9	5.9	15.7	36.5	2.2
2.2 + 2.7 + 3.1	2.9	6.1	16.0	36.5	2.3

Construction Phase/Activity	Increase in 12-Hour L_{eq} , 7 a.m. to 7 p.m., dBA ¹				
	R2: Condos on E Harbor Drive	R4: Embarcadero Marina Park North	R6: Embarcadero Marina Park South	R7: Fifth Avenue Landing Park	R9: Homes in Coronado
2.2 + 2.5 + 2.7 + 3.1	2.9	6.1	16.0	36.5	2.3
2.2 + 2.5 + 2.7 + 3.1 + 3.2	2.9	6.2	16.0	36.6	2.3
2.2 + 2.3 + 2.5 + 2.7 + 3.1 + 3.2	3.0	6.4	16.3	36.6	2.4
2.2 + 2.3 + 2.5 + 2.7 + 3.1 + 3.2 + 4.1	3.2	6.6	16.4	36.6	2.5
2.2 + 2.3 + 2.5 + 2.7 + 3.1 + 3.2 + 3.3 + 4.1	3.2	6.7	16.4	36.7	2.5
2.2 + 2.3 + 2.5 + 2.6 + 2.7 + 3.1 + 3.2 + 3.3 + 4.1	3.3	6.8	16.6	36.7	2.5
2.2 + 2.3 + 2.5 + 2.6 + 2.7 + 3.1 + 3.2 + 3.3 + 3.4 + 4.1	3.3	6.8	16.6	36.8	2.5
2.3 + 2.5 + 2.6 + 2.7 + 3.3 + 3.4 + 4.1	0.8	2.6	9.6	22.5	0.5
2.3 + 2.6 + 2.7 + 3.3 + 3.4 + 4.1	0.8	2.6	9.6	22.5	0.5
2.3 + 2.6 + 3.3 + 3.4 + 4.1	0.7	2.2	8.3	22.5	0.4
2.3 + 2.6 + 3.3 + 3.4 + 4.4	0.7	2.9	11.2	24.3	0.5
Waterside Construction					
Marina Phase I					
Phase I.1 Construction Without Pile Driving	0.2	1.2	10.6	18.7	0.3
Phase I.2 Construction With Pile Driving	1.8	6.8	21.0	29.5	2.8
Marina Phase II					
Phase II.1 Construction Without Pile Driving	0.1	1.2	10.0	6.6	0.5
Phase II.2 Construction With Pile Driving	1.2	6.7	20.4	16.4	3.8
Source: Appendix J					
¹ Noise increases that exceed the threshold of 5 dBA or more at noise-sensitive receivers are indicated with bold text.					

Operation

Noise increases associated with project operation would be considered permanent and are addressed under Threshold 3, above.

Level of Significance Prior to Mitigation

Construction

Construction of the proposed project would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the proposed project.

Potentially significant impact(s) include:

Impact-NOI-6: Significant Temporary Increase in Ambient Noise Levels During Project Construction. Significant noise increases of 5 dBA or more would occur at noise-sensitive receptors during project construction. These impacts would occur at Embarcadero Marina Park North and South, and Fifth Avenue Landing Park during multiple phases of project construction, and at homes on the north side of East Harbor Drive during simultaneous pile driving for the market-rate hotel tower and meeting areas, and the low-cost visitor-serving hotel (phases 2.1 and 3.1 combined).

Operation

Operation of the proposed project would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the proposed project. Impacts would be less than significant.

Mitigation Measures

Construction

For **Impact-NOI-6**.

MM-NOI-1: Avoid or Reduce Construction Noise from Impact-Type Pile Driving, as described above.

MM-NOI-2: Notify Users of Nearby Recreational Areas, as described above.

MM-NOI-3: Reduce Construction Noise from Other (Non-Pile Driving) Activities, as described above.

Operation

No mitigation is required.

Level of Significance after Mitigation

Construction

Although it is anticipated that **Impact-NOI-6** would be reduced by implementing mitigation measures **MM-NOI-1**, **MM-NOI-2**, and **MM-NOI-3**, the exact level of noise reduction that would be obtained by the proposed measures is uncertain. However, even with full implementation, noise

increases of 5 dBA or more would not be eliminated. Consequently, after mitigation, **Impact-NOI-5** would remain significant and unavoidable.

Operation

Impacts would be less than significant.

Threshold 5: Implementation of the proposed project would not exacerbate the existing exposure of people residing or working in the project area within 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.

Impact Discussion

Pursuant to the recent Supreme Court case decision in the CBIA vs. BAAQMD case, CEQA does not require an analysis of how the existing environmental conditions will 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 exposing people residing or working in the project area to excessive noise levels, the analysis will first determine if there is a potential for the project to exacerbate the issue. If evidence indicates it would not, then the analysis will 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.

Construction

Because a construction site is not considered to be a noise-sensitive use, airport-related noise impacts would not occur during project construction.

Operation

The project site is less than 2 miles from SDIA and is within the Airport Influence Area as identified by the ALUCP (Airport Land Use Commission, San Diego County Regional Airport Authority 2014). The project site is also less than 2.5 miles from Naval Air Station North Island.

Referring to Exhibit 2-1 of the SDIA ALUCP, the project site is outside the airport noise contours, indicating a noise exposure of less than 60 dB CNEL from SDIA. Referring to Figure 4-8 of the *Air Installation Compatible Use Zones Study Update for NAS North Island and Naval Outlying Landing Field Imperial Beach* (Onyx Group 2011), the project site is well outside the airport noise contours, indicating a noise exposure of substantially less than 65 dB CNEL from Naval Air Station North Island. As a result, the overall aircraft noise levels at the project site would be less than 65 dB CNEL. Implementation of the project would not change daily operations (e.g., the number or timing of takeoffs and landings, type of aircraft) at SDIA or Naval Air Station North Island. Therefore, the project would not exacerbate any existing airport-related noise conditions and there would be no impact.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not exacerbate the existing exposure of people residing or working in the project area within 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. There would be no impact.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

No impact would occur.

Threshold 6: Implementation of the proposed project would not exacerbate the existing exposure of people residing or working in the project area within the vicinity of a private airstrip to excessive noise levels.

Impact Discussion

Refer to the Impact Discussion under Threshold 5, above, for clarification of the requirements for assessing potential impacts related to the exacerbation of existing environmental conditions.

Construction

Because a construction site is not considered to be a noise-sensitive use, aircraft-related noise impacts would not occur during project construction.

Operation

There are no private airstrips within 2 miles of the project site. Heliports at San Diego Police Headquarters and Naval Medical Center San Diego are approximately 1 mile and 1.7 miles southeast of the project site, respectively. At these distances, noise levels at the project site would be negligible. Implementation of the project would not change daily operations (e.g., the number or timing of takeoffs and landings, type of aircraft) at any private airstrip. Therefore, the project would not exacerbate any existing airstrip-related noise conditions and there would be no impact.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not exacerbate the existing exposure of people residing or working in the project area within the vicinity of a private airstrip to excessive noise levels. There would be no impact.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

No impact would occur.

Section 4.11

Public Services and Recreation

4.11.1 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 effect 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 a 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 as part of the proposed project.

Table 4.11-1 summarizes the significant impacts and mitigation measures discussed in this section.

Table 4.11-1. Summary of Significant Public Services and Recreation 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-PS-1: Construction of the Rooftop Public Plaza and Park Areas Would Contribute to Significant Impacts Related to Impact-AES-1, Impact-AES-4, Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, Impact-HAZ-1, Impact-HAZ-3, Impact-NOI-1, Impact-NOI-6, Impact-TRA-1, Impact-TRA-2, and Impact-TRA-6	Implement MM-AES-1 and MM-AES-5 as described in Section 4.1, <i>Aesthetics and Visual Resources</i> ; MM-CUL-1 and MM-CUL-2 as described in Section 4.4, <i>Cultural Resources</i> ; MM-GEO-1 as described in Section 4.5, <i>Geology and Soils</i> ; MM-HAZ-1 through MM-HAZ-4 and MM-HAZ-8 as described in Section 4.7, <i>Hazards and Hazardous Materials</i> ; MM-NOI-1 , MM-NOI-2 , and MM-NOI-3 as described in Section 4.10, <i>Noise and Vibration</i> ; and MM-TRA-1 and MM-TRA-7 as described in Section 4.12, <i>Transportation, Circulation, and Parking</i>	Significant and unavoidable	Implementation of mitigation would reduce this impact as it relates to cultural resources and hazardous materials to less-than-significant levels. However, impacts related to noise and transportation, circulation, and parking would remain significant and unavoidable for the reasons described in their respective sections of this EIR.
Impact-PS-2: Operation of the Rooftop Public Plaza and Park Areas Would Contribute to Significant Impacts	Implement MM-AES-2 , MM-AES-3 , and MM-AES-4 as described in Section 4.1, <i>Aesthetics and Visual Resources</i> ; MM-NOI-5 as	Significant and unavoidable	Even with the implementation of mitigation measures, impacts related to aesthetics, noise, and transportation, circulation,

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Related to Impact-AES-2, Impact-AES-3, Impact-NOI-3, Impact-NOI-5, Impact-TRA-3, Impact-TRA-4, and Impact-TRA-7	described in Section 4.10, <i>Noise and Vibration</i> ; and MM-TRA-2 through MM-TRA-5 and MM-TRA-8 as described in Section 4.12, <i>Transportation, Circulation, and Parking</i>		and parking would remain significant and unavoidable for the reasons described in their respective sections of this EIR.
Impact-PS-3: Potential for Insufficient Wayfinding and Accessibility Signage to Inform Public that the Public Plaza and Park Areas Are Available for Public Use and Enjoyment	MM-PS-1: Operation Requirements for the Multi-Function Plaza and Lawn, Public Park Plaza, and Public Park Plaza and Public Observation Terrace Areas MM-AES-2: Install Wayfinding and Public Accessibility Signage	Less than significant	Implementation of mitigation measures would reduce this impact to a less-than-significant level because the public would be aware of the public plaza and park areas, know that they are open to the public, and know how to access them.
Impact-PS-4: Limited Public Access to the Marina	MM-PS-2: Low-Cost or No-Cost Boat Slip	Less than significant	Implementation of mitigation would reduce this impact to a less-than-significant level because the public would have water access via a low-cost or no-cost slip within the proposed marina where currently no such slip exists.

4.11.2 Existing Conditions

4.11.2.1 Fire Protection and Emergency Response

The City of San Diego Fire-Rescue Department (SDFD) and fireboats operated by the San Diego Harbor Police Department (HPD) provide fire protection services to the project site.

City of San Diego Fire-Rescue Department

The SDFD service area covers 331 square miles; SDFD is responsible for 17 miles of coastline extending 3 miles offshore and serves a population of approximately 1,337,000 people. SDFD has 48 fire stations and 9 permanent lifeguard stations (25 seasonal stations during peak period). SDFD employs approximately 1,139 uniformed personnel and 161 civilian personnel, for a total of 1,300 personnel (SDFD 2016).

Four SDFD fire stations are within the project vicinity and would respond in an emergency.

- Station 4 at 404 8th Avenue

- Station 1 at 1222 1st Avenue
- Station 3 at 725 W. Kalmia Street
- Airport Station at 3698 Pacific Highway

Station 4 is the primary responding unit for the project site and has one engine and one heavy rescue vehicle. Station 1 has two engines, one truck, and one battalion chief vehicle. Station 3 has one engine. The Airport Station has four aircraft crash trucks that serve the San Diego International Airport. 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. Heavy rescue vehicles are outfitted with specialized rescue equipment such as Jaws of Life, generator, and winch hoist. An aircraft crash truck is equipped with water, foam, and sometimes Halon 1211, a chemical designed to smother fire (SDFD 2016).

SDFD uses the National Fire Protection Association's 1710 Standard for the Organization and Deployment of Fire Suppression Operations to determine adequate response times. This standard uses a "best practice" initial response time of four firefighters within 5 minutes (1 minute for dispatch and 4 minutes for travel) and an effective fire force of 15 firefighters within 9 minutes (1 minute for dispatch and 8 minutes for travel) (CFD 2010).

Harbor Police Department

HPD provides law enforcement and marine firefighting services in and around the 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 N. Harbor Drive. Substations are at 1401 Shelter Island (Police Dock), "J" Street (South Bay), and San Diego International Airport at Lindbergh Field. As of November 2016, HPD has 130 sworn officers, all trained as firefighters and police officers (District 2016). 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 SDFD if necessary.
- **Vessel Patrol** – HPD vessels patrol San Diego Bay, its associated waterways, and coastal areas, similar to the way it patrols on land. 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. All of HPD's vessels can also accommodate the Dive Rescue Team and the different missions they handle (District 2016).

4.11.2.2 Police Protection

HPD and City of San Diego Police Department (SDPD) both provide police protection services to the project site.

City of San Diego Police Department

SDPD provides law enforcement services for areas within District jurisdiction that generate City tax revenue (e.g., San Diego Convention Center [SDCC], hotels, restaurants). SDPD includes a wide range of units from narcotics, robbery, and vice to education, records, and communications. The proposed project is in SDPD's Central Division, the headquarters of which are at 2501 Imperial Avenue. The division is responsible for a 9.7-square-mile area and a population of 103,524 residents, which extends beyond the Downtown Community Plan boundaries (SDPD 2016).

SDPD's Central Division is currently staffed with 124 sworn personnel and SDPD has a city-wide staffing of 1,862 sworn personnel. Police officers work 10-hour shifts, 4 days a week. SDPD utilizes three shifts, which operate from 6 a.m. to 4 p.m. ("First Watch"), 2 p.m. to 12 a.m. ("Second Watch"), and 9 p.m. to 7 a.m. ("Third Watch"). SDPD currently deploys a minimum of 101 patrol officers on First Watch, 137 officers on Second Watch, and 91 officers on Third Watch (Underwood pers. comm.).

Like SDFD and HPD, the quality of SDPD police protection services is evaluated by the average response time to an emergency call. Table 4.11-2 shows SDPD's standards for determining adequate response times and recent actual response times. As shown, all call type priorities are within SDPD's response time standards. There is also a city-wide goal for SDPD to have 1.45 officers per 1,000 residents. As of November 3, 2016, SDPD has 1,862 sworn officers and a ratio of 1.36 officers per 1,000 residents (Underwood pers. comm.).

Table 4.11-2. San Diego Police Department Response Time Standards and Actual Response Times

Call Type	Description	Standard (minutes)	Actual (minutes)
Priority Emergency (E)	Imminent threat to life	7	6.9
Priority 1	Serious crimes in progress	14	13.2

Source: San Diego Police Department (Underwood pers. comm.) 2016

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. The various locations over which HPD has jurisdiction are described above under 4.11.2.1, *Fire Protection and Emergency Response*.

HPD vehicle patrols monitor all activity on land around the Bay and include the following departments.¹

¹ The Airport Foot Patrol, Airport Vehicle Patrol, and the K-9 Unit provide police protection services to the San Diego International Airport and are not expected to serve the proposed project site.

- **Vehicle Patrol** – HPD provides police protection services throughout the District’s jurisdiction, including portions of the following member cities: San Diego, Coronado, Chula Vista, National City, and Imperial Beach.
- **Bicycle Team** – The Bicycle Team is primarily concerned with patrolling parks and pathways along the San Diego Bay.
- **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 20-member team. All members are able to be called in for any water emergency, around the clock. The team also has a dedicated primary dive boat as well as a towable Rigid Hull Inflatable Boat.
- **Investigations Unit** – The Investigations Unit performs specialized criminal investigations and audits (District 2016).

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 the airport, vehicles, or vessels within the San Diego Bay. As shown in Table 4.11-3, all calls received between January and October 2016 were within HPD’s response time standards, and there are no identified deficiencies in HPD services.

Table 4.11-3. Harbor Police Department Response Time Standards and Actual Response Times

Call Type	Location	Standard (minutes)	Actual (minutes: seconds)
First Priority	Airport	5	4:04
	Vehicle	7	5:49
	Vessel	9	7:03

Notes: Responses times are from January 2016 to October 2016

Source: Harbor Police Department (Walker pers. comm.), 2016

4.11.2.3 Public Schools

The project site is within the boundary of the San Diego Unified School District, the second largest school district in California. There are 10 public schools within 2 miles of the project site. San Diego Unified School District schools within the project vicinity, beginning with the closest, include Monarch K-12 School 0.58 mile to the southeast, Perkins Elementary School 0.68 mile to the southeast, King-Chavez Community High School 0.72 mile to the north, Garfield High School 1.13 miles to the northeast, Sherman Elementary School 1.05 miles to the east, San Diego High School 1.07 miles northeast, Washington Elementary School 1.24 miles to the north, Burbank Elementary School 1.30 miles to the southeast, Logan K-8 School 1.60 miles to the southeast, and Museum K-8 School 1.80 miles to the north.

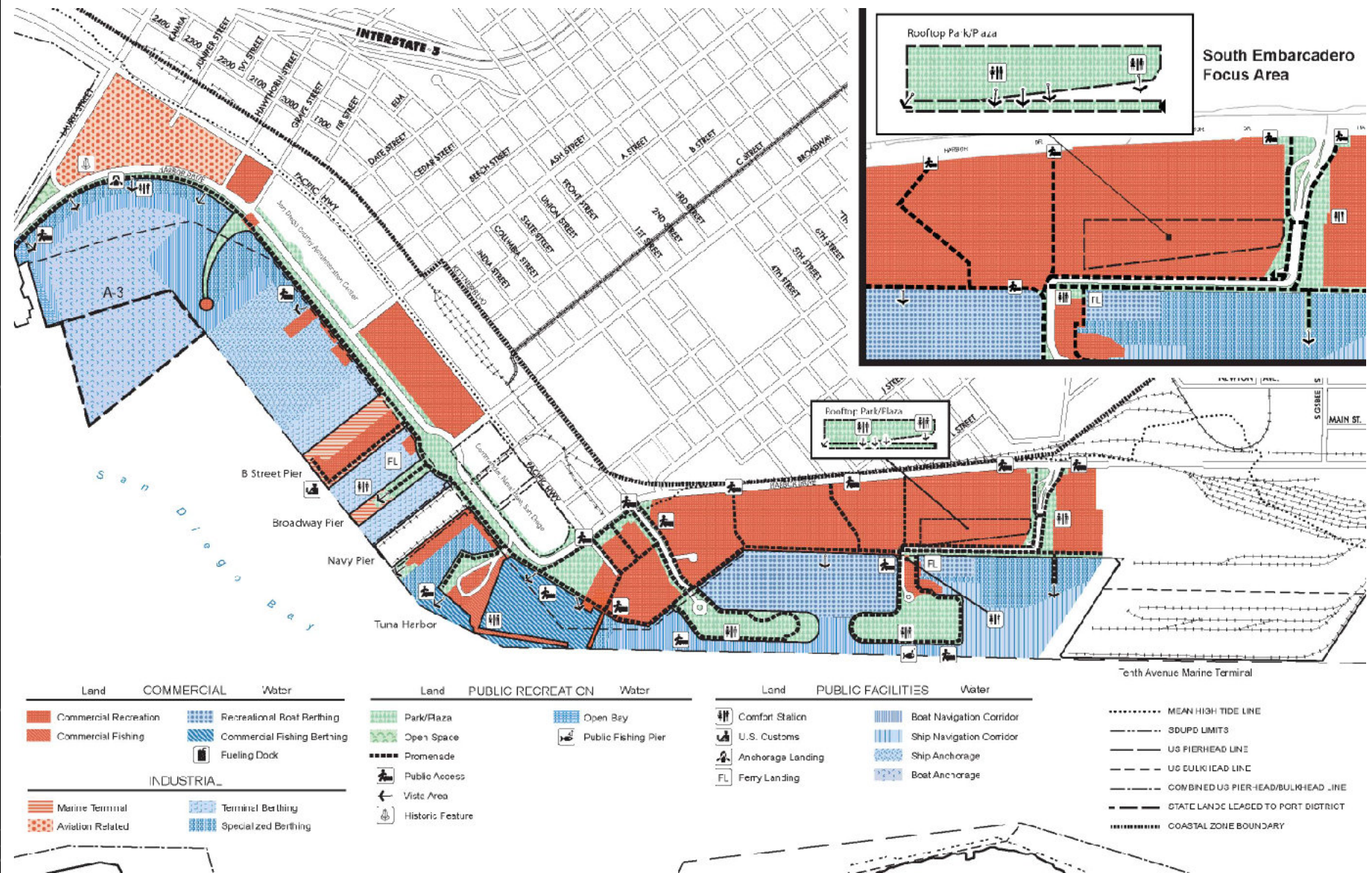
Other public schools within 2 miles of the project site are within the boundary of the Coronado Unified School District and include Village Elementary School, Coronado Middle School, and Coronado High School, all located southwest across the Bay on Coronado.

4.11.2.4 Parks and Recreational Facilities

The proposed project is located in an area that provides many public and commercial recreational opportunities, as indicated on Figure 4.11-1, which shows the Port Master Plan's (PMP's) Centre City Embarcadero Planning District Precise Plan. The Centre City Embarcadero Planning District allocates a balanced distribution of commercial, industrial, public facility, and public recreation, with public recreation totaling approximately 26% of the land area.

The project site contains lands designated for Commercial Recreation and Park/Plaza uses, with a total of approximately 30,300 square feet of existing park/plaza space on site. As indicated on Figure 4.11-2, the project site is directly adjacent to and east of Embarcadero Marina Park South, 0.4 mile east of Embarcadero Marina Park North, 0.2 mile south of Martin Luther King Promenade Park, 0.3 mile south of Children's Park and Pond, and 0.4 mile southwest of the Park at the Park.

Embarcadero Marina Park South is on the bayward side of the SDCC and features parking, a fishing pier, basketball courts, gazebos, and a concession stand. Embarcadero Marina Park North borders Seaport Village and features parking, a gazebo, and expansive recreation and event space. Martin Luther King Promenade Park is a 12-acre linear park and promenade that parallels the San Diego Trolley tracks. Within the Martin Luther King Promenade Park is the Children's Park and Pond, which consists of a fountain, reflecting pool, and surrounding park space. The Park at the Park is a promenade within Petco Park stadium that is open to the public and consists of grass areas and a whiffle ball field.



**Figure 4.11-1
Precise Plan
Fifth Avenue Landing Project**

4.11.3 Applicable Laws and Regulations

4.11.3.1 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 an amendment to a PMP 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 an amendment to the PMP and is an appealable development pursuant to the CCA. As such, the proposed Port Master Plan Amendment (PMPA) must be consistent with the Chapter 3 policies of the CCA, including Chapter 3, Articles 2 and 3, which include policies that govern public access and recreational opportunities. Policies included in Article 2 pertain to maintaining access to the coast, 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, a Coastal Development Permit is required to proceed with the proposed project, consistent with the PMPA.

California Building Code – 24 CCR 9

Title 24, Part 9 of the California Building Code contains fire-safety-related building standards referenced in other parts of Title 24. This code includes portions of the 2012 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.

San Diego Unified Port District Act

The San Diego Unified Port District Act (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 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.

4.11.3.2 Local

Port of San Diego Port Master Plan

Land uses and development along the waterfront are guided by the PMP, which divides tidelands around the Bay into ten Planning Districts, each with its own corresponding Precise Plan. The proposed project is included in Planning District 3–Centre City Embarcadero. The Precise Plan for Planning District 3 in the PMP allows for the development of commercial fishing and recreation uses; aviation- and marine-related industrial uses; parks, plazas, promenades, and open space; public facilities; and industrial uses (District 2015). Parks and other public recreation facilities within Planning District 3 are illustrated on Figure 4.11-1 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.

4.11.4 Project Impact Analysis

4.11.4.1 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 component of the proposed project. Their responses are summarized below in Section 4.11.4.3, *Project Impacts and Mitigation Measures*.

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 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 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 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. Recreation
 - a. 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.
 - b. Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

4.11.4.3 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 an 850-room market-rate hotel tower; a 565-bed lower-cost, visitor-serving hotel; approximately 6,000 square feet of retail development along the Embarcadero Promenade; approximately 1.96 acres (85,490 square feet) of public plaza and park areas throughout the project site, which would replace 0.7 acre (30,300 square feet) of at-grade commercial recreation and park/plaza located within the area proposed for the lower-cost, visitor-serving hotel; approximately 263 onsite parking spaces; expansion of the marina including up to 50 new slips; and an optional connecting bridge from the hotel rooftop public plaza and park areas to the SDCC. In addition, the proposed project includes the construction of offsite utility improvements and the use of the R.E. Staite property (which includes an existing construction equipment staging lot) located approximately 2.2 miles from the project site for construction worker parking and construction staging. Construction of the proposed project is anticipated to occur over a 24- to 30-month period, with the exception of Phase II of the marina expansion, which is not anticipated to occur until 5 years after the hotel becomes operational. During construction, there could be a need to respond to the project site for construction-related injuries or an accidental fire. Construction of the waterside components may generate an increased need for HPD's fireboats should any waterside emergencies occur. Fire protection and emergency response would be provided by SDFD (landside components, offsite utility improvements, and staging/parking areas) and HPD (waterside components).

SDFD Fire Station 4, located about 0.4 mile north of the project site at 404 8th Avenue in the City of San Diego, would be the primary responder for the landside portion of the proposed project. Other SDFD fire stations that would respond to the landside portions of the site include Stations 1 and 3, about 0.87 mile north and 1.67 miles northwest, respectively, of the project site. Construction of the proposed project would not require long-term road closures. SDFD indicated that it would be able to accommodate the proposed project, without the need for construction of new facilities (Trame pers. comm.).

Additionally, HPD provides marine firefighting services in and around San Diego Bay for the District. In addition to watercraft enforcement, HPD patrol boats can also serve as firefighting boats that respond to fire emergencies in the Bay. The fireboats can be cooperatively used with SDFD if 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 the Bay and would be able to respond within the HPD's goal times (Brick 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 2013 California Fire Code and 2012 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 waterfront visitors. This would potentially place increased demand on the fire and emergency response services of SDFD and HPD.

A review of the proposed project by SDFD and HPD determined that, if it is implemented, both SDFD and HPD would be able to provide adequate response within the desired performance standard without the need for new or altered facilities. The proposed project would, however, increase call volumes for SDFD (Trame pers. comm.). HPD would be able to respond to the project site within the recommended response times of 7 and 9 minutes for emergency services for vehicle and vessels, respectively (Brick pers. comm.).

In addition, the offsite utility improvements and construction staging/parking would revert to their existing conditions once construction is complete. Therefore, there are no operational aspects of these components of the proposed project.

Therefore, because new or physically altered governmental 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 service, the proposed project's impact on SDFD 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 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. Impacts would be less than significant.

Mitigation Measures

No mitigation is 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; and, in the event of any criminal activity, local law enforcement services would be needed to respond to the project site.

As stated in Section 4.11.2, *Existing Conditions*, the first responders to any police protection requests at the project site would be provided from either the SDPD Central Division station or the HPD headquarters and administration building at 3380 N. Harbor Drive. The Central Division is currently under SDPD's target response times for all priorities and meets acceptable response times. Also, as noted during communication with SDPD, construction of the proposed project would not require new or altered government facilities in order to maintain acceptable response times and service ratios (Underwood pers. comm.).

In addition to police protection services provided by SDPD, HPD has indicated that with current staffing, the proposed project would receive adequate law enforcement service and response times would remain at acceptable levels, and new or altered government facilities would not be required (Brick pers. comm.)

Therefore, no new or physically altered governmental facilities would be required as a result of project construction (including offsite utility improvements and construction staging/parking) in order to maintain acceptable response times, service ratios, or other performance standards for police protection. Impacts would be less than significant.

Operation

In addition to the police protection required during construction of the proposed project, operation of the proposed project would attract more hotel guests and retail and bayfront visitors to the project site than under present conditions. As with the construction phase, HPD's response capabilities to the project site would not be significantly affected, and continued acceptable service levels would be provided under project operation conditions (Brick pers. comm.). Similarly, SDPD states that police response times are currently acceptable (Underwood pers. comm.). Therefore, operation of the proposed project would not require new or expanded facilities in order to maintain acceptable response times and service ratios (Underwood pers. comm.; Brick pers. comm.).

In addition, the offsite utility improvements and construction staging/parking would revert to their existing conditions once construction is complete. Therefore, there are no operational aspects of these components of the proposed project.

No new or physically altered governmental facilities would be required as a result of the proposed project's operation in order to maintain acceptable response times, service ratios, or other performance standards for police protection. 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, response times, or other performance objectives for police protection. Impacts would be less than significant.

Mitigation Measures

No mitigation is 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 government 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 does not include a residential component. Project site users would consist mainly of hotel guests, retail visitors, and recreational waterfront 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 consequence of the proposed project's implementation. There would be no impact on public 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 governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools. No impact would occur.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

No impact would occur.

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 proposed project is located entirely 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, the City of San Diego, or Civic San Diego. 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 the San Diego Bay and public access throughout District lands. Additionally, the proposed project would include a public park/plaza of approximately 1 acre, a public promenade along the waterfront, a pedestrian bridge(s), and a public observation terrace. Finally, Chapter 3, Articles 2 and 3 of the CCA pertain to maintaining access and providing recreational opportunities to the coast.

Construction

As mentioned, the proposed project includes the construction of approximately 1.96 acres (85,490 square feet) of public plaza and park areas throughout the project site. Potential impacts associated with construction of the proposed project, including the proposed public plaza and park areas, are analyzed throughout the applicable sections of this EIR, including Sections 4.1, *Aesthetics and Visual Resources*; 4.2, *Air Quality and Health Risk*; 4.4, *Cultural Resources*; 4.5, *Geology and Soils*, 4.6, *Greenhouse Gas Emissions and Climate Change*; 4.7, *Hazards and Hazardous Materials*; 4.8, *Hydrology and Water Quality*; 4.10, *Noise and Vibration*; and 4.12, *Transportation, Circulation, and Parking*. Construction of the proposed public park and plaza areas would not result in impacts related to air quality and health risk, greenhouse gas emissions and climate change, or hydrology and water quality.

As discussed in Section 4.1, *Aesthetics and Visual Resources*, construction of the proposed project has the potential to result in visual impacts on vista areas as a result of obstructed views from the protrusion of large construction equipment, including cranes, scaffolding, and other construction materials, into the viewshed of the SDCC rooftop plaza, which would result in a temporary significant impact (**Impact-AES-1**). Additionally, construction of the proposed project would potentially introduce a new source of temporary nighttime lighting from the use of overnight security lights at the project site (**Impact-AES-4**).

As discussed in Section 4.4, *Cultural Resources*, there is a potential that historical archaeological resources, specifically CA-SDI-15118H, could be unearthed during project construction. As such, the proposed project could significantly affect CA-SDI-15118H if portions of the site were unearthed during construction of the proposed public plaza and park areas (**Impact-CUL-1**). In addition, there is a potential to significantly affect highly sensitive paleontological resources due to excavation that would extend 10 feet or more below ground surface and that would include the movement of more than 1,000 cubic yards of soil (**Impact-CUL-2**).

As discussed in Section 4.5, *Geology and Soils*, the proposed project would include excavation of soil and construction of structures and public plaza and park areas within areas of high liquefaction and unstable soil. These activities could loosen soil compaction and otherwise disturb the existing geologic conditions, thus exacerbating the potential for liquefaction, lateral spreading, and soil collapse to occur, if compliance with regulations does not occur (**Impact-GEO-1** and **Impact-GEO-2**).

In addition, as discussed in Section 4.7, *Hazards and Hazardous Materials*, there is a potential that contaminated soils may be encountered during construction and excavation activities for the proposed project. In the event contaminated soils are encountered, there is a potential that hazardous materials could be released into the environment and the existing hazardous conditions could be exacerbated (**Impact-HAZ-1**). Additionally, the Federal Aviation Administration (FAA) has not yet completed a determination for the use of a crane during construction, which is proposed to be approximately 50 feet higher than the proposed market-rate hotel tower. Because the project site is located within the planning area of an airport land use plan, the proposed project could affect the safe and efficient utilization of the navigable airspace by aircraft or the operation of air navigation facilities due to the height of construction equipment and structures (**Impact-HAZ-3**).

As discussed in Section 4.10, *Noise and Vibration*, construction of the proposed project would exceed the City's adopted standards for construction noise and would result in significant temporary increases in ambient noise levels. These impacts would be significant (**Impact-NOI-1** and **Impact-NOI-6**).

Furthermore, as discussed in Section 4.12, *Transportation, Circulation, and Parking*, construction of the proposed project would generate construction traffic that would worsen the existing level of service at one study area roadway segment and delay experienced during peak hours at 11 study area intersections in exceedance of the City's thresholds. Additionally, the proposed project would result in insufficient parking during project construction, including construction of the proposed public plaza and park areas. These impacts would be significant (**Impact-TRA-1**, **Impact-TRA-2**, and **Impact-TRA-6**).

Overall, these significant construction-related impacts, while not specifically associated with the construction of the public plaza and park areas, would be more severe with the addition of the public plaza and park areas construction than without. Therefore, significant impacts associated

with the construction of the public plaza and park areas would occur as a result of construction-related impacts (**Impact-AES-1, Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, Impact-HAZ-1, Impact-NOI-1, Impact-NOI-6, Impact-TRA-1, Impact-TRA-2, and Impact-TRA-6**) (**Impact-PS-1**).

In addition, the proposed project includes the construction of offsite utility improvements and the use of the R.E. Staite property (which includes an existing construction equipment staging lot) located approximately 2.2 miles from the project site for construction worker parking and construction staging. However, these offsite improvements and staging areas are located within existing roadways or existing construction staging lots and would not result in impacts on government facilities or parks.

Operation

Physical Impacts of Operation

The proposed project would increase the total area of public plaza and park areas from approximately 30,300 square feet (0.7 acre) to approximately 85,490 square feet (1.96 acres). It should be noted that the existing 0.7-acre park/plaza space has a land use designation of both commercial recreation (ground-level) and park/plaza (elevated). The proposed project would also maintain the existing 35-foot-wide Embarcadero Promenade across the site. Therefore, the proposed project complies with the acreage requirements of the PMP. See Tables 3-2 and 3-3 and Figure 3-12 in Chapter 3, *Project Description*.

Potential physical operational impacts of the proposed project, including the proposed public plaza and park areas, are analyzed throughout this EIR. The following provides a summary of the significant operational impacts associated with the proposed project as they relate to recreational facilities.

As discussed in Section 4.1, *Aesthetics and Visual Resources*, the proposed new rooftop public plaza and park area would take the place of the proposed elevated park/plaza at the SDCC as designated in the existing PMP. Because construction of the market-rate hotel tower would occur within a portion of the vista area, the designated vista areas on the SDCC rooftop would be obstructed if the proposed project restricts access to the terrace and/or does not use transparent materials for the pool deck fencing. This impact would be significant (**Impact-AES-2**). Similarly, operation of the proposed project would displace five vista areas that are designated in the PMP at the planned rooftop plaza and park areas (**Impact-AES-3**).

Additionally, as discussed in Section 4.10, *Noise and Vibration*, large outdoor special events could include weddings, exhibits, social gatherings, fundraisers, concerts, music festivals, and art exhibits, which would be attended by large numbers of people and would include live or recorded music. Although noise from these special events would be regulated by the City's Noise Ordinance, noise from outdoor events and activities could exceed relevant noise standards (**Impact-NOI-3**). These noise levels could also foreseeably increase ambient noise levels by more than 5 decibels, especially when they occur during the quieter evening hours (**Impact-NOI-5**).

Furthermore, as discussed in Section 4.12, *Transportation, Circulation, and Parking*, operation of the proposed project would worsen the existing delay at three intersections and increase the volume to capacity ratio at one freeway segment in exceedance of the City's thresholds. Operation of the

proposed project would also result in an insufficient supply of parking. These impacts would be significant (**Impact-TRA-3**, **Impact-TRA-4**, and **Impact-TRA-7**).

Overall, operation of the public plaza and park areas is not anticipated to directly result in significant transportation, circulation, or parking impacts. However, as a component of the proposed project, operation of the public plaza and park areas would contribute to **Impact-TRA-3**, **Impact-TRA-4**, and **Impact-TRA-7**. In addition, because the designated vista areas on the SDCC rooftop would be obstructed and displaced by the proposed public plaza and park areas, this component of the proposed project would directly contribute to **Impact-AES-2** and **Impact-AES-3**, respectively. Furthermore, operation of the public plaza and park areas would contribute to **Impact-NOI-3** and **Impact-NOI-5** as a result of noise generated by large outdoor special events (**Impact-PS-2**).

The offsite utility improvements and construction staging/parking would revert to their existing conditions once construction is complete. Therefore, there are no operational aspects of these components of the proposed project. As such, no impacts are identified with the offsite improvements and staging/parking.

Public Recreation

Consistent with park/plaza areas at the Marriott Marquis San Diego Marina and Hotel and the SDCC leaseholds, the project's proposed 39,860-square-foot (0.91-acre) public park plaza (identified as Area B in Table 3-2 in Chapter 3, *Project Description*, of the project's rooftop public plaza and park areas) would be open to the public 85% of the time and be reserved for private events 15% of the time. The 9,690-square-foot (0.22-acre) public observation terrace and public promenade (identified as Areas C and D in Table 3-2) would be open to the public at all times, consistent with the existing Embarcadero Promenade and similar facilities in the area. The remainder of the area is a multifunctional plaza and lawn, which would be open to the public 50% of the time, which is when hotel events would not occur. Given the reduced amount of time that public access would be available at these latter areas, a significant impact would occur if the hotel programming limited public access for long periods of time, resulting in the perception that the entire 1.74-acre rooftop public plaza and park area is not open to the public while private events are in session. Additionally, because the rooftop public plaza and park area and public observation terrace are raised from ground level, the public may not readily know that these recreational areas are available for public use. As such, without wayfinding signage to indicate their existence and availability to the general public, a significant impact related to public awareness of park space would occur (**Impact-PS-3**).

Public Access to Waterfront

The proposed project would include the existing 35-foot-wide Embarcadero Promenade across the site, as well as an approximately 10-foot walkway that would wrap around the hotel and connect to the Embarcadero Promenade. This project feature would maintain access to the waterfront of the Bay, thereby preventing a significant impact on public access to the waterfront.

Existing water-dependent recreational opportunities, which include boating, would not be adversely affected by the project. Instead, the project's proposed enhancements and expansion of the marina would potentially improve accessibility to marina slips. However, the marina would not offer lower-cost or no-cost public slips. Consequently, a significant impact related to public access to the water may occur (**Impact-PS-4**). For a specific discussion on consistency with the goals and policies of the CCA, see Table 4.9-3 in Section 4.9, *Land Use and Planning*.

Level of Significance Prior to Mitigation

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. Potentially significant impact(s) include the following.

Impact-PS-1: Construction of the Rooftop Public Plaza and Park Areas Would Contribute to Significant Impacts Related to Impact-AES-1, Impact-AES-4, Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, Impact-HAZ-1, Impact-HAZ-3, Impact-NOI-1, Impact-NOI-6, Impact-TRA-1, Impact-TRA-2, and Impact-TRA-6. As analyzed in Sections 4.1, *Aesthetics and Visual Resources*; 4.4, *Cultural Resources*; 4.5, *Geology and Soils*; 4.7, *Hazards and Hazardous Materials*; 4.10, *Noise and Vibration*; and 4.12, *Transportation, Circulation, and Parking*, the proposed project would result in significant impacts as identified by **Impact-AES-1, Impact-AES-4, Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, Impact-HAZ-1, Impact-HAZ-3, Impact-NOI-1, Impact-NOI-6, Impact-TRA-1, Impact-TRA-2, and Impact-TRA-6.** Construction of the public plaza and park areas would be a component of the proposed project that would contribute to these significant impacts. As such, the impacts from the construction of the public plaza and park areas would be considered significant.

Impact-PS-2: Operation of the Rooftop Public Plaza and Park Areas Would Contribute to Significant Impacts Related to Impact-AES-2, Impact-AES-3, Impact-NOI-3, Impact-NOI-5, Impact-TRA-3, Impact-TRA-4, and Impact-TRA-7. As analyzed in Sections 4.1, *Aesthetics and Visual Resources*; 4.10, *Noise and Vibration*; and 4.12, *Transportation, Circulation, and Parking*, the proposed project would result in significant impacts as identified by **Impact-AES-2, Impact-AES-3, Impact-NOI-3, Impact-NOI-5, Impact-TRA-3, Impact-TRA-4, and Impact-TRA-7.** Operation of the public plaza and park areas would be a component of the proposed project that would contribute to these significant impacts. As such, the impacts from the operation of the public plaza and park areas would be considered significant.

Impact-PS-3: Potential for Insufficient Wayfinding and Accessibility Signage to Inform Public that Public Plaza and Park Areas Are Available for Public Use and Enjoyment. Limited public access for long periods of time due to hotel programming could result in the perception that the entire 1.96-acre public plaza and park area is not open to the public while private events are in session. Additionally, because the rooftop public plaza and park area and terraces are raised from ground level, the public may not readily know that these recreational areas are available for public use. As such, without sufficient wayfinding signage, the general public may be unaware of their existence and availability. These impacts would be considered significant.

Impact-PS-4: Limited Public Access to the Marina. The marina expansion component of the proposed project would not offer lower-cost slips or no-cost public slips. Consequently, a significant impact related to public accessibility of the proposed marina may occur.

Mitigation Measures

For **Impact-PS-1:**

MM-AES-1: Construction Screening and Fencing. The project proponent shall install construction-screening fencing around the entire perimeter of the project site that would shield construction activities from sight and prior to issuance of demolition permits, the District's Development Services Department shall confirm such fencing is depicted on the appropriate demolition and construction plans. Construction screening shall include, at a minimum, installation of 8-foot-tall fencing for the duration of the construction period that is covered with view-blocking materials, such as tarp or mesh in a color that blends in with the existing environment such as green or blue.

MM-AES-5: Down-shield All Construction Security Lighting. The project proponent shall ensure that all overnight construction security lighting used at the project site is down-shielded to prevent any light spillover off site consistent with City of San Diego regulations on glare and outdoor lighting (Municipal Code Sections 142.0730 and 142.0740).

MM-CUL-1: Archaeological Monitoring in Areas of Sensitivity. The project proponent shall retain a qualified archaeologist(s) who meets the Secretary of the Interior's Professional Qualifications Standards, as promulgated in 36 Code of Federal Regulations 61. The qualified archaeologist shall monitor all proposed grading and excavating for the proposed project in the archaeologically sensitive portion of the project site. The sensitive portion of the project site, where it is possible that cultural materials associated with CA-SDI-15118H exist, consists of the northeastern section currently occupied by the paved parking lot along Convention Way (Figure 4.4-4 of the Draft EIR). The following measures shall only apply to the archaeologically sensitive portion of the project site during earthwork activities, including, but not limited to, grading and excavation.

- The qualified archaeologist shall participate in a preconstruction meeting to inform all personnel of the potential for historical archaeological materials to be encountered during ground-disturbing activities.
- If an isolated artifact or historic period deposit is discovered that requires salvaging, the qualified archaeologist shall have the authority to temporarily halt construction activities within 100 feet of the find and shall be given sufficient time to recover the item(s) and map its location with a global positioning system (GPS) device.
- If buried cultural materials are discovered that require salvaging, the qualified archaeologist shall be empowered to divert construction activities away from the find, and be given sufficient time to recover the item(s) and map its location with a GPS device.
- The qualified archaeologist shall treat recovered items in accordance with current professional standards by properly provenancing, cleaning, analyzing, researching, reporting, and curating them in a collection facility meeting the Secretary of the Interior's Standards, as promulgated in 36 CFR 79, such as the San Diego Archaeological Center.
- Within 60 days after completion of the ground-disturbing activity, the qualified archaeologist shall prepare and submit a final report to the District's Development Services Department for review and approval, which shall discuss the monitoring program and its

results, and provide interpretations about the recovered materials, noting to the extent feasible each item's class, material, function, and origin.

MM-CUL-2: Paleontological Monitoring in Areas of Sensitivity. To reduce potential impacts on paleontological resources, all proposed grading and excavating to depths greater than 10 feet shall be monitored by a qualified paleontologist(s), approved by the District's Development Services Department and paid for by the project proponent. Specifically, the project proponent and/or its construction supervisor shall ensure the following measures are implemented.

- A qualified Paleontologist shall attend the preconstruction meeting 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 a 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 mitigation project supervisor in the County for at least 1 year.
- A paleontological monitor shall be on site on a full-time basis during excavation and pile-driving activities that occur 10 feet or more below ground surface, 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 selected by the qualified Paleontologist who has experience in the collection and salvage of fossil materials.
- If fossils are discovered, the Paleontologist shall recover them and temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner.
- Fossil remains collected during the monitoring and salvage portion of the mitigation 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 shall be accompanied by financial support for initial specimen storage, paid for by the project proponent.
- Within 30 days after the completion of an excavation and pile-driving activities, a final data recovery report shall be completed by the qualified Paleontologist that outlines the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.

MM-GEO-1: Demonstrate Compliance with Regulations, including CBC and City of San Diego Municipal Code, by Preparing a Geotechnical Investigation Report. To reduce potential impacts related to soil hazards, the project proponent shall conduct a geotechnical investigation for the project prior to the completion of the final design of the project. The geotechnical investigation shall be submitted to the District and the City of San Diego and be approved by the City of San Diego. The project proponent shall be required to implement the recommendations identified in the geotechnical report. The geotechnical report shall be prepared in compliance with CBC regulations and include the following:

- Site-specific geotechnical and fault evaluation.

- Suitability determination for construction within soil hazard areas.
- Recommendations for design and construction practices based on the suitability determination, such as:
 - Temporary shoring
 - Supporting structures on pile foundations
 - Measures to protect structures against corrosion
 - Ground improvement techniques, such as deep soil mixing and compaction grouting

MM-HAZ-1: Prepare and Implement a Soil and Groundwater Management Plan. Prior to the District's approval of the project's landside working drawings, 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 Development Services Department for review and approval. After the District's review and approval, the project proponent shall implement the Soil and Groundwater Management Plan. The Soil and Groundwater Management Plan shall include the following:

- *A Landside Site Contamination Characterization Report* (Landside Characterization Report) delineating, throughout the landside project construction area, the vertical and lateral extent and concentration of landside residual contamination from the site's past use including, but not limited to, past use of the site as a fuel facility, municipal burn dump, and manufactured gas plant waste disposal area. The Landside Characterization Report shall include 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 landside residual contamination. The project applicant also shall enroll in the Voluntary Assistance Program with the County of San Diego Department of Environmental Health and shall submit the results of the Landside Characterization Report to Department of Environmental Health staff for regulatory concurrence of results.
- *A Soil and Groundwater Testing and Profiling Plan* (Testing and Profiling Plan) for those materials that will be disposed of during construction. Testing shall occur for all potential contaminants of concern, including CA Title 22 metals, PAHs, volatile organic compounds, pesticides, PCBs, semi-volatile organic compounds, hydrocarbons, or any other potential contaminants. 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 Soil and Groundwater Sediment Testing and Profiling Plan.
- *A Soil and Groundwater Disposal Plan* (Disposal Plan), which shall describe the process for excavation, stockpiling, dewatering, treating, and loading and hauling of soil and groundwater 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, CAC Title 27), and current industry best practices for the prevention of cross contamination, spills, or

releases, such as 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 Landside Characterization Report and the planned site construction activity to ensure that site workers potentially exposed to site contamination in soil and groundwater 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 Submit a Monitoring and Reporting Program. During and upon completion of landside construction, the project proponent shall prepare a Monitoring and Reporting Program and submit it to the District's Development Services Department for review and approval. The Monitoring and Reporting Program shall document implementation of the Soil and Groundwater 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 the project proponent's submittal of 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, signed and certified by the licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer, as applicable, documenting compliance with the provisions of these and plans and the overall Soil and Groundwater Management Plan.

MM-HAZ-3: Prepare and Submit a Project Closeout Report. Within 30 days of completion of landside construction, the project proponent shall prepare a Project Closeout Report and submit it to the District's Development Services Department for review and approval. The Project Closeout Report shall summarize all environmental activity at the site and document implementation of the Soil and Groundwater Management Plan, as required by **MM-HAZ-1**, and the Monitoring and Reporting Program, as required by **MM-HAZ-2**.

MM-HAZ-4: Develop and Implement a Site-Specific Community Health and Safety Program. Prior to the District's approval of the project's landside working drawings, the project proponent shall develop a site-specific Community Health and Safety Program (Program) that addresses the chemical constituents of concern for the project site. The guidelines of the Program shall be in accordance with the County of San Diego Department of Environmental Health's *Site Assessment and Mitigation Manual* (2009) and EPA's *SW-846 Manual* (1986). The Program shall include detailed plans on environmental and personal air monitoring, dust control, and other appropriate construction means and methods to minimize the public's exposure to the chemical constituents of concern. The Program shall be reviewed, approved, and monitored for compliance by the District. After the District's approval, the project proponent shall implement the Program. The contractor shall utilize a Certified Industrial Hygienist with significant experience with chemicals of concern on the project site to actively monitor compliance with the Program and ensure its proper implementation during project construction activities.

MM-HAZ-8: Obtain ALUC and FAA Formal Review and Determination. Prior to initiation of project construction, the project proponent shall obtain FAA approval and ALUC review and determination for construction equipment and operational structures.

MM-NOI-1: Avoid or Reduce Construction Noise from Impact-Type Pile Driving During Both Landside and Marina Construction. The project proponent and its construction contractor shall prohibit all pile driving activities outside the hours of 7:00 a.m. to 7:00 p.m. on Monday through Saturday. No associated activity shall occur at any time on Sundays or legal holidays. Construction personnel shall not be permitted on the project site (including laydown and storage areas), and material or equipment deliveries and collections shall not be permitted during the prohibited hours. In addition, impact pile driving shall be avoided by using alternative, quieter installation methods such as press-in piles or drilled pile techniques (e.g., cast-in-drilled-hole, poured-in-place). If the project proponent and its construction contractor determine that alternative pile installation methods are infeasible at some or all areas of the project site and that such areas require impact pile driving, then an acoustical shroud shall be utilized, as described below. Alternative pile installation methods shall only be considered infeasible if the project proponent and its construction contractor provide sufficient evidence, to the satisfaction of District Development Services Department, that such methods are infeasible based on technical, structural, geological, safety, and/or cost considerations.

Wherever impact pile driving is required for landside or waterside construction, it shall be conducted only with the use of an acoustical shroud to reduce noise levels. The shroud shall enclose the pile and hammer on all sides and shall extend from the water or ground surface to a point at least 5 feet above the top of the pile to be driven. The acoustical shroud, held in place by a crane, shall surround the pile driving assembly during pile driving activities, and shall be constructed as follows.

- a. A metal framework (cylindrical or square/rectangular) shall be constructed for the shroud to support the weight of the attached acoustical blankets. The framework shall be centered on the pile to be driven.
- b. Acoustical blankets shall be firmly secured to the outside of the framework with the sound-absorptive side of the blankets oriented toward the interior of the shroud (i.e., toward the pile). The blankets shall be overlapped by at least 6 inches at seams and taped to eliminate gaps. The largest blankets available shall be used to form the shroud in order to minimize the number of seams. The blankets shall be draped to the water or ground surface to eliminate any gaps at the base of the shroud.
- c. The number and size of gaps needed for the safe operation of the pile driver shall be kept to a minimum.
- d. The acoustical blankets shall provide a minimum sound transmission class of 28 and a minimum noise reduction coefficient of 1.00.
- e. The acoustical blankets shall be waterproof, oil- and UV-resistant, anti-fungal, and flame retardant.
- f. If necessary, a view window may be incorporated into the acoustical blankets in order to facilitate the operation of the pile driver. The window shall be constructed of clear vinyl material that weighs at least 1 pound per square foot. The seams where the window

attaches to the acoustical blankets shall be tightly sealed to eliminate gaps. The size of the window shall be kept to the minimum required for safe operation of the pile driver. At all times the window shall be oriented away from the nearby parks (Embarcadero Marina Park North and South, and Fifth Avenue Landing Park).

MM-NOI-2: Notify Users of Nearby Recreational Areas. If impact-type pile driving construction techniques cannot be avoided, the project proponent or its construction contractor shall post public noticing not less than 48 hours prior to initiating landside or waterside pile driving activities within 700 feet of a public recreational area (e.g., Embarcadero Marina Park South and Fifth Avenue Landing Park). The project proponent shall include this measure in the construction specification documents for the proposed project. Prior to issuance of the construction specification documents for bid, the project proponent shall submit a copy of the construction specification documents and the proposed public notice sign to the District's Development Services Department for approval. Prior to the commencement of impact-type pile driving activities, the project proponent shall submit documentation (including photographs) to the District's Development Services Department demonstrating compliance with this measure.

MM-NOI-3: Reduce Construction Noise from Other (Non-Pile Driving) Activities. During all construction activity, the project proponent and its construction contractor shall implement the following techniques and best practices to reduce noise levels from non-pile driving construction activities.

- a. Prohibit all construction activities outside the hours of 7:00 a.m. to 7:00 p.m. on Monday through Saturday. No construction activity shall occur at any time on Sundays or legal holidays. Construction personnel shall not be permitted on the project site (including laydown and storage areas), and material or equipment deliveries and collections shall not be permitted during the prohibited hours.
- b. Ensure that all construction equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency complies with such regulation while in the course of project activity and use on site.
- c. Properly maintain all construction equipment used during project construction and remove any equipment from service, until it is properly repaired, that generates increased noise levels because of any defect or damage.
- d. Equip all construction equipment, where applicable, with properly operating and maintained mufflers, air-inlet silencers, and any other shrouds, shields, or other noise-reducing features that meet or exceed original factory specifications.
- e. Operate construction equipment only when necessary, and switch off powered equipment when not in use. Prohibit the idling of inactive construction equipment for more than 2 minutes.
- f. Restrict the use of noise-producing signals, including horns, whistles, alarms, and bells, for safety warning purposes only.
- g. Install temporary noise barriers around the project site during the demolition, site preparation (including dewatering and shoring), excavation, and foundation phases of construction, to the extent practicable. For periods (if any) when these construction activities are restricted to a smaller portion of the whole site, barriers may be installed around that smaller portion of the site. Alternatively, if a site perimeter barrier cannot be

constructed, a localized barrier shall be installed around any noisy stationary construction equipment such as generators or dewatering pumps. For barriers to be effective, they should break the line of sight between the construction equipment and any noise-sensitive receiver. These barriers may be constructed as follows:

- 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 and lined with sound-absorptive material (the sound-absorptive material should face the construction equipment).
 - From acoustical blankets hung over or from a supporting frame. The blankets should provide a minimum sound transmission class rating of 28 and a minimum noise reduction coefficient of 0.80 and should be firmly secured to the framework with the sound-absorptive side of the blankets oriented toward the construction equipment. The blankets should be overlapped by at least 6 inches at seams and taped so that no gaps exist. The largest blankets available should be used in order to minimize the number of seams. The blankets shall be draped to the ground to eliminate any gaps at the base of the barrier.
- h. Train all construction employees in the proper operation and use of the equipment they use during the course of their work.

MM-TRA-1: Transportation Demand Management Plan. Prior to commencing any construction or demolition activities, the project proponent shall provide a Transportation Demand Management (TDM) Plan to the San Diego Unified Port District and City of San Diego for approval that shall limit the number of construction worker trips that travel through the affected intersections during peak periods to 50 trips. The TDM plan shall incorporate TDM strategies to be implemented during construction, including, but not limited to:

- Implementation of a ride-sharing program to encourage carpooling among the workers.
- Adjustment of work schedules (e.g., arrive before 7 a.m. or after 9 a.m.; leave before 4 p.m. or after 6 p.m.) so that workers do not access the site during peak hours.
- Provision of offsite parking locations for workers outside of the area with shuttle services to bring them on site, as identified in **MM-TRA-7**.
- Provision of subsidized transit passes for construction workers.

MM-TRA-7: Provide Offsite Parking and Shuttle Transportation and Require Incentives for Transit Use and Wayfinding Signage for Visitors. Prior to the commencement of any construction activity, the project proponent shall provide an offsite parking location at the R.E. Staite property at 2145 East Belt Street, San Diego, CA for construction workers and shall provide shuttle service from the offsite parking location to the project site and back. 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, the project proponent shall provide conspicuous on-street signage to direct waterfront visitors to available parking facilities throughout the duration of the construction period.

For Impact-PS-2:

MM-AES-2: Install Wayfinding and Public Accessibility Signage. Prior to the issuance of occupancy permits, the project proponent shall post wayfinding signage and signage at the grand staircase, market-rate hotel tower staircase, public observation terrace, optional pedestrian bridge, and two locations along the existing Embarcadero Promenade, that directs visitors to the proposed public plaza and park areas on the rooftop of the parking structure and hotel ballrooms as well as the walkway around the market-rate hotel tower (the areas identified as Exterior Areas B, C, and D on Figure 3-12 in Chapter 3, *Project Description*, of the EIR), and designates the areas as available to the public with open hours listed (i.e., 6:00 a.m. to 10:30 p.m.). The project proponent shall submit the signage characteristics (e.g., size, color, materials) to the District's Development Services Department for review and approval. Photographic proof of the wayfinding signage and designation signage shall be submitted to the District's Development Services Department prior to issuance of the certificate of occupancy. In addition, the project proponent shall allow the District to conduct periodic inspections to ensure that this space remains publicly accessible. The wayfinding signage shall clearly direct the public to the public plaza and park areas and public observation terrace and indicate that the space is open to the public except during certain circumstances consistent with the PMPA.

MM-AES-3: Transparent Fencing Materials at Pool Deck. Prior to the issuance of the certification of occupancy for the market-rate hotel tower, the project proponent shall install transparent fencing in front of the pool to separate the pool deck from the public observation terrace viewing point on the second floor of the west side of the market-rate hotel tower, using transparent materials such as glass or cable rail. Prior to issuance of a building permit for the market-rate hotel tower, the District's Development Services Department shall confirm such transparent fencing is depicted on the appropriate building plans.

MM-AES-4: Designated Public Vista Areas. To replace the five public vista areas currently designated on the project site and/or the SDCC Expansion Rooftop park, the PMP Amendment shall include five new public vista points as shown on Figure 3-19; four shall be located along the public observation terrace on the rooftop public plaza and park areas and the fifth shall be located on the west end of the market-rate hotel tower terrace (public observation terrace viewing point, Figure 3-12). These designated vista points shall be delineated with signage and open to the public at all times.

MM-NOI-5: Incorporate Operational/Contract Specifications to Minimize Exterior Special Event Noise. The project proponent and any future owner/operator of the proposed project shall observe the following requirements and/or incorporate them into the contract specifications for outdoor events:

1. Any exterior special event associated with the proposed project shall not exceed 65 dBA L_{eq} at the proposed project's property line between the hours of 7:00 a.m. and 7:00 p.m. as mandated by the City of San Diego Municipal Code 59.5.0401. Any concert associated with the proposed project shall not exceed 60 dBA L_{eq} at the project's property line between the hours of 7:00 p.m. and 7:00 a.m. as mandated by the City of San Diego Municipal Code 59.5.0401.
2. Any event that fails to comply with requirement 1, above, shall only be permitted if an applicable event permit, or variance or exemption from the code, has been sought and granted by the appropriate agency (City or District).

3. The project shall comply with all City and District requirements related to hosting outdoor events.

MM-TRA-2: Signalization of the 15th Street/F Street Intersection. Prior to issuance of occupancy permits, the project proponent shall pay for or directly install a traffic signal at the intersection of 15th Street and F Street. Installation of the traffic signal will require approval from the City of San Diego. After installation is complete, the project proponent shall provide proof of signalization to the District for verification before issuance of the occupancy permits may occur.

MM-TRA-3: Signalization of the 17th Street/G Street Intersection. Prior to issuance of occupancy permits, the project proponent shall pay for or directly install a traffic signal at the intersection of 17th Street and G Street. Installation of the traffic signal will require approval from the City of San Diego. After the required payment or installation is complete, the project proponent shall provide proof of completion to the District for verification before issuance of the occupancy permits may occur.

MM-TRA-4: Restriping of Northbound Left-Turn Lane at 19th Street/J Street Intersection. Prior to the issuance of occupancy permits, the project proponent shall pay for or directly implement restriping the northbound left-turn lane into a northbound left-turn and through-share lane at the intersection of 19th Street and J Street. Restriping lanes will require approval from the City of San Diego. The project proponent shall provide proof of payment or completion to the District for verification before issuance of the occupancy permits may occur.

MM-TRA-5: Compliance with San Diego Forward: The Regional Plan, I-5 Operational Improvements. Prior to the issuance of occupancy permits, Caltrans shall install the following I-5 operational improvements for the segment of northbound I-5 between Grape Street and First Avenue, in compliance with *San Diego Forward: The Regional Plan* prepared by SANDAG (SANDAG 2015).

MM-TRA-8: Implement a Parking Management Plan that Provides Parking Management Strategies. Prior to the issuance of the certificate of occupancy for market-rate hotel operations, the project proponent shall submit a Parking Management Plan to the District for approval. Upon approval and during project operations, the project proponent shall provide a quarterly report on the Parking Management Plan to the District's Development Services Department, which shall be subject to verification by District staff. The project proponent shall implement the following parking management strategies and any other strategies identified in the Parking Management Plan to mitigate the projected parking deficiency:

- *Valet Parking* – Secure 209 parking spaces (Secured Parking) at one or more offsite parking lots and provide a valet service that allows guests to utilize the secured spots, in order to avoid overflow in the immediate surrounding parking areas. Prior to commencement of hotel operations, the project proponent will enter into a contract or agreement with a parking operator or equivalent entity securing the Secured Parking and provide the agreement to the District's Development Services Department. The agreement shall be updated and submitted to the District's Development Services Department on an annual basis to provide proof of maintaining said agreement.

Until a long-term parking solution is identified for the area, after project construction is complete, on January 15 of each year the project proponent shall submit an annual parking

implementation report to the District's Development Services Department for its review, which shall include the following components:

- A specific peak parking implementation program, broken down into morning, afternoon, and evening timeframes, in its annual submittal.
- Evidence in the form of parking utilization counts that show that sufficient valet spaces are available to meet the project's overflow parking demand from the parking lot or valet vendor. The parking counts shall be conducted at times throughout the day on both weekdays and weekends, during both the summer and winter, and shall be compared to projected and actual valet use at the project site.
- The location of the lots available for valet use and the number of spaces available in each lot based upon recent parking utilization counts.
- The dates, times, and duration of any period the valet was closed due to no available parking spaces.

In the event that the District establishes a long-term parking program for the area, the project proponent shall contribute a fair share to the analysis, design, and construction and operating costs associated with the program.

- *Transportation Network Companies* – The project proponent shall coordinate with transportation companies (such as Lyft and Uber) and shall provide designated pick-up/drop-off locations to encourage hotel patrons to utilize this mode of transportation as an alternative to driving their personal vehicles.
- *Water Taxi* – The project proponent shall provide a direct path and wayfinding signage from the Water Taxi Landing to the hotel facilities, and provide brochures and other materials in the hotel lobbies to inform hotel guests of the water taxi service and the destinations that can be reached.
- *Bike Racks* – The project proponent shall provide bike racks to accommodate a minimum of 24 bicycle parking spaces on the project site or adjacent thereto on the Embarcadero Promenade to encourage employees/patrons to bike to the proposed project.
- *Bike Share Stations* – The project proponent shall coordinate with companies like DECOBIKE to ensure a bike share station is maintained within walking distance (approximately 1,000 feet) to the proposed project. If a third-party bikeshare service cannot be provided, the project proponent shall provide bikes for its guests to rent.
- *Public Transit* – On its website, the project proponent shall promote and encourage employees and patrons to utilize alternative modes of transportation as an alternative to driving their personal vehicles.
- *Public Transit Subsidies for Employees* – The project proponent shall provide reimbursement or subsidies for public transportation costs for all employees. The level of transit reimbursements and subsidies shall be based on the standards set forth by the California Air Pollution Control Officers Association resource document *Quantifying Greenhouse Gas Mitigation Measures* (August 2010) to achieve a reduction in project vehicle miles traveled by 20%.
- *Port of San Diego (formerly Big Bay) Shuttle* – The project proponent shall participate in the Port of San Diego Shuttle system as a condition precedent to issuance of a certificate of

occupancy for the market-rate hotel or lower-cost visitor-serving hotel, whichever hotel is completed first. Participation may include: collection of fares, advertising, voluntary tenant participation, mandatory tenant participation at the time of issuance of coastal development permits for District tenant projects within the South Embarcadero, and other forms of participation as identified by the District.

- *Airport Shuttle* – The project proponent shall provide a shuttle to and from the airport for hotel guests.

For Impact-PS-3:

MM-PS-1: Operation Requirements for the Multifunctional Plaza and Lawn, Public Park Plaza, and Public Park Plaza and Public Observation Terrace Areas. Under no circumstances shall the closure of the public plaza and park areas for private hotel events be more than the following percentages.

- Multifunctional Plaza and Lawn (35,940 square feet): 50% private access (50% public access). This area would be available for private events 50% of the year, which is defined as the equivalent of 182.5 days per year, inclusive of event setup and breakdown time. When not in use for private events, this area would be accessible for use by the public at no cost 50% of the year (182.5 days). For clarification purposes, if a private event occupies the Multifunctional Plaza and Lawn for part of a day, it shall count as occupying the Multifunctional Plaza and Lawn for an entire day when calculating the 182.5-day private event limit.
- Public Park Plaza (39,860 square feet): 15% private access (85% public access). This area would be available for private events 15% of the year, which is defined as the equivalent of 55 days per year, inclusive of event setup and breakdown time. When not in use for private events, this area would be accessible for use by the public at no cost 85% of the year (310 days). For clarification purposes, if a private event occupies the Public Park Plaza for part of a day, it shall count as occupying the Public Park Plaza for an entire day when calculating the 55-day private event limit.
- Public Park Plaza and Public Observation Terrace (6,500 square feet): 0% private access (100% public access). This area would be not be available for private events, and would be open to the public at no cost 100% of the year.

If the private event area is blocked off from the public usable area, such barriers shall not be solid materials but shall be a material like ropes. To ensure the private event area is restored for the public use, all trash and debris shall be immediately picked up and disposed of appropriately during and after the private event.

During times when the Multifunctional Plaza and Lawn area or Public Park Plaza area is open to the public (i.e., during non-private event times), the hours of operation shall be the same as the District's park hours of operation.

During all private events, clear signage shall be placed in publicly visible locations (i.e., not posted inside the hotel) at the grand staircase, market-rate hotel tower staircase, public observation terrace, optional pedestrian bridge (if developed), and two locations along the existing Embarcadero Promenade, that indicate the Multifunctional Plaza and Lawn area and/or

the Public Park Plaza areas, if applicable, are open to the public. Clear signage shall be placed at the Public Park Plaza and Public Observation Terrace that indicates it is open to the public.

After project construction is complete, on January 31 of each year, the project proponent shall submit an annual public access usage report to the District's Development Services Department that demonstrates, for the preceding year, that the Multifunctional Plaza and Lawn, Public Park Plaza, and Public Park Plaza and Public Observation Terrace are being used for public access and private access (for private events) as follows and consistent with this **MM-PS-1**:

- Multifunctional Plaza and Lawn (50% public access/50% private access)
- Public Park Plaza (85% public access/15% private access)
- Public Park Plaza and Public Observation Terrace (100% public access)

The report shall be broken down by the Multifunctional Plaza and Lawn and Public Park Plaza areas and shall list the date, private event, start and end times, duration of each event, setup and breakdown time, and total number of days and percentage of private use for that year.

Furthermore, the report shall contain confirmation, such as photographs or a signature by the hotel manager, that for each private event, signage indicating public use of the remaining area (if applicable) was placed consistent with this **MM-PS-1**. For the Public Park Plaza and Public Observation Terrace area, the report shall confirm that this area was accessible to the public 100% of the year and contained signage indicating such.

Implement **MM-AES-2: Install Wayfinding and Public Accessibility Signage**, as described above.

For **Impact-PS-4**:

MM-PS-2: Low-Cost or No-Cost Boat Slip. The project proponent shall provide at least one boat slip for a vessel of a maximum size of 30 feet at low cost or no cost for public use. To ensure sufficient availability to the public, berthing at the low-cost or no-cost slip shall be a maximum of 6 hours. Signage shall be provided and availability of the low-cost or no-cost slip shall be posted on the project proponent's website.

Level of Significance after Mitigation

The implementation of mitigation measures (**MM-AES-4**, **MM-AES-5**, **MM-CUL-1**, **MM-CUL-2**, **MM-GEO-1**, **MM-HAZ-1** through **MM-HAZ-4**, **MM-HAZ-8**, and **MM-NOI-5**) would reduce **Impact-PS-1** and **Impact-PS-2** as they relate to aesthetics (**Impact-AES-3** and **Impact-AES-4** only), cultural resources, geology and soils, hazards and hazardous materials, and noise (**Impact-NOI-3** only) to less-than-significant levels. However, even with the implementation of mitigation measures (**MM-AES-1** through **MM-AES-3**, **MM-NOI-1**, **MM-NOI-2**, **MM-NOI-3**, **MM-NOI-5**, **MM-TRA-1** through **MM-TRA-5**, **MM-TRA-7**, and **MM-TRA-8**), **Impact-PS-1** and **Impact-PS-2** as they relate to aesthetics, noise, and transportation, circulation, and parking would remain significant and unavoidable for the reasons described in Section 4.1, *Aesthetics and Visual Resources*; Section 4.10, *Noise and Vibration*; and Section 4.12, *Transportation, Circulation, and Parking*.

Implementation of mitigation measures **MM-PS-1** and **MM-AES-2** would reduce **Impact-PS-3** to a less-than-significant level because the public would be aware of the public plaza and park areas, know that they are open to the public, and know how to access them.

Implementation of mitigation measure **MM-PS-2** would reduce **Impact-PS-4** to a less-than-significant level because the public would have water access via a low-cost or no-cost slip within the proposed marina where currently no such slip exists.

Threshold 5: 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 project construction workers, hotel guests, retail visitors, and waterfront visitors to use existing recreational facilities to such an extent as to accelerate their physical deterioration.

The proposed project would increase the total area of public plaza and park areas from approximately 30,300 square feet (0.7 acre) to approximately 85,490 square feet (1.96 acres). Proposed public plaza and park areas include 82,300 square feet of plaza and park area (includes public observation terrace) on the roof of the market-rate hotel tower ballrooms, meeting rooms and a parking structure, 3,190 square feet of at-grade public promenade adjacent to the southeast corner of the market-rate hotel tower, and an observation terrace viewing point on the southwest corner of the second floor of the market-rate hotel tower.

Construction

Construction activities would bring an average daily workforce of up to 1,100 construction workers to the project site, with a daily average around 186 workers. Although it is reasonable to assume construction workers may take their lunch breaks in the Embarcadero Marina Park South because of its proximity to 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. 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. In addition, the existing 35-foot-wide Embarcadero Promenade would be temporarily affected during construction of the proposed project. During construction of the proposed project, the portion of the Embarcadero Promenade fronting the project site would remain open, but would be narrowed temporarily from 35 feet to 15 feet. However, the Embarcadero Promenade would be closed for approximately 18 months during construction of the market-rate hotel tower lobby, which spans the entire width of the promenade, and therefore would require pedestrian traffic to be re-routed. Once construction is complete the existing 35-foot Embarcadero Promenade would be maintained and available to the public. As such, construction 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 these facilities would occur or be accelerated.

In addition, the proposed project includes the construction of offsite utility improvements and the use of the R.E. Staite property (which includes an existing construction equipment staging lot) located approximately 2.2 miles from the project site for construction worker parking and

construction staging. However, these offsite improvements and staging areas are located within existing roadways or existing construction staging lots and would not result in impacts on parks.

Operation

The proposed project would not develop any residential uses and would not substantially increase the permanent local residential population through employment, as it is anticipated that existing San Diego residents would work at the proposed new hotels. The proposed project would result in increased visitors to the project site and surrounding areas. Project site users would consist mainly of temporary hotel guests, retail visitors, and waterfront recreational visitors. The proposed project would maintain public plaza and park areas for these temporary visitors.

Hotel guests, retail visitors, and waterfront visitors would be present on the project site during operation. These project site users would have low motivation and limited opportunities to utilize neighborhood parks within downtown San Diego. However, some users, particularly hotel guests on vacation, may visit larger regional recreational areas such as the Embarcadero Marina Park North and South, Seaport Village, North Embarcadero, and Balboa Park. These larger parks would be able to accommodate the relatively small addition of visitors from the proposed project, and the expected light use from these users would not lead to the substantial deterioration of existing parks.

Moreover, the proposed project would increase the total area of public plaza and park areas from approximately 30,300 square feet (0.7 acre) to approximately 85,490 square feet (1.96 acres), maintain existing access to the bayfront across the site, and implement a new walkway around the market-rate hotel tower to maintain public access to views along the San Diego Bay. These recreational components would further offset any potential demand on local neighborhood parks. As a result, although operation of the proposed project could increase the use of existing neighborhood and regional parks 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.

The offsite utility improvements and construction staging/parking would revert to their existing condition once construction is complete. Therefore, there are no operational aspects of these components of the proposed project. As such, no impacts are identified with the offsite improvements and staging/parking.

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 is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 6: 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 5, as a result of the proposed project, the total area of public plaza and park areas would be increased from approximately 30,300 square feet (0.7 acre) to approximately 85,490 square feet (1.96 acres). The proposed public plaza and park areas would be designed with a combination of hardscape, drought-tolerant landscape, grass lawns, and artificial turf. The proposed project marina expansion would allow for 50 additional slips to accommodate both small and large vessels. The proposed public terraces and promenades would include landscape and hardscape features and would serve as resting and viewing areas for visitors and include interpretive signage and public art, as described in Chapter 3, *Project Description*.

Construction

Potential impacts associated with construction of the proposed project, including the proposed public plaza and park areas and the offsite utility improvements and staging/parking, are analyzed throughout the applicable sections of this EIR. Especially relevant sections include Sections 4.1, *Aesthetics and Visual Resources*; 4.2, *Air Quality and Health Risk*; 4.4, *Cultural Resources*; 4.6, *Greenhouse Gas Emissions and Climate Change*; 4.7, *Hazards and Hazardous Materials*; 4.8, *Hydrology and Water Quality*; 4.10, *Noise and Vibration*; and 4.12, *Transportation, Circulation, and Parking*. As discussed under Threshold 4, as a component of the proposed project, construction of the proposed public plaza and park areas would potentially contribute to significant impacts on aesthetics, cultural resources, geology and soils, hazards and hazardous materials, noise, and transportation, circulation, and parking during construction and excavation activities (**Impact-PS-1**). However, construction of the proposed public park and plaza areas would not result in impacts related to air quality and health risk, greenhouse gas emissions and climate change, or hydrology and water quality.

Operation

Public access to the rooftop public plaza and park areas would be provided at ground level as described in Chapter 3, *Project Description*. As identified in Table 3-2, these public plaza and park areas would be open to the public most of the time; for the remaining periods, the plaza and park areas may be used for special events. As discussed under Threshold 4, operational impacts related to the proposed public plaza and park areas would include the obstruction and displacement of designated vista areas, increased noise levels during outdoor special events, and transportation, circulation, and parking impacts from the addition of visitor vehicular traffic on local streets and freeways and increased parking demand (**Impact-PS-2**).

The offsite utility improvements and construction staging/parking would revert to their existing conditions once construction is complete. Therefore, there are no operational aspects of these components of the proposed project. As such, no impacts are identified with the offsite improvements and staging/parking.

Level of Significance Prior to Mitigation

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. Potentially significant impacts include **Impact-PS-1** and **Impact-PS-2** as described under Threshold 4 above.

Mitigation Measures

For **Impact-PS-1**:

Implement **MM-AES-1**, **MM-AES-5**, **MM-CUL-1**, **MM-CUL-2**, **MM-GEO-1**, **MM-HAZ-1** through **MM-HAZ-4**, **MM-HAZ-8**, **MM-NOI-1**, **MM-NOI-2**, **MM-NOI-3**, **MM-TRA-1**, and **MM-TRA-7** as described above.

For **Impact-PS-2**:

Implement **MM-AES-2** through **MM-AES-4**, **MM-NOI-5**, **MM-TRA-2** through **MM-TRA-5**, and **MM-TRA-8** as described above.

Level of Significance after Mitigation

The implementation of mitigation measures (**MM-AES-4**, **MM-AES-5**, **MM-CUL-1**, **MM-CUL-2**, **MM-GEO-1**, **MM-HAZ-1** through **MM-HAZ-4**, **MM-HAZ-8**, and **MM-NOI-5**) would reduce **Impact-PS-1** and **Impact-PS-2** as they relate to aesthetics (**Impact-AES-3** and **Impact-AES-4** only), cultural resources, geology and soils, hazards and hazardous materials, and noise (**Impact-NOI-3** only) to less-than-significant levels. However, even with the implementation of mitigation measures (**MM-AES-1** through **MM-AES-3**, **MM-NOI-1**, **MM-NOI-2**, **MM-NOI-3**, **MM-NOI-5**, **MM-TRA-1** through **MM-TRA-5**, **MM-TRA-7**, and **MM-TRA-8**), **Impact-PS-1** and **Impact-PS-2** as they relate to aesthetics, noise, and transportation, circulation, and parking would remain significant and unavoidable for the reasons described in Section 4.1, *Aesthetics and Visual Resources*; Section 4.10, *Noise and Vibration*; and Section 4.12, *Transportation, Circulation, and Parking*.

Section 4.12

Transportation, Circulation, and Parking

4.12.1 Overview

This section describes the existing conditions and applicable laws and regulations for transportation, circulation, and parking, followed by an analysis of the proposed project's potential to (1) conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit; (2) conflict with an applicable congestion management program including, but not limited to, level of service (LOS) standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways; (3) result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks; (4) substantially increase hazards due to a design feature or incompatible uses; (5) result in inadequate emergency access; (6) conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities; or (7) result in an insufficient supply of parking to meet the project demand.

The information provided in this section is summarized from the *Fifth Avenue Landing Transportation Impact Analysis* (TIA) prepared by Chen Ryan Associates in February 2017 (Appendix K-1). Table 4.12-1 summarizes the significant impacts and mitigation measures discussed in Section 4.12.4.3, *Project Impacts and Mitigation*. Note that the conditions and analysis provided in this section are limited to existing conditions without and with the project. Near-term and long-term conditions, which include reasonably foreseeable cumulative projects, and the related analysis are provided in Chapter 5, *Cumulative Impacts*.

Table 4.12-1. Summary of Significant Transportation 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: Construction-Related Impacts along the 28 th Street Roadway Segment Between National Avenue and Boston Avenue Under Existing Plus Project Construction	MM-TRA-1: Transportation Demand Management Plan	Significant and unavoidable	The mitigation measure could help reduce the construction worker-generated traffic at study area roadway segments during construction activities; however, because the reduction in traffic cannot be quantified to demonstrate that the impact would be reduced to less-than-significant levels, this impact would

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
			remain significant and unavoidable.
Impact-TRA-2: Construction-Related Impacts on Study Area Intersections Under Existing Plus Project Construction: Sampson Street/Harbor Drive (AM and PM Peak Hours) and I-5 SB On-Ramp/Boston Avenue (PM Peak Hour)	MM-TRA-1: Transportation Demand Management Plan	Significant and unavoidable	The mitigation measure could help reduce the construction worker-generated traffic at study area intersections during construction activities; however, because the reduction in traffic cannot be quantified to demonstrate that the impact would be reduced to less-than-significant levels, this impact would remain significant and unavoidable.
Impact-TRA-3: Operation-Related Impacts on Study Area Intersections Under Existing Plus Project Conditions: 15 th Street/F Street (PM Peak Hour); 17 th Street/G Street (PM Peak Hour); 19 th Street/J Street (PM Peak Hour)	MM-TRA-2: Signalization of the 15 th Street/F Street Intersection MM-TRA-3: Signalization of the 17 th Street/G Street Intersection MM-TRA-4: Restriping of Northbound Left Turn Lane at 19 th Street/J Street Intersection	Significant and unavoidable	Although mitigation is required that could reduce the impact to a less-than-significant level, timing and the implementation of the recommended improvements are uncertain because they are outside the jurisdiction of the District.
Impact-TRA-4: Operation-Related Impacts Under Existing Plus Project Conditions: NB I-5 Between Grape Street and First Avenue (AM Peak Hour)	MM-TRA-5: Compliance with San Diego Forward: The Regional Plan, I-5 Operational Improvements	Significant and unavoidable	SANDAG's RTP includes a series of operational improvements along I-5, including the segment of northbound I-5 between Grape Street and First Avenue. However, these improvements are within the jurisdiction and control of Caltrans, not the District. Moreover, they are not scheduled until Year 2050 and there is no fair-share fund established at this time. Therefore, because there is no mechanism available for the project to pay its contribution for improvements and the improvements are outside the District's control, impacts along I-5 would

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
			remain significant and unavoidable.
Impact-TRA-5: Temporary Closure of Embarcadero Promenade During Construction	MM-TRA-6: Maintain Public Access Along Embarcadero Promenade During Construction	Less than significant	Maintaining public access along the Embarcadero Promenade during construction would ensure that the performance of this facility is not decreased.
Impact-TRA-6: Insufficient Parking Supply During Construction	MM-TRA-7: Provide Offsite Parking and Shuttle Transportation and Require Incentives for Transit Use and Wayfinding Signage for Visitors	Significant and unavoidable	Even after mitigation, existing parking at the project site would not be accessible throughout the construction phase.
Impact-TRA-7: Insufficient Parking Supply During Operation	MM-TRA-8: Implement a Parking Management Plan that Provides Parking Management Strategies	Significant and unavoidable	Mitigation cannot be quantified to provide evidence that it would be sufficient to reduce parking demand such that the proposed parking supply would be equal to or greater than demand.

4.12.2 Existing Conditions

4.12.2.1 Study Area

Transportation and circulation related to the proposed project would affect streets and intersections surrounding the project site. These streets and intersections are within the jurisdiction of the City of San Diego. As such, the study area was defined according to the City of San Diego's *Traffic Impact Study Manual* (July 1998) requirements. Generally, the *Traffic Impact Study Manual* requires that a study area include all roadway segments, intersections, and freeway segments where the project would contribute 50 or more peak hour trips in either direction except as noted below. Figure 4.12-1 shows the project study area roadway segments and intersections.

Two locally significant roadways, Harbor Drive and Pacific Highway, traverse the study area. For details of these facilities, please see Appendix K-1.

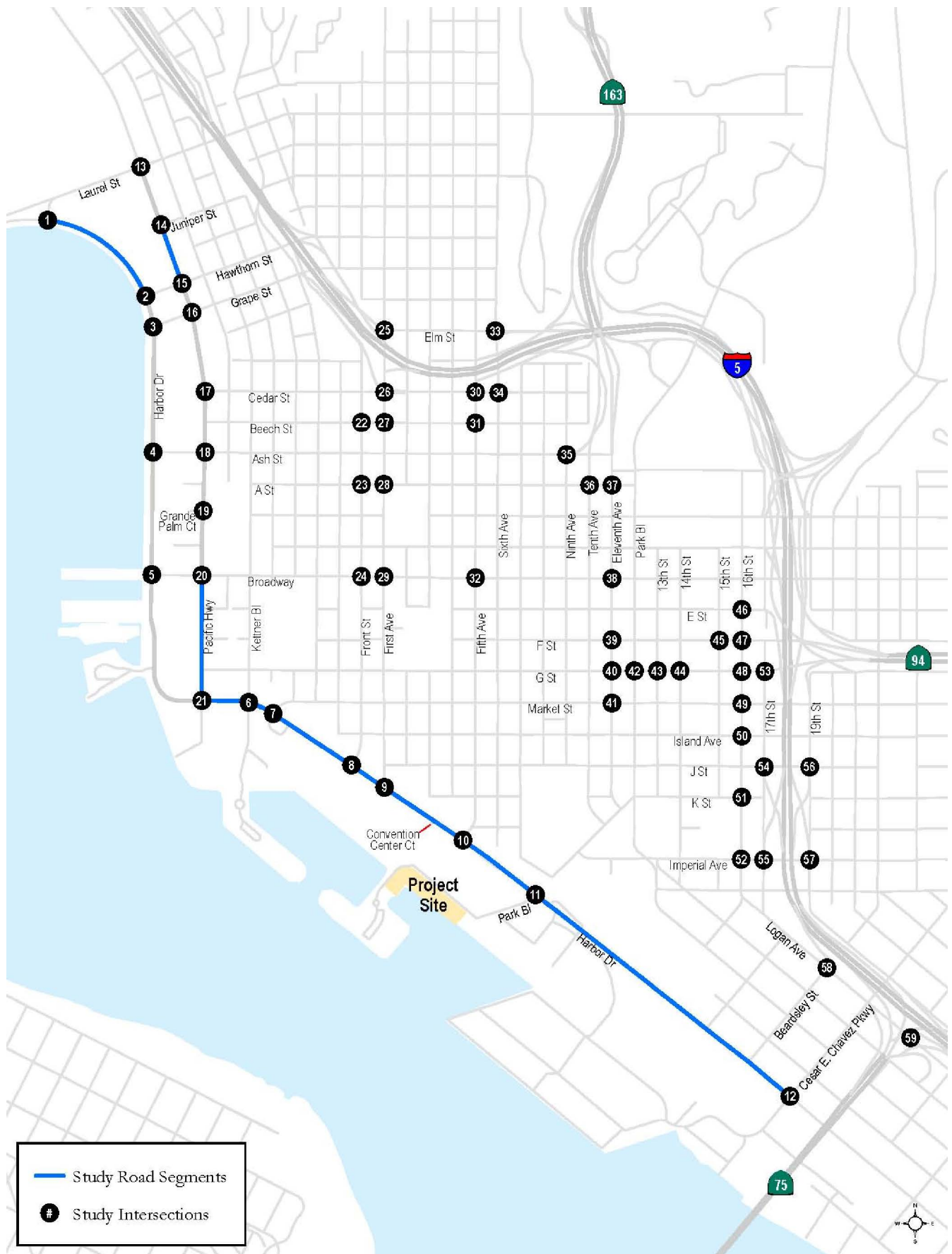


Figure 4.12-1
Traffic Study Area
Fifth Avenue Landing Project

Roadway Segments

Based on project trip assignment and input from District staff, the following 11 roadway segments would receive more than 50 peak hour trips from the project and, therefore, were identified for analysis in the TIA.

1. Harbor Drive between:
 - a. Laurel Street and Hawthorne Street
 - b. Pacific Highway and Kettner Boulevard
 - c. Kettner Boulevard & Market Street
 - d. Market Street and Front Street
 - e. Front Street and First Avenue
 - f. First Avenue and Convention Center Court
 - g. Convention Center Court and Fifth Avenue
 - h. Fifth Avenue and Park Boulevard
 - i. South of Park Boulevard
2. Pacific Highway between:
 - a. Juniper Street and Hawthorne Street
 - b. Broadway and Harbor Drive

Figure 4.12-1 shows the locations of each of these segments.

Intersections (Including Freeway Ramps)

Due to the tight density of intersections within downtown San Diego and the off-peak nature of trips generated by the proposed project, not all intersections to which the project would add 50 or more peak hour trips within the downtown area will require analysis, as per City of San Diego standards. Instead, the TIA focused on the following intersection types.

- Intersections identified as operating at LOS D, E, or F under Downtown San Diego Mobility Plan EIR buildout conditions
- Signalized intersections along Harbor Drive
- Freeway ramp intersections

Based on the project trip assignment, the following 59 key study area intersections were analyzed.

1: Harbor Drive & Laurel Street
 2: Harbor Drive & Hawthorn Street
 3: Harbor Drive & Grape Street
 4: Harbor Drive & Ash Street
 5: Harbor Drive & Broadway
 6: Harbor Drive & Kettner Boulevard
 7: Harbor Drive & Market Street
 8: Harbor Drive & Front Street
 9: First Street & Harbor Drive
 10: Harbor Drive & Fifth Avenue
 11: Park Boulevard & Harbor Drive
 12: Cesar Chavez Parkway & Harbor Drive
 13: Pacific Highway & Laurel Street
 14: Pacific Highway & Juniper Street
 15: Pacific Highway & Hawthorn Street
 16: Pacific Highway & Grape Street
 17: Pacific Highway & Cedar Street
 18: Pacific Highway & Ash Street
 19: Pacific Highway & Grand Palm Court
 21: Pacific Highway & Harbor Drive
 22: Front Street & Beech Street
 23: Front Street & A Street
 24: Front Street & Broadway
 25: First Street & Interstate (I-) 5 northbound
 (NB) on-ramp/Elm Street
 26: First Street & Cedar Street
 27: First Street & Beech Street
 28: First Street & A Street
 29: First Street & Broadway
 30: Fifth Avenue & Cedar Street

31: Fifth Avenue & Beech Street
 32: Fifth Avenue & Broadway
 33: Sixth Avenue & Elm Street/I-5 NB off-ramp
 34: Sixth Avenue & Cedar Street
 35: Ninth Street & Ash Street
 36: Tenth Avenue & A Street
 37: Eleventh Avenue & A Street
 38: Eleventh Avenue & Broadway
 39: Eleventh Avenue & F Street
 40: Eleventh Avenue & G Street
 41: Eleventh Avenue & Market Street
 42: Park Boulevard & G Street
 43: 13th Street & G Street
 44: 14th Street & G Street
 45: 15th Street & F Street
 46: 16th Street & E Street
 47: 16th Street & F Street
 48: 16th Street & G Street
 49: 16th Street & Market Street
 50: 16th Street & Island Avenue
 51: 16th Street & K Street
 52: Imperial Avenue & 16th Street
 53: 17th Street & G Street
 54: 17th Street & J Street
 55: Imperial Avenue & 17th Street
 56: 19th Street & J Street
 57: Imperial Avenue & 19th Street
 58: Logan Avenue & I-5 southbound (SB) off-ramp
 59: Logan Avenue & I-5 SB on-ramp

Freeway Mainline Segments

Freeway segments are within the jurisdiction of the California Department of Transportation (Caltrans). The proposed project is anticipated to contribute more than 50 peak hour trips on I-5 in either direction. Therefore, a freeway segment impact analysis was conducted for I-5 between Grape Street and State Route (SR-) 75. There are currently no ramp meters within the project study area; consequently, ramp meters were not analyzed.

4.12.2.2 Existing Transportation Conditions

Traffic counts on existing roadways and intersections were conducted in September 2016 to establish the existing traffic baseline. The following discussion provides an overview of the existing performance of study area transportation conditions.

Roadway Segments

To determine if a roadway segment is operating effectively, an LOS grade is applied. LOS is an index used to quantitatively evaluate the operational quality of the roadway segments in the study area. LOS on roadway segments is determined by the ratio of the roadway's volume (i.e., Average Daily

Trips [ADTs]) divided by its design capacity, a metric known as volume to capacity (V/C). LOS takes into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety; and expresses these conditions using a letter-graded scale, with “A” representing free flow and “F” representing considerable congestion and delay. Table 4.12-2 provides a more detailed explanation of the LOS categories.

Table 4.12-2. Level of Service Definitions

LOS Category	Definition of Operation
A	This LOS represents a completely free-flow condition, where the operation of vehicles is virtually unaffected by the presence of other vehicles and only constrained by the geometric features of the highway and by driver preferences.
B	This LOS represents a relatively free-flow condition, although the presence of other vehicles becomes noticeable. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.
C	At this LOS the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream is clearly affected by other vehicles.
D	At this LOS, the ability to maneuver is notably restricted due to traffic congestion, and only minor disruptions can be absorbed without extensive queues forming and the service deteriorating.
E	This LOS represents operations at or near capacity. LOS E is an unstable level, with vehicles operating with minimum spacing for maintaining uniform flow. At LOS E, disruptions cannot be dissipated readily, thus causing deterioration down to LOS F.
F	At this LOS, forced or breakdown of traffic flow occurs; although operations appear to be at capacity, queues form behind these breakdowns. Operations within queues are highly unstable, with vehicles experiencing brief periods of movement followed by stoppages.
Source: Transportation Research Board 2000; Appendix K-1	

Roadway segment capacity within the project study area is based on the City of San Diego’s *Traffic Impact Study Manual* (July 1998), and provided as Table 4.12-3. In downtown, the City considers LOS D an acceptable LOS for roadway operations.

Table 4.12-3. Roadway Classifications and LOS Standards

Roadway Classification	LOS A	LOS B	LOS C	LOS D	LOS E
Expressway	30,000	42,000	60,000	70,000	80,000
Primer Arterial	25,000	35,000	50,000	55,000	60,000
Major Arterial (6-lane, divided)	< 20,000	< 28,000	< 40,000	< 45,000	< 50,000
Major Arterial (4-lane, divided)	< 15,000	< 21,000	< 30,000	< 35,000	< 40,000
Collector (4-lane w/ center lane)	< 10,000	< 14,000	< 20,000	< 25,000	< 30,000
Collector (4-lane w/o center lane)	< 5,000	< 10,000	< 13,000	< 15,000	< 20,000
Collector (2-lane w/ continuous left-turn lane)	< 5,000	< 10,000	< 13,000	< 15,000	< 20,000
Collector (2-lane no fronting property)	< 4,000	< 5,500	< 7,500	< 9,000	< 10,000
Collector (2-lane commercial-industrial fronting)	< 2,500	< 3,500	< 5,000	< 6,500	< 8,000

Roadway Classification	LOS A	LOS B	LOS C	LOS D	LOS E
Collector (2-lane multi-family)	<2,500	< 3,500	< 5000	< 6,500	< 8,000
Sub-Collector (2-lane single family)	--	--	2,200	--	--

Source: City of San Diego 1998; Appendix K-1

Bold indicates unacceptable levels.

Existing roadway conditions were determined for two roadways split over 11 segments. As summarized in Table 4.12-4, all study area segments currently operate at LOS D or better.

Table 4.12-4. Existing Conditions at Study Area Roadway Segments

Roadway Segment	Segment	Cross-Section	Threshold (LOS E)	ADT	V/C	LOS
Harbor Drive	Between Laurel St & Hawthorn St	6-Ln w/RM	60,000	53,507	0.892	D
	Between Pacific Hwy & Kettner Blvd	6-Ln w/RM	<50,000	16,750	0.335	A
	Between Kettner Blvd & Market St	6-Ln w/RM	<50,000	18,622	0.372	A
	Between Market St & Front St	6-Ln w/RM	<50,000	17,779	0.356	A
	Between Front St & First Ave	4-Ln w/SM	<40,000	19,129	0.479	B
	Between First Ave & Convention Center Court	4-Ln w/RM	<40,000	18,643	0.466	B
	Between Convention Center Court & Fifth Ave	4-Ln w/SM	<40,000	18,668	0.467	B
	Between Fifth Ave and Park Blvd	4-Ln w/RM	<40,000	19,877	0.497	B
	South of Park Blvd	4-Ln w/RM	<40,000	22,801	0.570	C
Pacific Highway	Between Juniper St & Hawthorn St	6-Ln w/RM	<50,000	8,676	0.174	A
	Between Broadway & Harbor Dr	4-Ln w/SM	<40,000	9,432	0.236	A

Source: Appendix K-1

Notes:

RM = raised median; SM = striped median

Intersections

The *Highway Capacity Manual 2000* (HCM) (Transportation Research Board 2000) defines LOS in terms of delay, or more specifically, average stopped delay per vehicle. The HCM defines LOS in terms of delay, or more specifically, average stopped delay per vehicle. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption, and lost travel time. This technique uses 1,900 vehicles per hour per lane as the maximum saturation volume of an intersection. This saturation volume is adjusted to account for lane width, on-street parking, pedestrians, traffic composition (i.e., percentage of trucks), and shared lane movements (i.e., through and right-turn movements originating from the same lane). The LOS criteria used for signalized intersections is described in Table 4.12-5. In addition, the following assumptions were utilized in conducting all intersection LOS analyses.

- Pedestrian Calls per Hour: 10 calls per hour for each pedestrian movement was assumed.

- **Signal Timing:** Based on existing signal timing plans (as of December 2016), provided in Appendix K-1.
- **Peak Hour Factor:** Based on existing peak hour count data for existing conditions (included in Appendix K-1), and 0.92 for all future conditions.

The City considers LOS E or better during the AM and PM peak hours to be acceptable for intersection LOS in Downtown San Diego.

Table 4.12-5. Signalized Intersection LOS Criteria

Average Stopped Delay Per Vehicle (seconds)	Level of Service (LOS) Characteristics
<10.0	<i>LOS A</i> describes operations with very low delay. This occurs when progression is extremely favorable, and most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
10.1–20.0	<i>LOS B</i> describes operations with generally good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
20.1–35.0	<i>LOS C</i> describes operations with higher delays, which may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
35.1–55.0	<i>LOS D</i> describes operations with high delay, resulting from some combination of unfavorable progression, long cycle lengths, or high volumes. The influence of congestion becomes more noticeable, and individual cycle failures are noticeable.
55.1–80.0	<i>LOS E</i> is considered the limit of acceptable delay. Individual cycle failures are frequent occurrences.
>80.0	<i>LOS F</i> describes a condition of excessively high delay, considered unacceptable to most drivers. This condition often occurs when arrival flow rates exceed the LOS D capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay.

Source: Transportation Research Board 2000.

Unsignalized intersections, including two-way and all-way stop-controlled intersections, were analyzed using the 2000 HCM unsignalized intersection analysis methodology. The Synchro Traffic Analysis software supports this methodology and was utilized to produce LOS results. The LOS for a side street stop-controlled intersection is determined by the computed control delay and is defined for each minor movement.

Table 4.12-6 summarizes the LOS criteria for unsignalized intersections. The City of San Diego considers LOS E or better during the AM and PM peak hours to be acceptable for intersection LOS in the downtown area.

Table 4.12-6. Unsignalized Intersection LOS Criteria

Average Control Delay (sec/veh)	Level of Service (LOS)
≤10	A
>10 and ≤15	B

Average Control Delay (sec/veh)	Level of Service (LOS)
>15 and ≤25	C
>25 and ≤35	D
>35 and ≤50	E
>50	F

Source: Transportation Research Board 2000

Table 4.12-7 displays existing intersection LOS and average vehicle delay for the study area intersections. As shown, all key study intersections currently operate at LOS E or better with the exception of the following.

- 15th Street & F Street (PM peak hour)
- 17th Street & G Street (PM peak hour)
- 19th Street & J Street (PM peak hour)

Table 4.12.7. Existing Peak Hour Intersection Operations

#	Intersection	AM Peak Hour		PM Peak Hour	
		Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
1	Harbor Drive & Laurel Street (S)	17.4	B	46.2	D
2	Harbor Drive & Hawthorn Street (S)	24.4	C	11.5	B
3	Harbor Drive & Grape St (S)	17.7	B	17.1	B
4	Harbor Drive & Ash Street (S)	11.1	B	11.0	B
5	Harbor Drive & Broadway (S)	13.5	B	47.5	D
6	Harbor Drive & Kettner Boulevard (S)	20.0	C	20.9	C
7	Harbor Drive & Market Street (S)	30.8	C	20.6	C
8	Harbor Drive & Front Street (S)	23.6	C	26.5	C
9	First Street & Harbor Drive (S)	8.8	A	18.0	B
10	Harbor Drive & Fifth Avenue (S)	12.0	B	20.7	C
11	Park Boulevard & Harbor Drive (S)	21.2	C	14.6	B
12	Cesar Chavez Parkway & Harbor Drive (S)	19.9	B	37.3	D
13	Pacific Highway & Laurel Street (S)	41.2	D	53.3	D
14	Pacific Highway & Juniper Street (S)	15.1	B	7.1	A
15	Pacific Highway & Hawthorn Street (S)	16.6	B	30.1	C
16	Pacific Highway & Grape Street (S)	35.1	D	48.9	D
17	Pacific Highway & Cedar Street (S)	9.6	A	11.5	B
18	Pacific Highway & Ash Street (S)	20.2	C	20.1	C
19	Pacific Highway & Grand Palm Court (S)	13.2	B	18.8	B
20	Pacific Highway & Broadway (S)	26.7	C	31.1	C
21	Pacific Highway & Harbor Drive (S)	22.8	C	30.3	C
22	Front Street & Beech Street (S)	14.1	B	15.3	B
23	Front Street & A Street (S)	13.1	B	18.8	B

#	Intersection	AM Peak Hour		PM Peak Hour	
		Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
24	Front Street & Broadway (S)	15.8	B	20.3	C
25	First Avenue & I-5 NB On-Ramp/Elm Street (S)	6.2	A	36.1	D
26	First Avenue & Cedar Street (S)	16.8	B	17.7	B
27	First Avenue & Beech Street (S)	21.8	C	58.1	E
28	First Avenue & A Street (S)	12.3	B	17.4	B
29	First Avenue & Broadway (S)	20.9	C	19.6	B
30	Fifth Avenue & Cedar Street (S)	12.6	B	14.9	B
31	Fifth Avenue & Beech Street (S)	12.6	B	15.2	B
32	Fifth Avenue & Broadway (S)	13.0	B	16.4	B
33	Sixth Avenue & Elm Street/I-5 NB Off-Ramp (S)	7.9	A	10.1	B
34	Sixth Avenue & Cedar Street (S)	14.1	B	18.7	B
35	Ninth Street & Ash Street (S)	10.9	B	11.0	B
36	Tenth Avenue & A Street (S)	19.6	B	22.0	C
37	Eleventh Avenue & A Street (S)	27.8	C	20.4	C
38	Eleventh Avenue & Broadway (S)	12.3	B	10.6	B
39	Eleventh Avenue & F Street (S)	6.0	A	8.2	A
40	Eleventh Avenue & G Street (S)	11.4	B	18.8	B
41	Eleventh Avenue & Market Street (S)	18.3	B	13.3	B
42	Park Boulevard & G Street (S)	6.8	A	5.0	A
43	13 th Street & G Street (S)	6.5	A	5.2	A
44	14 th Street & G Street (S)	10.7	B	11.5	B
45	15 th Street & F Street (U)	18.5	C	149.3	F
46	16 th Street & E Street (S)	78.9	E	25.0	C
47	16 th Street & F Street (S)	17.4	B	15.9	B
48	16 th Street & G Street (S)	12.0	B	46.1	D
49	16 th Street & Market Street (S)	11.4	B	18.9	B
50	16 th Street & Island Avenue (U)	10.3	B	13.3	B
51	16 th Street & K Street (U)	13.2	B	17.7	C
52	Imperial Avenue & 16th Street (S)	12.5	B	14.1	B
53	17 th Street & G Street (U)	21.6	C	185.3	F
54	17 th Street & J Street (S)	10.5	B	9.9	A
55	Imperial Avenue & 17 th Street (S)	12.2	B	11.5	B
56	19 th Street & J Street (U)	11.1	B	52.2	F
57	Imperial Avenue & 19 th Street (S)	17.9	B	24.9	C
58	Logan Avenue & I-5 SB Off-Ramp (U)	38.5	E	15.8	C
59	Logan Avenue & I-5 SB On-Ramp (U)	23.4	C	40.5	E

Source: Appendix K-1.

Note: Failing LOS of F is denoted in **bold** text.

S = Signalized intersection; U = Unsignalized intersection

Freeway Mainline Segments

Freeway LOS analysis is based upon procedures developed by Caltrans. The procedure for calculating freeway LOS involves estimating a peak hour V/C ratio. Peak hour volumes are estimated from the application of design hour (“K”), directional (“D”) and truck (“T”) factors to ADT volumes. The base capacities for I-5 were assumed to be 2,350 passenger-car per hour per main lane (pc/h/ln) and 1,410 pc/h/ln (60% of the main lane capacity) for auxiliary lane, respectively.

The resulting V/C ratio is then compared to acceptable ranges of V/C values corresponding to the various LOS for each facility classification, as shown in Table 4.12-8. The corresponding LOS represents an approximation of existing or anticipated future freeway operating conditions in the peak direction of travel during the peak hour. For the purpose of this study, LOS D is considered as the threshold for acceptable freeway operations. LOS D is the level at which speeds begin to decline slightly with increasing flows and density begins to increase somewhat more quickly. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels.

Table 4.12-8. Freeway Mainline Segment LOS Definitions

LOS	V/C	Congestion/Delay	Traffic Description
<i>Used for freeways, expressways and conventional highways</i>			
A	<0.30	None	Free flow.
B	0.31–0.50	None	Free to stable flow, light to moderate volumes.
C	0.51–0.71	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted.
D	0.71–0.89	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
E	0.90–1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
<i>Used for conventional highways</i>			
F	>1.00	Considerable	Forced or breakdown flow. Delay measured in average travel speed (mph). Signalized segments experience delays >60.0 seconds/vehicle.
Source: Caltrans 2002			

Table 4.12-9 summarizes the existing conditions of the study area freeway segments. As shown in the table, all study area freeway mainline segments operate at LOS D or better, with the exception of the following.

- I-5 NB, between Grape Street and First Avenue (LOS E, AM peak)
- I-5 NB, between First Avenue and SR-163 (LOS F, AM peak)
- I-5 NB, between B Street and SR-94 (LOS F, AM peak)
- I-5 SB, between B Street and SR-94 (LOS F, PM peak)

Table 4.12-9. Existing Freeway Mainline Conditions

Freeway/ State Highway	Segment	ADT ¹	Direction	# of Lanes	Capacity ²	HV %	AM Peak Hour			PM Peak Hour		
							Peak Hour Volume	V/C Ratio	LOS	Peak Hour Volume	V/C Ratio	LOS
I-5	Grape Street to First Avenue	169,000	NB	4M	9,400	4.1%	9,070	0.965	E	5,300	0.564	C
			SB	4M	9,400	4.1%	5,370	0.571	C	7,910	0.841	D
	First Avenue to SR-163	213,000	NB	4M	9,400	4.1%	11,430	1.216	F	6,680	0.711	D
			SB	5M	11,750	4.1%	6,760	0.575	C	9,970	0.849	D
	SR-163 and B Street	223,000	NB	6M	14,100	3.7%	11,910	0.845	D	6,960	0.494	B
			SB	6M	14,100	3.7%	7,050	0.500	C	10,390	0.737	D
	B Street to SR-94	223,000	NB	4M	9,400	4.0%	11,950	1.271	F	6,980	0.743	D
			SB	4M	9,400	4.0%	7,070	0.752	D	10,430	1.110	F
	SR-94 to Imperial Avenue	173,000	NB	5M	11,750	3.8%	9,250	0.787	D	5,410	0.460	B
			SB	5M	11,750	3.8%	5,480	0.466	B	8,070	0.687	C
	Imperial Avenue to SR-75	169,000	NB	5M	11,750	4.0%	9,060	0.771	D	5,290	0.450	B
			SB	5M	11,750	4.0%	5,360	0.456	B	7,900	0.672	C

Source: Appendix K-1

Notes:

Bold letter indicates LOS F.

M = Mainline lane.

¹ Traffic volumes provided by Caltrans (2015).² The capacity is calculated as 2,350 ADT per main lane and 1,410 ADT (60% of the main lane capacity) per auxiliary lane.

AM Splits: Directional split = 68.2% in the NB | Peak hour % = 7.8%, provided by Caltrans (2015).

PM Splits: Directional split = 59.9% in the SB | Peak hour % = 7.1%, provided by Caltrans (2015).

HV = Heavy vehicle %

Public Transportation Services

Regional public transportation serving the downtown area includes the COASTER commuter train, the San Diego Trolley, and local bus lines. Planned public transportation services are based on the San Diego Association of Governments' (SANDAG) adopted *San Diego Forward: The Regional Plan*, which identifies planned transit improvements that improve access in the San Diego downtown area and surrounding communities through the year 2050.

COASTER Commuter Train

The COASTER commuter train travels over a 41-mile route along the San Diego coastline, carrying about 5,700 boardings each weekday, totaling 1.7 million trips annually (NCTD 2016). The closest COASTER station to the project site is at the Santa Fe Depot, approximately 1.1 miles walking distance to the north of the project site. COASTER riders (i.e., work commuters) can either transfer to the Green Line Trolley at this location or walk/bike to the project site. Per SANDAG's 2050 Regional Transportation Plan (RTP), the COASTER commuter rail service is anticipated to be extended from its current terminus at Santa Fe Depot to a new Bayside station, providing direct access to Petco Park, San Diego Convention Center (SDCC), and the project site, with service anticipated to begin in 2018.

San Diego Trolley

The San Diego Trolley serves over 32 million annual passengers, with an average weekday ridership of 97,401 (MTS 2013). Each train consists of between one and four cars depending on need. Each car can hold between 96 and 104 passengers during commute times and up to 200 passengers during special events (referred to as *crush load*). This equates to between 384 passengers and up to 800 passengers during special events. As an average, it is assumed each train typically has three cars and operates at car commute capacity, or approximately 300 passengers per rush hour train.

Blue Line

The Metropolitan Transit System (MTS) Blue Line was the first light-rail line constructed in San Diego and was the start of the MTS Trolley System. In operation 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, it services 15.4 miles and includes 18 stations.

The Blue Line currently runs at 7- to 8-minute headways during peak periods and 15-minute headways in off-peak periods. Existing ridership along the Blue Line is estimated at 145 and 151 passengers per train during the AM and PM peak hours, respectively, or about half of the current capacity of 300 passengers per train. The Blue Line stops at the 12th and Imperial Station, which is approximately 1 mile walking distance to the project site.

Orange Line

The MTS Orange Line was the second light-rail line implemented as part of the San Diego Trolley system. Service began in 1986, with the line operating between downtown San Diego and Euclid Avenue to the east. Since its inception, the Orange Line has undergone four expansions, allowing

service to now run between downtown San Diego in the west and Gillespie Field (El Cajon) in the east. In all it services 18 miles and includes 19 stations.

In the downtown area, the Orange Line operates along Park Boulevard, C Street, and the Bayside alignment. The Orange Line currently runs at 15-minute headways during peak periods and 30-minute headways in off-peak times. Existing ridership along the Orange Line is estimated at 76 and 80 passengers per train during the AM and PM peak hours, respectively, which is roughly 25% of the current capacity of 300 passengers per train. Per SANDAG's 2050 RTP, the frequency of the Orange Line is expected to double, reducing the peak period headways to 7.5 minutes during peak periods and 15 minutes in off-peak times by the year 2030. The Orange Line operates along the Bayside alignment (rail line just north of Harbor Drive) and provides access to the project site via the 12th and Imperial Transit Center, which is approximately 1 mile walking distance from the north access point to the project site.

Green Line

The MTS Green Line was the third light-rail line implemented as part of the San Diego Trolley system. In the downtown area, the Green Line operates along the Bayside alignment. The Green Line operates a 15-minute service Monday through Saturday and a 30-minute service on weekend mornings, Sundays, and evenings. In all, the Green Line services 23.6 miles and includes 27 stations.

Service began in 2005, when the 5.9-mile gap between Mission San Diego and Grossmont Transit Center was connected and operations began between Santee Town Center and Old Town. Additionally, the northern terminus of the Blue Line was reestablished at the Old Town Transit Center, and the Orange Line's eastern terminus was modified to serve the Gillespie Field Station. In September 2012, the Green Line was extended through Old Town and now terminates at 12th and Imperial via the Seaport Village, SDCC, and Gaslamp Quarter stations. There are currently two trolley Green Line stations near the project study area.

- Convention Center Station
- Gaslamp Quarter Station

These stations are on the north side of the SDCC along Harbor Drive, approximately 0.23 and 0.17 mile from the project site, respectively.

Local/Express Bus Services

The following MTS bus routes also serve the project study area.

- Route 4—stops at 12th and Imperial, approximately 1 mile from the project site
- Routes 11, 901, and 929—stops at Park Boulevard and 10th Avenue, approximately 0.4 mile from the project site (using the Harbor Drive pedestrian bridge)

Ferry/Water Taxi

In addition to the aforementioned transit services, the following services are provided within the project study area.

- Ferry: provides service between the city of Coronado and the SDCC. The nearest ferry stop is at the project site.

- Water Taxi: provides prearranged services for a minimum of 20 people at a time in the areas of downtown San Diego, Coronado, and Point Loma in the San Diego Bay. The nearest water taxi stop is at the project site.

Pedestrian and Bicycle Facilities

Pedestrian facilities along study roadway segments include the following.

- Harbor Drive, between West G Street and Pacific Highway: Sidewalks and a pedestrian promenade run along the west side of this segment; however, sidewalks are intermittent along the east side.
- Harbor Drive, between Pacific Highway and Kettner Boulevard: Sidewalks are present along both sides of this segment.
- Harbor Drive, between Market Street and Front Street: A sidewalk is present along the south side of this segment. The Martin Luther King Promenade runs parallel to Harbor Drive along the north side of this segment.
- Harbor Drive, between First Avenue and Convention Center Court: A sidewalk is present along the SDCC frontage road, just south of Harbor Drive. The Martin Luther King Promenade runs parallel to Harbor Drive along the north side of this segment.
- Harbor Drive, between Fifth Avenue and Park Boulevard: A sidewalk is present along the SDCC frontage road, just south of Harbor Drive. East of the SDCC, a sidewalk is present along the south side of Harbor Drive. The Martin Luther King Promenade runs parallel to Harbor Drive along the north side of this segment.
- Harbor Drive, south of Park Boulevard: Intermittent sidewalks are present along both sides of Harbor Drive, south of Park Boulevard.
- Pacific Highway, between W. G Street and Harbor Drive: Sidewalks are present along both sides of this segment.

In addition, a Class I bicycle path runs through the project site, between the waterfront and the west side of the SDCC. A second Class I facility is located to the east of the project site, along the railroad right-of-way. Harbor Drive carries a Class III bike route between Pacific Highway and 4th Avenue, before transitioning to a pair of Class II bicycle lanes to the south. In the northern portion of the project study area, a Class II bicycle path runs along the San Diego bayfront adjacent to Harbor Drive, connecting Point Loma to Pacific Highway, while a Class III bike route runs along Pacific Highway north of Harbor Drive.

Parking Conditions

The project site is currently occupied by two parking lots that provide a total of 303 surface parking spaces.

4.12.3 Applicable Laws and Regulations

4.12.3.1 State

California Department of Transportation

Caltrans has jurisdiction over the state highway system and is divided into 12 districts. Caltrans establishes acceptable freeway and on- and off-ramp operations based on the Transportation Research Board's HCM (Transportation Research Board 2000).

Signalized intersections at freeway ramps are required to be analyzed using intersection lane volume (ILV) procedures as described in Topic 406 of the *Highway Design Manual* (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 HCM methodology.

4.12.3.2 Regional

San Diego Association of Government's San Diego Forward: The Regional Plan

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 the year 2050. The Regional Plan was developed in close partnership with the region's 18 cities and the County government, and 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 RTP and Sustainable Communities Strategy (SCS) into one unified plan. By incorporating the SCS, the Regional Plan is in compliance with Senate Bill (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 urbanized areas 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, and, since this 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, and 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.

Riding to 2050, the San Diego Regional Bike Plan

The San Diego Regional Bike Plan (SANDAG 2010) was developed to support the 2004 Regional Comprehensive Plan and the 2050 RTP in implementing the regional strategy for utilizing the bicycle as a valid form of everyday travel. The bike plan, as a part of the SCS mandated by SB 375, provides for a detailed Regional Bike Network, as well as the programs that are necessary to support it. Implementation of the Regional Bike Plan would help the region meet goals for reducing greenhouse gas emissions and improve mobility.

4.12.3.3 Local

The project site is within the land use jurisdiction and control of the District. However, because the streets and intersections serving the project site are within the City's jurisdiction, the following local laws, regulations, and plans were taken into account in the analysis of the proposed project's impacts on transportation and circulation. In addition, the District's Tideland Parking Guidelines were taken into account for the parking analysis.

Downtown Community Plan—Transportation Section

The Transportation section of the Downtown Community Plan establishes a street system within downtown San Diego through a hierarchy of roadway types, including Boulevards, Green Streets, Residential Streets, Main Streets, Multi-Function Streets, Bike Facilities, and Gateways. The Downtown Community Plan includes a series of mitigation requirements, which identify improvements (i.e., adding turn lanes and through lanes) for 62 intersections within the downtown area and indicates the feasibility of each improvement (Wilson & Co. 2005).

City of San Diego Traffic Impact Study Manual

The City's *Traffic Impact Study Manual*, approved in 1998, was created to establish a procedure for determining the type of traffic impact study necessary and to address and establish certain requirements for preparing traffic impact analyses. The manual provides guidance on establishing a study area, deciding how extensive a traffic study should be, setting project phasing, using background information, and adjusting or compensating for transit stations or mixed-use developments. The manual also provides City thresholds for acceptable roadway and intersection operations and further guidance on the City's internal review process, to aid consultants in traffic study preparation.

City of San Diego Street Design Manual

The City's *Street Design Manual* (City of San Diego 2002) provides information and guidance for the design of public right-of-way that accommodates a variety of potential users, including motorists, pedestrians, and bicyclists. The *Street Design Manual* is divided into six sections: Roadway Design, Pedestrian Design, Traffic Calming, Street Lighting, Parkway Configurations, and Design Standards. The guidelines are focused on the development of new or undeveloped areas as well as redeveloping areas and are not intended to supersede other guidelines developed in other local planning documents, such as community plans, specific plans, and RTPs.

City of San Diego Bicycle Master Plan

The City of San Diego Bicycle Master Plan (2002) and Bicycle Master Plan Update (2013) provide a framework for making cycling a more practical and convenient transportation option for San Diegans at different riding purposes and skill levels. The Bicycle Master Plan is a 20-year policy document that guides the development and maintenance of San Diego's bicycle network. The bicycle network includes all roadways that bicyclists have the legal right to use, support facilities, and non-infrastructure programs. The plan includes direction for policymakers on the expansion of the existing bikeway network, connecting gaps, addressing constrained areas, improving intersections, providing for greater local and regional connectivity, and encouraging more residents to bicycle more often. The 2013 update builds on the 2002 version by updating bicycling needs by addressing changes to the bicycle network and overall infrastructure.

City of San Diego Pedestrian Master Plan

The Pedestrian Master Plan (City of San Diego 2006) provides guidelines to the City that will enhance neighborhood quality and mobility options through the facilitation of pedestrian improvement projects. The Pedestrian Master Plan both identifies and prioritizes pedestrian improvement projects through technical analysis and community input programs, which are typically grant-funded.

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 tidelands 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 the 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 bay access). The guidelines establish parking demand rates as well as adjustment factors for determining parking requirements of a development. The project's specific parking requirements are established in Section 4.12.4.3, *Project Impacts and Mitigation Measures*.

4.12.4 Project Impact Analysis

4.12.4.1 Methodology

Potential transportation and circulation impacts associated with the proposed project are summarized below from Appendix K-1. Methods used to determine project-related impacts were performed in accordance with the requirements of the City of San Diego *Traffic Impact Study Manual*, the City of San Diego's CEQA Significance Determination Thresholds, and the *Downtown San Diego Traffic Impact Assessment Methodology Evaluation of New Projects* (June 2007). The analysis of intersections, which uses the guidance provided in the *Downtown San Diego Traffic Impact*

Assessment Methodology Evaluation of New Projects, deviates from the traffic impact thresholds outlined in the City of San Diego Significance Determination Thresholds (2016). It should be noted that these impact standards are only applicable within the Centre City area. In addition, it should be noted that there are currently no ramp meters within the project study area.

For more details related to the methods used, please see Appendix K-1, Chapter 2, *Analysis Methodology*.

Intersections

A project within the Centre City (Downtown San Diego) community is considered to have a significant impact on the traffic operations of an intersection when one of the following occurs.

- The addition of project traffic results in LOS dropping from LOS E or better to LOS F. Under this condition, the project is determined to have a direct impact and mitigation measures would be necessary to restore the intersection LOS to LOS E conditions or better.
- If an intersection is operating at LOS F under base conditions and the project adds more than 2 seconds of average vehicle delay, the project is determined to have a cumulatively significant impact and mitigation measures would be necessary to bring the intersection LOS to pre-development conditions or better.

Roadway Segments, Freeway Segments, and Ramp Metering

The City of San Diego Significance Determination Thresholds (2016) define project impact thresholds by facility type. These thresholds are generally based upon an acceptable increase in the V/C ratio for roadway and freeway mainline segments, and upon increases in vehicle delays for (non-Centre City) intersections and ramps.

Within the City of San Diego's jurisdiction, LOS D is considered acceptable for roadway operations. A project is considered to have a significant impact if it degrades the operations of a roadway from an acceptable LOS (D or better) to an unacceptable LOS (E or F), or if it adds additional delay to a facility already operating an unacceptable level. Table 4.12-10 summarizes the impact significance thresholds as identified within the City of San Diego's guidelines beyond which mitigation measures are required.

In addition, per the City's *Traffic Impact Study Manual*, if a project would not generate 150 peak hour trips along a freeway segment, the project's impact would be less than significant and no freeway analysis would be required.

Table 4.12-10. City of San Diego Measure of Significant Project Traffic Impacts

LOS with Project	Allowable Change Due to Impact				
	Freeways		Roadway Segments		Ramp Metering
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (min.)
E (or ramp meter delays above 15 min.)	0.01	1.0	0.02	1.0	2.0
F (or ramp meter delays above 15 min.)	0.005	0.5	0.01	0.5	1.0

Source: City of San Diego 2016

LOS = level of service; mph = miles per hour; V/C = volume to capacity ratio

¹ These standards only apply to intersections outside of the downtown area.

Pedestrian, Bicycle, and Transit

Potential impacts relating to pedestrian, bicycle, and transit circulation would be considered significant if the proposed project would substantially increase hazards due to a design feature, or would conflict with the adopted policies, plans, or programs supporting alternative transportation, as outlined in Appendix G of the State CEQA Guidelines.

Parking

A significant parking impact would occur if insufficient parking was provided as defined by the District's Tidelands Parking Guidelines. If a parking space deficiency is identified, which would be based on the availability of spaces for existing workers and visitors plus new workers and visitors associated with the proposed project, then an evaluation of the potential physical impacts associated with insufficient parking would be conducted, and a determination as to the level of significance would be made.

Trip Generation

Construction

Construction of the proposed project is anticipated to begin in end of Year 2018 and to occur over a 24- to 30-month period with the exception of Phase II of the marina expansion, which is not anticipated to occur until 5 years after the hotel becomes operational. However, the peak of construction is anticipated to occur between May and June of Year 2020 (with Construction Phases 2.2, 2.3, 2.5, 2.6, 2.7, 3.1, 3.2, 3.3, 3.4, and 4.1 all overlapping). As a worst-case scenario, it was assumed that all workers would drive individual vehicles to the staging area on Belt Street, and would arrive and depart during the AM and PM peak hours, respectively. It was also assumed that the delivery trucks/vans would only arrive and depart during non-peak hours when the actual construction work is taking place. Table 4.12-11 displays the assumed vehicle trip generation during the peak of project construction. As shown, construction of the proposed project is anticipated to generate approximately 1,158 daily trips to the staging area on Belt Street during the peak of project construction, including 519 trips during the AM and PM peak hours.

Table 4.12-11. Project Construction Trip Generation

Use	Units	Vehicle Conversion Rate	Rate	Daily Vehicle Trips	AM Peak Hour		PM Peak Hour	
					In	Out	In	Out
Construction Worker Traffic	495	1	2/Worker	990	495	0	0	495
Delivery Truck/Van Traffic	28	3	2/Truck	168	12	12	12	12
Total				1,158	507	12	12	507

Source: Appendix K-1

Additionally, it is assumed that once all workers arrive to the staging area, shuttles would transport them to the project site via Harbor Drive. Also, the same number of delivery trucks/vans that would transport construction material to the staging area was assumed to transport it to the project site. Table 4.12-12 displays the assumed vehicle trip generation for the staging area during the peak of project construction.

Table 4.12-12. Staging Area Trip Generation

Use	Units	Vehicle Conversion Rate	Rate	Daily Vehicle Trips	AM Peak Hour		PM Peak Hour	
					In	Out	In	Out
Shuttles	33 ¹	1.5	4 / Worker	198	50	50	50	50
Delivery Truck/Van Traffic	28	3	2 / Truck	168	12	12	12	12
Total				366	62	62	62	62

Source: Appendix K-1

Note:

¹ It is assumed that 1 shuttle can accommodate 15 workers = 495 workers / 15 = 33 shuttles.

As shown, proposed project construction is anticipated to generate approximately 366 daily trips to the project site during the peak of project construction, including 124 trips during the AM and PM peak hours. These trips would be added to the roadway segments along Harbor Drive between Park Boulevard and Sampson Street. This would result in a combined construction trip generation of 1,524 daily trips (including 643 trips during the AM and PM peak hours) during the peak of project construction when accounting for vehicle trips to the staging area, and vehicle trips from the staging area to the project site. These trips would represent the worst-case scenario of project-related construction traffic. Additional traffic counts were taken in support of the construction analysis considering the use of the construction staging area for employees and equipment. Count worksheets are provided in Appendix K-1.

Operation

Trip generation rates for the proposed project were developed utilizing Table 5: Centre City Cumulative Trip Generation Rates from the City of San Diego's *Trip Generation Manual* (City of San

Diego 2003). Table 4.12-13 displays daily, as well as AM and PM peak hour, project trip generation. As shown in the table, the proposed project would generate a total of 8,486 daily trips, including 499 (298 in/201 out) AM peak hour trips, and 679 (405 in/274 out) PM peak hour trips.

Trip distribution for the proposed project was developed based on the approved distribution assumed for the hotel uses in the SDCC Phase III Expansion and Hotel Expansion EIR. Figure 4.12-2 displays the assumed trip distribution patterns associated with the proposed project. Based upon the assumed project trip distribution as well as the anticipated project trip generation (Table 4.12-13), daily and AM/PM peak hour project trips were assigned to the adjacent roadway network, as displayed in Figure 4.12-3.

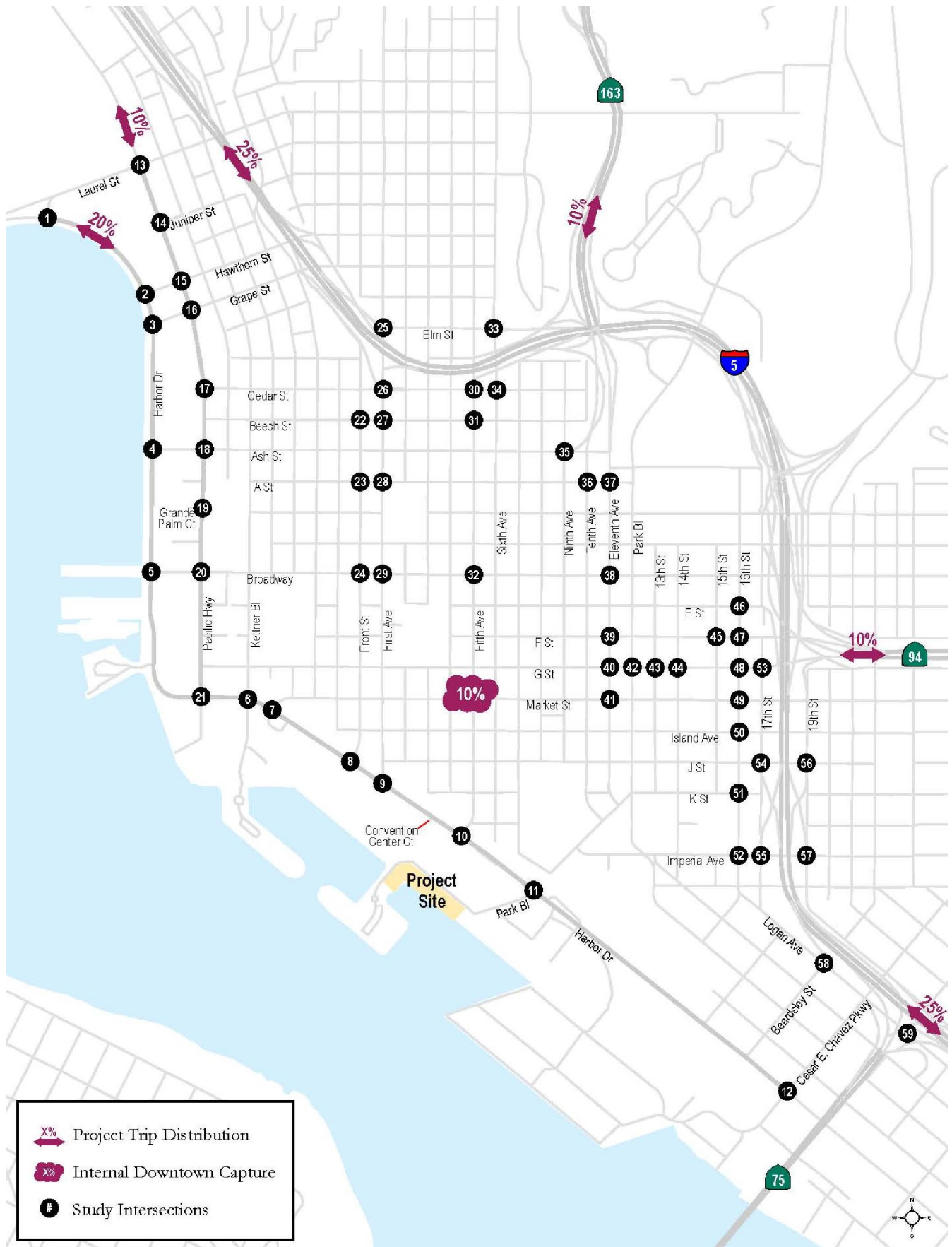


Figure 4.12-2
Project Trip Distribution
Fifth Avenue Landing Project

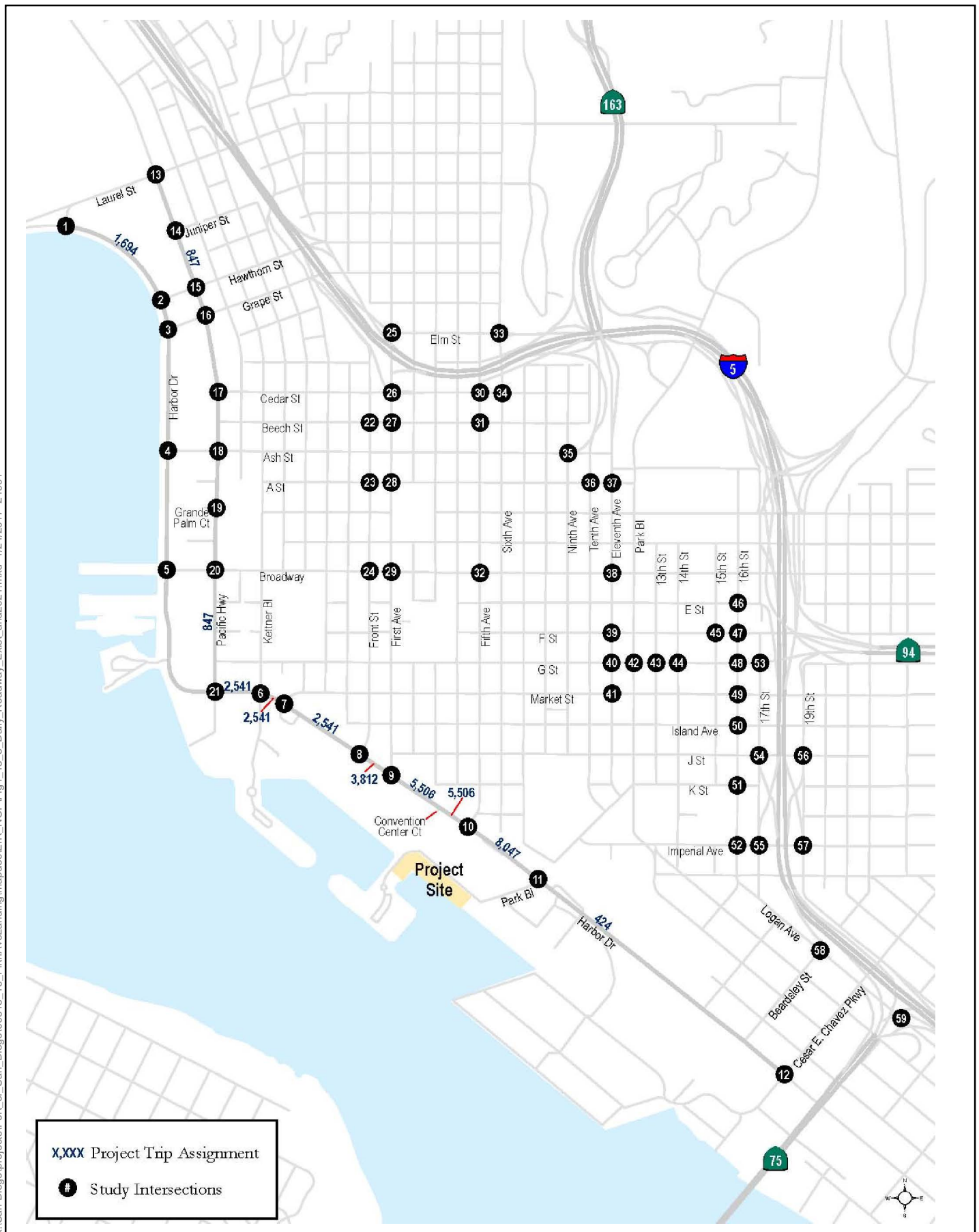


Table 4.12-13. Project Trip Generation

Land Use	Units	Trip Rate	ADT	AM					PM				
				%	Trips	Split	In	Out	%	Trips	Split	In	Out
Hotel (w/convention facilities/restaurant)	850 Rooms	9/Room	7,650	6%	459	(6:4)	275	184	8%	612	(6:4)	367	245
Lower-cost Visitor-serving Hotel	565 Beds	1/Bed ¹	565	6%	34	(6:4)	20	14	8%	46	(6:4)	28	18
Marina	50 Slips	4/Slips	200	3%	6	(5:5)	3	3	7%	14	(5:5)	7	7
Public Plaza and Park Areas	1.96 Acres	60/Acres ²	63	0%	0	N/A	0	0	11%	7	(4:6)	3	4
Total			8,486		499		298	201		679		405	274

Source: City of San Diego 2003; Appendix K-1

Notes:

The 6,000 square feet of retail is anticipated to serve hotel guests and not attract outside patrons other than passers-by already in the project area. Therefore, it was not included in the project trip generation.

¹ Lower-cost, Visitor-serving Hotel trip generation rate was based on the rate provided in the Fort Ord Youth Hostel Initial Study, July 17, 2015.

² The City of San Diego Trip Generation Rate for Beach, Ocean or Bay was utilized for this land use.

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 on existing transportation and circulation conditions as a result of the proposed project's implementation. The determination of whether a transportation and circulation impact would be significant is based on the answers to the threshold questions in conjunction with the below-referenced supplemental thresholds. Ultimately, a determination as to significance 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, 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. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
2. Conflict with applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
5. Result in inadequate emergency access.
6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.
7. Result in an insufficient supply of parking to meet the project demand.

4.12.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

Impact Discussion

Construction

Construction of the proposed project is anticipated to begin in 2018 and would occur over a 24- to 30-month period, ending in 2021 when the project is fully operational. Peak construction is anticipated to occur between May and June of 2020. As shown in Table 4.12-11, construction of the proposed project is anticipated to generate approximately 1,158 daily trips to the construction staging area, including 519 trips during the AM and PM peak hours, and approximately 366 daily trips (124 trips during the AM and PM peak hours) from the staging area to the project site. These trips would be added to the roadway segments along Harbor Drive between Park Boulevard and Sampson Street from the staging site, for a combined total of 1,524 daily trips (643 trips during the AM and PM peak hours).

Roadways

Table 4.12-14 displays the daily roadway segment LOS results for the Existing Condition and the Existing Condition Plus Project Construction scenarios. As shown, all roadway segments are projected to operate at LOS C or better under the Existing Plus Project Construction scenario with the exception of the roadway segment of 28th Street between National Avenue and Boston Avenue, where the construction traffic associated with the proposed project would reduce the LOS to F (**Impact-TRA-1**).

Mitigation in the form of a transportation demand management (TDM) plan during construction is required to reduce the significant impact by limiting the number of construction worker trips through the affected roadway segment during peak periods (**MM-TRA-1**).

Table 4.12-14. Roadway Segment Analysis: Existing Condition Plus Project Construction

Roadway	Segment	Cross-Section	Threshold (LOS E)	Existing Condition	Existing Condition + Project Construction			Δ	Sig ?
				ADT / V/C / LOS	ADT	V/C	LOS		
Harbor Drive	Between Park Blvd and Beardsley St	4-Lane w/RM	<40,000	22,801 / 0.570 / C	23,167	0.580	C	0.10	N
	Between Beardsley St and Cesar Chavez Pkwy	4-Lane w/RM	<40,000	20,194 / 0.505 / B	20,560	0.514	B	0.009	N
	Between Cesar Chavez Pkwy and Sampson Street	4-Lane w/RM	<40,000	10,564 / 0.264 / A	10,912	0.273	A	0.009	N
	Between Sampson St and Schley St	4-Lane w/RM	<40,000	12,050 / 0.301 / A	13,208	0.330	A	0.029	N
	Between Schley St and 28 th St	4-Lane w/RM	<40,000	11,626 / 0.291 / A	12,784	0.320	A	0.029	N
28 th Street	Between National Ave and Boston Ave	3-Lane	<22,500	22,112 / 0.983 / E	23,062	1.025	F	0.042	Y
	Between Boston Ave and Main St	4-Lane	<30,000	19,563/0.652/C	20,721	0.691	D	0.039	N
	Between Main St and Harbor Dr	4-Lane w/RM	<40,000	16,134/0.403/B	17,292	0.432	B	0.029	N

Source: Appendix K-1.

Notes:

V/C = volume to capacity ratio; RM = raised median; SM = striped median

Intersections

Table 4.12-15 displays intersection LOS and average vehicle delay results for both Existing and Existing Plus Project Construction conditions.

Table 4.12-15. Peak Hour Intersection Level of Service Results: Existing Plus Project Construction

#	Intersection	Existing Condition Delay (sec) AM/PM	Existing Condition LOS AM/PM	Existing Condition + Project		Existing Condition + Project		Change in Delay (sec) AM/PM	Significant Impact?
				AM Peak Hour		PM Peak Hour			
				Average Delay (sec)	LOS	Average Delay (sec)	LOS		
1	28 th St & National Ave	32.9/19.6	C/B	34.4	C	19.9	B	1.5/0.3	N/N
2	I-5 NB Off-Ramp & National Ave	32.3/36.8	C/D	50.2	D	37.2	D	17.9/0.4	N/N
3	28 th St & Boston Ave	10.2/13.2	B/B	11.2	B	14.8	B	1.0/1.6	N/N
4	I-5 SB On-Ramp & Boston Ave	21.2/61.1	C/F	21.6	C	324.8	F	0.4/263.7	N/Y
5	28 th St & Main St	16.9/24.7	B/C	21.0	C	34.9	C	4.1/10.2	N/N
6	Park Blvd & Harbor Dr	21.2/14.5	C/B	39.6	D	16.0	B	18.4/1.5	N/N
7	Cesar Chavez Pkwy & Harbor Dr	19.9/20.7	B/C	20.4	C	21.4	C	0.5/0.7	N/N
8	Sampson St & Harbor Dr	18.6/17.6	B/B	70.7	E	99.0	F	52.1/81.4	Y/Y
9	Schley St & Harbor Dr	9.7/4.8	A/A	10.7	B	5.6	A	1.0/0.8	N/N
10	28 th St & Harbor Dr	18.0/15.3	B/B	19.7	B	27.9	C	1.7/12.6	N/N

Source: Appendix K-1

As shown, all key study intersections are projected to operate at acceptable LOS D or better under the Existing Plus Project Construction scenario, with the exception of the following.

AM Peak:

- Sampson Street & Harbor Drive

PM Peak:

- I-5 SB on-ramp & Boston Avenue
- Sampson Street & Harbor Drive

Based on the significance criteria presented in Section 4.12.4.1, *Methodology*, and specifically *Intersections*, construction traffic associated with the proposed project would add more than 2 seconds of delay at the following intersections that already operate at unacceptable LOS, which would result in significant traffic-related impacts (**Impact-TRA-2**).

AM Peak:

- Sampson Street & Harbor Drive

PM Peak:

- I-5 SB on-ramp & Boston Avenue
- Sampson Street & Harbor Drive

Mitigation in the form of a TDM plan during construction is required to reduce the significant impact by limiting the number of construction worker trips through the affected intersections during peak periods (**MM-TRA-1**).

Freeways

Table 4.12-16 displays the LOS results from the freeway mainline segment analysis under Existing Plus Project Construction Conditions. As shown in Table 4.12-16, all study area freeway mainline segments operate at LOS D or better, with the exception of the following:

- I-5 NB, between Grape Street and First Avenue (LOS E, AM peak)
- I-5 NB, between First Avenue and SR-163 (LOS F, AM peak)
- I-5 NB, between B Street and SR-94 (LOS F, AM peak)
- I-5 SB, between B Street and SR-94 (LOS F, PM peak)
- SR-163 NB, south of Robinson Avenue (LOS E, AM peak)
- SR-163 NB, south of Robinson Avenue (LOS F, PM peak)
- SR-163 SB, south of Robinson Avenue (LOS F, AM peak)

Based on the City of San Diego's Significance Criteria, the traffic associated with the proposed project would not cause a significant change in the V/C ratio (add more than 0.010 for LOS E or 0.005 for LOS F) to any of the analyzed freeway segments. Therefore, project-related impacts on freeway segments under Existing Plus Project Construction conditions would be less than significant.

Table 4.12-16. Freeway Mainline Analysis – Existing Plus Project Construction Conditions

Freeway/ State Highway	Segment	Existing ADT	E+P ADT	Direction	AM Peak Hour					PM Peak Hour				
					Peak Hour Volume	V/C Ratio	LOS	Δ	S?	Peak Hour Volume	V/C Ratio	LOS	Δ	S?
I-5	Grape Street to First Avenue	169,000	169,400	NB	8,720	0.928	E	0.002	N	5,090	0.541	C	0.001	N
				SB	5,160	0.549	C	0.001	N	7,610	0.810	D	0.003	N
	First Avenue to SR-163	213,000	213,400	NB	10,980	1.168	F	0.002	N	6,420	0.683	C	0.001	N
				SB	6,500	0.553	C	0.001	N	9,580	0.815	D	0.001	N
	SR-163 and B Street	223,000	223,700	NB	11,510	0.816	D	0.002	N	6,730	0.477	B	0.001	N
				SB	6,810	0.483	B	0.001	N	10,040	0.712	D	0.002	N
	B Street to SR-94	223,000	223,700	NB	11,510	1.224	F	0.003	N	6,730	0.716	D	0.002	N
				SB	6,810	0.724	D	0.002	N	10,050	1.069	F	0.004	N
	SR-94 to Imperial Avenue	173,000	173,700	NB	8,940	0.761	D	0.004	N	5,220	0.444	B	0.001	N
				SB	5,290	0.450	B	0.001	N	7,800	0.664	C	0.003	N
	Imperial Avenue to SR-75	169,000	169,700	NB	8,730	0.743	D	0.003	N	5,100	0.434	B	0.002	N
				SB	5,170	0.440	B	0.002	N	7,620	0.649	C	0.003	N
	SR-75 to 28th Street	167,000	167,700	NB	9,440	0.773	D	0.004	N	8,490	0.695	C	0.004	N
				SB	2,600	0.241	A	0.004	N	5,290	0.489	B	0.001	N
	28th Street to I-15	163,000	163,400	NB	7,900	0.840	D	0.004	N	8,230	0.876	D	0.003	N
				SB	3,140	0.334	B	0.001	N	5,880	0.626	C	0.002	N
SR-163	South of Robinson Avenue	114,000	114,300	NB	4400	0.936	E	0.002	N	6400	1.362	F	0.002	N
				SB	6470	1.377	F	0.005	N	3820	0.813	D	0.002	N
Source: Appendix K-1														

Operation

Roadway Segments

Table 4.12-17 displays the LOS analysis results for key roadway segments under Existing Plus Project Conditions. As shown, all of the roadways within the study area are projected to continue operating at an acceptable LOS D or better. Impacts would be less than significant.

Table 4.12-17. Roadway Segment Analysis: Existing Plus Project Conditions

Roadway	Segment	Cross-Section	Threshold (LOS E)	Existing	Existing + Project			Change in V/C	S?
				ADT/V/C/LOS	ADT	V/C	LOS		
Harbor Drive	Between Laurel Street & Hawthorn Street	6-Lane w/RM	<60,000	53,507/0.892/D	55,201	0.920	D	0.028	N
	Between Pacific Highway and Kettner Boulevard	6-Lane w/RM	<50,000	16,750/0.335/A	19,291	0.386	A	0.051	N
	Between Kettner Boulevard & Market Street	6-Lane w/RM	<50,000	18,622/0.372/A	21,163	0.423	A	0.051	N
	Between Market Street and Front Street	6-Lane w/RM	<50,000	17,779/0.356/A	20,320	0.406	A	0.051	N
	Between Front Street and First Avenue	4-Lane w/SM	<40,000	19,129/0.479/B	22,941	0.574	B	0.095	N
	Between First Avenue & Convention Center Court	4-Lane w/RM	<40,000	18,643/0.466/B	24,149	0.604	B	0.138	N
	Between Convention Center Court & Fifth Avenue	4-Lane w/SM	<40,000	18,668/0.467/B	24,174	0.604	B	0.138	N
	Between Fifth Avenue and Park Boulevard	4-Lane w/RM	<40,000	19,877/0.497/B	27,924	0.698	B	0.201	N
	South of Park Boulevard	4-Lane w/RM	<40,000	22,801/0.570/C	23,225	0.581	C	0.011	N
Pacific Highway	Between Juniper Street & Hawthorn Street	6-Lane w/RM	<50,000	8,676/0.174/A	9,523	0.190	A	0.017	N
	Between Broadway & Harbor Drive	4-Lane w/SM	<40,000	9,432/0.236/A	10,279	0.257	A	0.021	N

Source: Appendix K-1

Notes:

ADT = average daily trips; LOS = level of service; RM = raised median; SM = striped median; S? = significant impact; V/C = volume to capacity ratio

Intersections

Table 4.12-18 displays the intersection analysis and average vehicle delay results under Existing Plus Project Conditions. As shown, the following intersections would operate at LOS F under Existing Plus Project Conditions during the PM peak hour.

- 15th Street & F Street
- 17th Street & G Street
- 19th Street & J Street

At 15th and F streets, the project would result in a change in delay of 15.8 seconds; at 17th and G streets, the project would result in a change in delay of 28 seconds; and at 19th and J, the project would result in a change in delay of 18.6 seconds. Per the City's significance criteria defined under 4.12.4.1 *Methodology*, and specifically *Intersections*, the proposed project would result in significant impacts at these three intersections (**Impact-TRA-3**).

Table 4.12-18. Peak Hour Intersection Analysis: Existing Plus Project Conditions

#	Intersection	Existing Condition Delay (sec) AM/PM	Existing Condition LOS AM/PM	Existing + Project AM Peak Hour		Existing + Project PM Peak Hour		Change in Delay (sec) AM/PM	Significant Impact?
				Average Delay (sec)	LOS	Average Delay (sec)	LOS		
1	Harbor Drive & Laurel Street	17.4/46.2	B/D	17.6	B	46.2	D	0.2/0.0	N/N
2	Harbor Drive & Hawthorn Street	24.4/11.5	C/B	24.4	C	11.5	B	0.0/0.0	N/N
3	Harbor Drive & Grape Street	17.7/17.1	B/B	17.7	B	17.1	B	0.0/0.0	N/N
4	Harbor Drive & Ash Street	11.1/11.0	B/B	12.9	B	15.3	B	1.8/4.3	N/N
5	Harbor Drive & Broadway	13.5/47.5	B/D	13.5	B	47.5	D	0.0/0.0	N/N
6	Harbor Drive & Kettner Boulevard	20.0/20.9	C/C	20.0	B	21.1	C	0.0/0.2	N/N
7	Harbor Drive & Market Street	30.8/20.6	C/C	31.0	C	20.6	C	0.2/0.0	N/N
8	Harbor Drive & Front Street	23.6/26.5	C/C	24.8	C	39.5	D	1.2/13.0	N/N
9	First Street & Harbor Drive	8.8/18.0	A/B	8.8	A	19.0	B	0.0/1.0	N/N
10	Harbor Drive & Fifth Avenue	12.0/20.7	B/C	19.1	B	30.1	C	7.1/9.4	N/N
11	Park Boulevard & Harbor Drive	21.2/14.6	C/B	29.6	C	17.6	B	8.4/3.0	N/N
12	Cesar Chavez Parkway & Harbor Drive	19.9/25.4	B/C	21.2	C	26.9	C	1.3/1.5	N/N
13	Pacific Highway & Laurel Street	41.2/53.3	D/D	41.2	D	53.3	D	0.0/0.0	N/N
14	Pacific Highway & Juniper Street	15.1/7.1	B/A	14.0	B	7.1	A	-1.1/0.0	N/N
15	Pacific Highway & Hawthorn Street	16.6/30.1	B/C	17.3	B	30.7	C	0.7/0.6	N/N
16	Pacific Highway & Grape Street	35.1/48.9	D/D	35.1	C	49.5	D	0.0/0.6	N/N
17	Pacific Highway & Cedar Street	9.6/11.5	A/B	9.6	A	11.5	B	0.0/0.0	N/N
18	Pacific Highway & Ash Street	20.2/20.1	C/C	20.2	C	20.1	C	0.0/0.0	N/N
19	Pacific Highway & Grand Palm Court	13.2/18.8	B/B	13.2	B	18.8	B	0.0/0.0	N/N
20	Pacific Highway & Broadway	26.7/31.1	C/C	26.7	C	31.1	C	0.0/0.0	N/N
21	Pacific Highway & Harbor Drive	22.8/30.3	C/C	22.8	C	32.1	C	0.0/1.8	N/N
22	Front Street & Beech Street	14.1/15.3	B/B	14.3	B	15.3	B	0.2/0.0	N/N
23	Front Street & A Street	13.1/18.8	B/B	13.2	B	18.8	B	0.1/0.0	N/N

#	Intersection	Existing Condition Delay (sec) AM/PM	Existing Condition LOS AM/PM	Existing + Project AM Peak Hour		Existing + Project PM Peak Hour		Change in Delay (sec) AM/PM	Significant Impact?
				Average Delay (sec)	LOS	Average Delay (sec)	LOS		
24	Front Street & Broadway	15.8/20.3	B/C	16.2	B	20.9	C	0.4/0.6	N/N
25	First Avenue & I-5 NB on-ramp/Elm Street	6.2/36.1	A/D	6.2	A	36.1	D	0.0/0.0	N/N
26	First Avenue & Cedar Street	16.8/17.7	B/B	16.9	B	17.7	B	0.1/0.0	N/N
27	First Avenue & Beech Street	21.8/58.1	C/E	22.1	C	58.1	E	0.3/0.0	N/N
28	First Avenue & A Street	12.3/17.4	B/B	12.3	B	17.5	B	0.0/0.1	N/N
29	First Avenue & Broadway	20.9/19.6	C/B	21.3	C	20.0	B	0.4/0.4	N/N
30	Fifth Avenue & Cedar Street	12.6/14.9	B/B	12.7	B	15.0	B	0.1/0.1	N/N
31	Fifth Avenue & Beech Street	12.6/15.2	B/B	12.6	B	15.2	B	0.0/0.0	N/N
32	Fifth Avenue & Broadway	13.0/16.4	B/B	13.1	B	17.4	B	0.1/1.0	N/N
33	Sixth Ave & Elm Street/I-5 NB off-ramp	7.9/10.1	A/B	7.9	A	10.1	B	0.0/0.0	N/N
34	Sixth Avenue & Cedar Street	14.1/18.7	B/B	14.2	B	18.8	B	0.1/0.1	N/N
35	Ninth Street & Ash Street	10.9/11.0	B/B	10.9	B	11.0	B	0.0/0.0	N/N
36	Tenth Avenue & A Street	19.6/22.0	B/C	20.1	C	22.1	C	0.5/0.1	N/N
37	Eleventh Avenue & A Street	27.8/20.4	C/C	28.1	C	20.7	C	0.3/0.3	N/N
38	Eleventh Avenue & Broadway	12.3/10.6	B/B	12.4	B	10.6	B	0.1/0.0	N/N
39	Eleventh Avenue & F Street	6.0/8.2	A/A	6.1	A	8.2	A	0.1/0.0	N/N
40	Eleventh Avenue & G Street	11.4/18.8	B/B	11.5	B	19.4	B	0.1/0.6	N/N
41	Eleventh Avenue & Market Street	18.3/13.3	B/B	18.7	B	13.5	B	0.4/0.2	N/N
42	Park Boulevard & G Street	6.8/5.0	A/A	6.8	A	5.0	A	0.0/0.0	N/N
43	13 th Street & G Street	6.5/5.2	A/A	6.5	A	5.3	A	0.0/0.1	N/N
44	14 th Street & G Street	10.7/11.5	B/B	10.7	B	11.5	B	0.0/0.0	N/N
45	15 th Street & F Street	18.5/149.3	C/F	18.5	C	165.1	F	0.0/15.8	N/Y
46	16 th Street & E Street	78.9/25.0	E/C	78.9	E	25.0	C	0.0/0.0	N/N
47	16 th Street & F Street	17.4/15.9	B/B	17.8	B	15.9	B	0.4/0.0	N/N

#	Intersection	Existing Condition Delay (sec) AM/PM	Existing Condition LOS AM/PM	Existing + Project AM Peak Hour		Existing + Project PM Peak Hour		Change in Delay (sec) AM/PM	Significant Impact?
				Average Delay (sec)	LOS	Average Delay (sec)	LOS		
48	16 th Street & G Street	12.0/46.1	B/D	12.0	B	49.6	D	0.0/3.5	N/N
49	16 th Street & Market Street	11.4/18.9	B/B	11.4	B	18.9	B	0.0/0.0	N/N
50	16 th Street & Island Avenue	10.3/13.3	B/B	10.8	B	14.0	B	0.5/0.7	N/N
51	16 th Street & K Street	13.2/17.7	B/C	13.5	B	18.6	C	0.3/0.9	N/N
52	Imperial Avenue & 16 th Street	12.5/14.1	B/B	12.6	B	14.3	B	0.1/0.2	N/N
53	17 th Street & G Street	21.6/185.3	C/F	21.9	C	213.3	F	0.3/ 28.0	N/ Y
54	17 th Street & J Street	10.5/9.9	B/A	10.5	A	10.5	B	0.0/0.6	N/N
55	Imperial Avenue & 17 th Street	12.2/11.5	B/B	12.3	B	11.7	B	0.1/0.2	N/N
56	19 th Street & J Street	11.1/52.2	B/F	11.9	B	70.8	F	0.8/ 18.6	N/ Y
57	Imperial Avenue & 19 th Street	17.9/24.9	B/C	18.4	B	27.3	C	0.5/2.4	N/N
58	Logan Avenue & I-5 SB off-ramp	38.5/15.8	E/C	43.5	E	16.9	C	5.0/1.1	N/N
59	Logan Avenue & I-5 SB on-ramp	23.4/40.5	C/E	24.2	C	43.1	E	0.8/2.6	N/N

Source: Appendix K-1

Note:

Bold text indicates a significant impact.

LOS = level of service

Freeways

LOS analysis results for freeway mainline segments are presented in Table 4.12-19 (existing freeway mainline conditions are presented in Table 4.12-9, above). As shown in the table, all study area freeway mainline segments would operate at LOS D or better, except the following.

- I-5 NB, between Grape Street and First Avenue (LOS E, AM peak)
- I-5 NB, between First Avenue and SR-163 (LOS F, AM peak)
- I-5 NB, between B Street and SR-94 (LOS F, AM peak)
- I-5 NB, between B Street and SR-94 (LOS F, PM peak)

As shown in Table 4.12-18, increased traffic associated with the proposed project would result in a change of 0.012 in the V/C ratio for the segment of NB I-5 between Grape Street and First Avenue in the AM peak hour, which would exceed 0.010 significance threshold for a segment operating at LOS E (see Table 4.12-10). Therefore, the proposed project would result in a significant impact along this freeway segment (**Impact-TRA-4**).

Table 4.12-19. Freeway Mainline Analysis: Existing Plus Project Conditions

Freeway/ State Highway	Segment	Existing + Project ADT	Direction	Existing + Project AM Peak Hour					Existing + Project PM Peak Hour				
				Peak Hour Volume	V/C Ratio	LOS	Δ	S?	Peak Hour Volume	V/C Ratio	LOS	Δ	S?
I-5	Grape Street to First Avenue	171,100	NB	9,180	0.977	E	0.012	Y	5,360	0.570	C	0.006	N
			SB	5,430	0.578	C	0.007	N	8,010	0.852	D	0.011	N
	First Avenue to SR-163	213,400	NB	11,450	1.218	F	0.002	N	6,690	0.712	D	0.001	N
			SB	6,780	0.577	C	0.002	N	9,990	0.850	D	0.001	N
	SR-163 and B Street	223,400	NB	11,930	0.846	D	0.001	N	6,970	0.494	B	0.000	N
			SB	7,060	0.501	C	0.001	N	10,410	0.738	D	0.001	N
	B Street to SR- 94	223,400	NB	11,970	1.273	F	0.002	N	7,000	0.745	D	0.002	N
			SB	7,090	0.754	D	0.002	N	10,450	1.112	F	0.002	N
	SR-94 to Imperial Avenue	173,400	NB	9,270	0.789	D	0.002	N	5,420	0.461	B	0.001	N
			SB	5,490	0.467	B	0.001	N	8,090	0.689	C	0.002	N
	Imperial Avenue to SR- 75	170,300	NB	9,130	0.777	D	0.006	N	5,330	0.454	B	0.004	N
			SB	5,400	0.460	B	0.004	N	7,960	0.677	C	0.005	N

Source: Appendix K-1

Notes:

Bold text indicates a significant impact.ADT = average daily trips; LOS = level of service; S? = significant impact; V/C = volume to capacity; Δ = change in v/c

Level of Significance Prior to Mitigation

Construction and operation of the proposed project would have the potential to conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of a circulation system. Potentially significant impact(s) include:

Impact-TRA-1: Construction-Related Impacts along the 28th Street Roadway Segment Between National Avenue and Boston Avenue Under Existing Plus Project Construction.

Construction of the proposed project would worsen the existing LOS along 28th Street between National Avenue and Boston Avenue from an already unacceptable LOS E to LOS F. Therefore, impacts would be significant.

Impact-TRA-2: Construction-Related Impacts on Study Area Intersections Under Existing Plus Project Construction: Sampson Street/Harbor Drive (AM and PM Peak Hours) and I-5 SB On-Ramp/Boston Avenue (PM Peak Hour).

Construction of the proposed project would worsen the existing delay experienced by more than 2.0 seconds during peak hours at three study area intersections currently operating at LOS E or F, including Sampson Street and Harbor Drive (during the AM peak hour when the project reaches 90% of its construction traffic trip generation and during the PM peak hour when the project reaches 65% of its construction traffic trip generation) and I-5 SB on-ramp and Boston Avenue during the PM peak hour (when the project reaches 3% of its construction traffic trip generation). Therefore, impacts would be significant.

Impact-TRA-3: Operation-Related Impacts on Study Area Intersections Under Existing Plus Project Conditions: 15th Street/F Street (PM Peak Hour); 17th Street/G Street (PM Peak Hour); 19th Street/J Street (PM Peak Hour).

Operation of the proposed project would worsen the existing delay experienced during the peak hours at three study area intersections: 15th and Grape Streets by 15.8 seconds (LOS F) during the PM peak hour, 17th and G Streets by 28.0 seconds (LOS F) during the PM peak hour, and 19th and J Streets by 18.6 seconds (LOS F) during the PM peak hour, where a threshold of 1.0 second of additional delay applies to LOS F. Therefore, impacts would be significant.

Impact-TRA-4: Operation-Related Impacts on a Study Area Freeway Segment Under Existing Plus Project Conditions: NB I-5 Between Grape Street and First Avenue (AM Peak Hour).

Operation of the proposed project would worsen the V/C ratio by 0.012 along the segment of NB I-5 between Grape Street and First Avenue (currently operating at LOS E) during the AM peak hour, which would exceed the threshold of 0.010 for a segment operating at LOS E. This impact would be significant.

Mitigation Measures

For **Impact-TRA-1** and **Impact-TRA-2**:

MM-TRA-1: Transportation Demand Management Plan. Prior to commencing any construction or demolition activities, the project proponent shall provide a Transportation Demand Management (TDM) Plan to the San Diego Unified Port District and City of San Diego for approval that shall limit the number of construction worker trips that travel through the affected intersections during peak periods to 50 trips. The TDM plan shall incorporate TDM strategies to be implemented during construction, including, but not limited to:

- Implementation of a ride-sharing program to encourage carpooling among the workers.
- Adjustment of work schedules (e.g., arrive before 7 a.m. or after 9 a.m.; leave before 4 p.m. or after 6 p.m.) so that workers do not access the site during peak hours.
- Provision of offsite parking locations for workers outside of the area with shuttle services to bring them on site, as identified in **MM-TRA-7**.
- Provision of subsidized transit passes for construction workers.

For **Impact-TRA-3**:

MM-TRA-2: Signalization of the 15th Street/F Street Intersection. Prior to issuance of occupancy permits, the project proponent shall pay for or directly install a traffic signal at the intersection of 15th Street and F Street. Installation of the traffic signal will require approval from the City of San Diego. After installation is complete, the project proponent shall provide proof of signalization to the District for verification before issuance of the occupancy permits may occur.

MM-TRA-3: Signalization of the 17th Street/G Street Intersection. Prior to issuance of occupancy permits, the project proponent shall pay for or directly install a traffic signal at the intersection of 17th Street and G Street. Installation of the traffic signal will require approval from the City of San Diego. After the required payment or installation is complete, the project proponent shall provide proof of completion to the District for verification before issuance of the occupancy permits may occur.

MM-TRA-4: Restriping of Northbound Left-Turn Lane at 19th Street/J Street Intersection. Prior to the issuance of occupancy permits, the project proponent shall pay for or directly implement restriping the northbound left-turn lane into a northbound left-turn and through-share lane at the intersection of 19th Street and J Street. Restriping lanes will require approval from the City of San Diego. The project proponent shall provide proof of payment or completion to the District for verification before issuance of the occupancy permits may occur.

For **Impact-TRA-4**:

MM-TRA-5: Compliance with San Diego Forward: The Regional Plan, I-5 Operational Improvements. Prior to the issuance of occupancy permits, Caltrans shall install the following I-5 operational improvements for the segment of northbound I-5 between Grape Street and First Avenue, in compliance with *San Diego Forward: The Regional Plan* prepared by SANDAG (SANDAG 2015).

Level of Significance After Mitigation

Mitigation measure **MM-TRA-1** would help reduce potential significant impacts associated with construction traffic; however, because the extent to which construction traffic impacts will be reduced by the TDM plan cannot be quantified, it cannot be stated with certainty that the mitigation would reduce impacts to less-than-significant levels. Therefore, **Impact-TRA-1** and **Impact-TRA-2** would remain significant and unavoidable.

Mitigation measures **MM-TRA-2** through **MM-TRA-4** would reduce project-related impacts on the intersections of 15th and F Streets, 17th and G Streets, and 19th and J Streets to less-than-significant levels; however, because the timing and implementation of the necessary improvements at these

intersections are within the exclusive jurisdiction of the City of San Diego and not the District, the District cannot state with certainty that the improvements will be completed prior to an impact occurring. As such, **Impact-TRA-3** would remain significant and unavoidable.

Mitigation measure **MM-TRA-5** requires compliance with *San Diego Forward: The Regional Plan*, which includes a series of operational improvements along I-5 between I-15 and I-8, which would encompass the segment of NB I-5 between Grape Street and First Avenue (SANDAG 2015). However, these improvements are not scheduled until Year 2050 and are subject to budget availability and the discretion of Caltrans. At the moment, there is no program in place into which the project proponent could pay a fair share contribution toward the cost of such improvements. Therefore, because the timing and installation of the recommended improvements are within the exclusive jurisdiction of Caltrans and not the District, the District cannot state with certainty that the improvements will be completed prior to an impact occurring. As such, the impact along NB I-5 between Grape Street and First Avenue (**Impact-TRA-4**) would remain significant and unavoidable.

Threshold 2: Implementation of the proposed project would not conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

Impact Discussion

As described in Section 4.12.3.2, *Regional*, SANDAG is the lead agency for congestion management compliance for the San Diego region. In 2009, the San Diego region elected to be exempt from the state CMP and, since this decision, SANDAG has been abiding by 23 CFR 450.320 to ensure the region's continued compliance with the federal congestion management process. *San Diego Forward: The Regional Plan*, the region's RTP and SCS, meets the requirements of 23 CFR 450.320.

Therefore, to determine if the proposed project would conflict with an applicable congestion management program, the proposed project was reviewed for consistency with the Regional Plan, which is a land use and transportation planning document that discusses land use policy at a very general level. The Regional Plan mostly incorporates the land use policies of local jurisdictions and focuses on transportation infrastructure and management programs to support those policies. The proposed project proposes minor changes in the land use designations of the project site; however, these changes would not result in any conflicts with any land use policies. Additionally, aside from potential improvements associated with mitigation measures, the proposed project would not result in any changes to the existing transportation infrastructure. Moreover, the proposed project would not interfere with the policies or projects identified in the Regional Plan. Therefore, the proposed project would not conflict with an applicable congestion management program, and impacts would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not conflict with an applicable congestion management program, including, but not limited to, LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Impacts would be less than significant.

Threshold 3: Implementation of the proposed project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

Impact Discussion

The project is located approximately 1.8 miles to the southeast of the San Diego International Airport (SDIA) and is 2.0 miles east of Naval Air Station North Island. As discussed in Section 4.7, *Hazards and Hazardous Materials*, the project site is not within an SDIA Airport Safety Compatibility Zone; however, it is within Review Area 2 of the Airport Influence Area for SDIA. As further detailed in Section 4.7, the Federal Aviation Administration conducted an aeronautical study for the operational components of the proposed project, which determined that, with the implementation of specific conditions, the proposed project would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. While the Federal Aviation Administration has not yet completed a determination for the temporary use of a crane during construction, construction cranes are common throughout downtown San Diego, and are generally similar in height to the surrounding high-rise buildings. Therefore, the use of a crane to construct the market-rate hotel tower would not modify air traffic patterns for SDIA. Consequently, construction and operation of the proposed project would not result in a change in air traffic patterns or interfere with any air traffic flight paths or other airport operations. Impacts would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Impacts would be less than significant.

Threshold 4: Implementation of the proposed project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact Discussion

The project site would have one access point along Convention Way. The access point would be shared with an adjacent hotel (Hilton San Diego Bayfront Hotel), as well as service access to the SDCC. The project proposes to create two new driveways to access a planned parking structure, which would replace the three driveways at that current location. The relocation of the project driveways would not affect access to the adjacent hotel or SDCC because full access to both sites would continue to be provided.

Based upon review of the project site plan and conditions in the field by a qualified traffic engineer from Chen Ryan Associates, Inc. (Chen Ryan) in November 2016, the proposed driveway location is acceptable and sight distance at this driveway would be adequate; the driveway would also be designed in accordance with the City of San Diego's *Street Design Manual*.

The proposed hotel site would be bordered to the north by a single internal roadway that connects the project land uses. The internal roadway would provide access to a parking structure between the proposed hotel and lower-cost, visitor-serving hotel, and would offer approximately 263 onsite parking spaces. Access to the parking structure would be provided via two driveways on the north side of the structure.

Based upon an initial review of the project circulation plan by a qualified traffic engineer from Chen Ryan, potential conflict points between vehicular and bicycle/pedestrian traffic would occur at the two project driveway locations and within the pick-up/drop-off area. However, there are existing traffic control measures, including a crosswalk and pedestrian signage, that would be maintained under project conditions, and these potential conflicts are considered less than significant because the driveways would not interfere with the primary pedestrian and bicycle circulation paths in the project area and would not create a new hazardous condition in the area.

Consequently, the proposed project would not result in hazardous design features or incompatible uses. In addition to the preliminary evaluation by a qualified traffic engineer from Chen Ryan showing that the proposed project would not substantially increase hazards, all driveways that serve the project site would be designed in accordance with the City of San Diego's *Street Design Manual*, and, per the City's plan check process, final plans would require review and approval by the City's traffic engineer to ensure that the proposed project would not result in hazardous design features. Therefore, the proposed project would result in less-than-significant impacts related to hazardous design features or incompatible uses.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not substantially increase hazards due to a 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 is required.

Level of Significance After Mitigation

Impacts would be less than significant.

Threshold 5: Implementation of the proposed project would not result in inadequate emergency access.

Impact Discussion

During construction and operation, emergency access to the project site would be maintained along Convention Way. Construction activities may require temporary closures of a portion of Convention Way for short durations, but at least one lane would be provided at all times. If construction traffic control is required, flagging personnel would ensure that traffic congestion or blocked roads would not occur. Any temporary traffic control during construction would meet the requirements of the *California Manual on Uniform Traffic Control Devices* (Caltrans 2014). The proposed project would not involve any permanent changes to the emergency access of the project site or surrounding area. Impacts would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not result in inadequate emergency access. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Impacts would be less than significant.

Threshold 6: Implementation of the proposed project would conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Impact Discussion

Potential impacts related to pedestrian, bicycle, and transit circulation would be considered significant if the proposed project would conflict with the adopted policies, plans, or programs supporting alternative transportation. The proposed project would involve development of two hotels, expansion of a marina, and expansion of public access space at the waterfront. As described in Section 4.12.2.2, *Existing Transportation Conditions*, there are existing pedestrian, bicycle, and transit facilities adjacent to and in the vicinity of the project site. In addition, the Downtown Mobility Plan recommends that the existing Class I bicycle facility that runs adjacent to the project site along the Embarcadero Promenade be extended to Convention Way, Park Boulevard, and Harbor Drive.

The proposed project would not make any changes to roadways or other transportation-related facilities, such as pedestrian routes, bike lanes, or transit stops as identified in the Downtown

Mobility Plan, the City of San Diego Bicycle Master Plan, the City of San Diego Pedestrian Master Plan, and Riding to 2050: the San Diego Regional Bike Plan, that would permanently conflict with existing or planned facilities. Therefore, the proposed project would not conflict with any policies included in the aforementioned plans.

During construction of the proposed project, the Embarcadero Promenade fronting the project site would remain open but would temporarily be narrowed from 35 feet to 15 feet. However, for approximately 18 months during construction of the market-rate hotel tower lobby, which spans the entire width of the Embarcadero Promenade, pedestrian traffic would be re-routed along Convention Way. Therefore, the proposed project would result in a temporary significant impact on public access along the Embarcadero Promenade, which would decrease the performance of this existing pedestrian and bicycle facility (**Impact-TRA-5**). Consequently, implementation of the proposed project would decrease the performance of an alternative transportation facility.

Level of Significance Prior to Mitigation

The proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the safety of such facilities. However, the proposed project would result in temporary changes to the Embarcadero Promenade, which would decrease the performance of an alternative transportation facility. Potentially significant impact(s) include:

Impact-TRA-5: Temporary Closure of Embarcadero Promenade During Construction.

During construction of the proposed project, the portion of the Embarcadero Promenade fronting the project site would remain open, but would be narrowed temporarily from 35 feet to 15 feet. However, the Embarcadero Promenade would be closed for approximately 18 months during construction of the market-rate hotel tower lobby, which spans the entire width of the Embarcadero Promenade, and therefore would require pedestrian traffic to be re-routed. As such, the proposed project would result in a temporary significant impact on public access along the Embarcadero Promenade during construction.

Mitigation Measures

For **Impact-TRA-5**:

MM-TRA-6: Maintain Public Access Along Embarcadero Promenade During Construction.

The project proponent, in coordination with the District, shall ensure that public access is maintained along the Embarcadero Promenade during construction by providing reduced or replacement points of public access. The project proponent shall install and maintain clear wayfinding and public access signage in publicly visible locations (i.e., not posted inside the hotel) adjacent to and at the public entrances to the reduced or replacement public access areas.

Level of Significance After Mitigation

Implementation of mitigation measure **MM-TRA-6** would reduce **Impact-TRA-5** to a less-than-significant level because it will ensure that public access is maintained within the project site during construction, and the performance of the existing facility would not be decreased.

Threshold 7: Implementation of the proposed project would result in inadequate parking supply.**Impact Discussion****Construction**

The construction phase would experience up to 495 construction worker vehicles traveling to the site per day that would require parking. The project site would not be able to accommodate parking for that many vehicles due to onsite staging of materials and construction equipment, as well as the phasing of construction that would be occurring.

The lack of sufficient parking during construction would be a significant impact (**Impact-TRA-6**) and mitigation is required. Implementation of **MM-TRA-6** would require incentives for construction workers to use public transit and would require workers arriving by car to park in an offsite parking facility. It would also require the provision of offsite parking and a shuttle system.

In addition, existing parking would be removed from service once onsite grading and demolition activities begin (**Impact-TRA-6**). The permanent loss of parking is addressed under *Operation*. However, during the construction phase, **MM-TRA-6** would also require the provision of on-street signage to direct visitors to available parking facilities throughout the duration of the construction period. This would help reduce the impact from the loss of parking during construction, but the temporary loss of parking for waterfront visitors would remain significant and unavoidable.

Operation

Per the *Tidelands Parking Guidelines* (District 2001), the parking requirement for hotel uses is 0.5 space per room. Based on the 850 proposed hotel rooms, the project is required to provide 425 onsite parking stalls. The *Tidelands Parking Guidelines* do not assign parking rates for a lower-cost visitor-serving hotel, and there was a lack of available information for a similar hotel in the City of San Diego; however, the San Francisco Municipal Code provides parking rates of 0.0625 space per bed for hostels, which is the closest type of land use to the proposed lower-cost, visitor-serving hotel.¹ Based on the 565 beds proposed for the lower-cost visitor-serving hotel, 36 parking spaces are required. Marina land uses, which require 0.33 parking space per slip, would require an additional 21 parking spaces.

Table 4.12-20 summarizes the number of parking spaces the proposed project is required to provide to meet anticipated parking demand. As shown, the unadjusted parking requirement for the proposed project is 482 spaces.

¹ Like a hostel, the lower-cost visitor-serving hotel would provide dormitory-style sleeping arrangements.

Table 4.12-20. Unadjusted Parking Spaces Required

Land Use	Units	Rate	Min # of Auto Spaces (Base)
Hotel	850 Rooms	0.5/Room	425
Hostel	565 Beds	0.0625/Bed ¹	36
Marina	62 Slips	0.33/Slip	21
Total			482

Source: District 2001

¹ Rate from City of San Francisco Municipal Code.

Further adjustment factors were applied to the parking demand rate for the proposed project based on Tables 1 and 2 of the *Tidelands Parking Guidelines* (District 2001), which allow for adjustments to parking rates based on various factors such as proximity to transit, proximity to the airport, shared parking potentials, proximity to public waterfront amenities, displacement of existing parking, and other factors. Table 4.12-21 displays the unadjusted demand rate for a hotel, hostel, and marina land use, as well as the assumed adjustment factors used to develop the final adjusted parking demand rate. The adjustment factors are based on proposed project features as well as the proposed project location. As shown, adjusted parking requirements equal 472 spaces.

Table 4.12-21. Parking Rate Adjustments

Adjustment	Adjustment Reason	Percentage	Change (Spaces)
Parking Rate (Unadjusted)	Per Table 1 of the <i>Tidelands Parking Guidelines</i>	100%	482
Proximity to Transit	The proposed project is within 0.25 mile of the Gaslamp Quarter Trolley Station.	-12%	-58
Access to Airport	The proposed project would not have access to the airport.	0%	0
Shared Parking Potential	The proposed project does not intend to rely on outside parking options.	0%	0
Proximity to Public Waterfront Amenities for Public Access	The proposed project would be located along the waterfront and have direct access to the Embarcadero Promenade.	20%	96
Displacement of Existing Parking	The proposed project would not displace any existing parking.	0%	0
Existing Parking Shortfall/Surplus	Not applicable.	0%	0
Employee Trip Reduction Programs	The project proposes to park all employees off site.	0%	0
Dedicated Airport Shuttle Service	An airport shuttle is not proposed.	0%	0
Dedicated Water Transportation Service	The project site is served by a water taxi and the ferry	-10%	-48
Total Adjusted Rate			472

Moreover, with the recent developments in ride-share and transportation technology such as Uber and Lyft, the downtown area has experienced an overall decrease in parking demand for hotels and other visitor-serving uses over the past few years. These technologies and changes in travel patterns were not accounted for in the *Tidelands Parking Guidelines*, which was developed in 2001. Therefore, to gain a better understanding of the actual parking demand for hotels within the area, ACE Parking provided the total and average overnight parking demand for five similar hotels adjacent to the project site. Table 4.12-22 displays the hotels that were included in the study, their total number of rooms, the average overnight parking demand (based on Year 2015), and the correlating parking demand per room. The parking information provided by ACE Parking is included in Appendix K-1.

Table 4.12-22. Adjacent Hotel Parking Demand for 2015

Hotel	Number of Rooms	Average Overnight Parking Demand	Spaces Needed Per Room
Hilton San Diego Bayfront	1,190	314	0.26
Marriott Marquis San Diego	1,362	355	0.26
Manchester Grand Hyatt	1,625	364	0.22
Omni	511	78	0.15
Hard Rock	418	70	0.17
Total	5,106	1,182	0.23

Source: Appendix K-1

As shown in Table 4.12-21, the hotels adjacent to the project site experienced a parking demand rate of 0.23 space per hotel room during Year 2015. This is less than half of what is required by the *Tidelands Parking Guidelines*. Therefore, a subsequent parking analysis was performed for the project site using this lower parking demand rate. As shown in Table 4.12-23, the proposed project would be required to provide 253 parking spaces using the reduced hotel parking demand rate. Applying the parking rate adjustments as defined in Table 4.12-20 would reduce the parking requirements even further to 248 spaces (see Table 4.12-23).

Table 4.12-23. Unadjusted Parking Spaces Required: Reduced Hotel Parking Demand

Land Use	Units	Rate	Minimum # of Auto Spaces (Base)
Hotel	850 Rooms	0.23/Room	196
Hostel	565 Beds	0.0625/Bed ¹	36
Marina	62 Slips	0.33/Slip	21
Total			253

Source: District 2001

¹ Rate from City of San Francisco Municipal Code.

Table 4.12-24 displays the unadjusted demand rate for a hotel, hostel, and marina land use as well as the assumed adjustment factors used to develop the final adjusted parking demand rate. The adjustment factors are based on proposed project uses as well as the proposed project's location.

Table 4.12-24. Parking Rate Adjustments – Reduced Hotel Parking Demand

Adjustment		Percent	Change
Parking Rate (Unadjusted)	Per Table 1 of the Tidelands Parking Guidelines.	100%	253
Proximity to Transit	The proposed project is within 0.25 mile of the Gaslamp Quarter Trolley Station.	-12%	-30
Access to Airport	The proposed project does not have access to the airport.	0%	0
Shared Parking Potential	The proposed project does not intend to rely on outside parking options.	0%	0
Proximity to Public Waterfront Amenities for Public Access	The proposed project is located along the waterfront and has direct access to the Embarcadero Promenade.	20%	50
Displacement of Existing Parking	The proposed project would not displace any existing parking.	0%	0
Existing Parking Shortfall/Surplus	This will be determined via this parking analysis.	0%	0
Employee Trip Reduction Programs	The project proposes to park all employees off site.	0%	0
Dedicated Airport Shuttle Service	An airport shuttle is not proposed.	0%	0
Dedicated Water Transportation Service	Continued use of the existing water taxi.	-10%	-25
Total Adjusted Rate			248
Source: District 2001			

Based on the rates and methods outlined in the *Tidelands Parking Guidelines* (District 2001), the proposed project would have a parking demand of 472 spaces. The project proposes using a combination of valet and striped parking spaces to accommodate 263 onsite parking spaces and, as such, would result in a total parking deficit of 209 parking spaces during its highest demand period. Even if the project proponent could secure 110 parking spaces in the SDCC garage, which is uncertain at this time, the proposed project would be short 99 parking spaces. Therefore, the proposed project's parking demand would exceed its proposed onsite parking supply, and a significant impact related to inadequate parking supply would occur (**Impact-TRA-7**).

As displayed in Table 4.12-22, the parking demand at hotels in the immediate vicinity of the project site was observed to be below the rates contained in the *Tidelands Parking Guidelines* (0.23 space per room compared to 0.5 space per room). When using the lower hotel parking demand, the proposed project would require 248 onsite parking spaces, which would be accommodated by the project's proposed 263 spaces. However, this is being provided only for informational purposes, and to adhere to the District's standards, the EIR analysis bases the significance determination on the adopted methods outlined in the *Tidelands Parking Guidelines*. Therefore, as noted above, a significant impact related to inadequate parking supply would occur.

Level of Significance Prior to Mitigation

Implementation of the proposed project would result in inadequate parking supply. Potentially significant impact(s) include:

Impact-TRA-6: Insufficient Parking Supply During Construction. The construction phase would experience up to 495 construction worker vehicles traveling to the site per day that would require parking. The project site would not be able to accommodate parking for that many vehicles due to onsite staging of materials and construction equipment, as well as the phasing of construction that would be occurring. In addition, existing parking would be removed from service once onsite grading and demolition activities begin.

Impact-TRA-7: Insufficient Parking Supply During Operation. As proposed, the project would provide 263 onsite parking spaces through a combination of valet and striped spaces. Per the *Tideland Parking Guidelines*, the proposed project is required to provide an adjusted rate of 472 parking spaces. Therefore, the proposed project would result in a parking deficit of 209 spaces during its highest demand period. A significant impact on parking supply would occur.

Mitigation Measures

For **Impact-TRA-6:**

MM-TRA-7: Provide Offsite Parking and Shuttle Transportation and Require Incentives for Transit Use and Wayfinding Signage for Visitors. Prior to the commencement of any construction activity, the project proponent shall provide an offsite parking location at the R.E. Staite property at 2145 East Belt Street, San Diego, CA for construction workers and shall provide shuttle service from the offsite parking location to the project site and back. 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, the project proponent shall provide conspicuous on-street signage to direct waterfront visitors to available parking facilities throughout the duration of the construction period.

For **Impact-TRA-7:**

MM-TRA-8: Implement a Parking Management Plan that Provides Parking Management Strategies. Prior to the issuance of the certificate of occupancy for market-rate hotel operations, the project proponent shall submit a Parking Management Plan to the District for approval. Upon approval and during project operations, the project proponent shall provide a quarterly report on the Parking Management Plan to the District's Development Services Department, which shall be subject to verification by District staff. The project proponent shall implement the following parking management strategies and any other strategies identified in the Parking Management Plan to mitigate the projected parking deficiency:

- **Valet Parking** – Secure 209 parking spaces (Secured Parking) at one or more offsite parking lots and provide a valet service that allows guests to utilize the secured spots, in order to avoid overflow in the immediate surrounding parking areas. Prior to commencement of hotel operations, the project proponent will enter into a contract or agreement with a parking operator or equivalent entity securing the Secured Parking and provide the agreement to the District's Development Services Department. The agreement shall be updated and submitted to the District's Development Services Department on an annual basis to provide proof of maintaining said agreement.

Until a long-term parking solution is identified for the area, after project construction is complete, on January 15 of each year the project proponent shall submit an annual parking implementation report to the District's Development Services Department for its review, which shall include the following components:

- A specific peak parking implementation program, broken down into morning, afternoon, and evening timeframes, in its annual submittal.
- Evidence in the form of parking utilization counts that show that sufficient valet spaces are available to meet the project's overflow parking demand from the parking lot or valet vendor. The parking counts shall be conducted at times throughout the day on both weekdays and weekends, during both the summer and winter, and shall be compared to projected and actual valet use at the project site.
- The location of the lots available for valet use and the number of spaces available in each lot based upon recent parking utilization counts.
- The dates, times, and duration of any period the valet was closed due to no available parking spaces.

In the event that the District establishes a long-term parking program for the area, the project proponent shall contribute a fair share to the analysis, design, and construction and operating costs associated with the program.

- *Transportation Network Companies* – The project proponent shall coordinate with transportation companies (such as Lyft and Uber) and shall provide designated pick-up/drop-off locations to encourage hotel patrons to utilize this mode of transportation as an alternative to driving their personal vehicles.
- *Water Taxi* – The project proponent shall provide a direct path and wayfinding signage from the Water Taxi Landing to the hotel facilities, and provide brochures and other materials in the hotel lobbies to inform hotel guests of the water taxi service and the destinations that can be reached.
- *Bike Racks* – The project proponent shall provide bike racks to accommodate a minimum of 24 bicycle parking spaces on the project site or adjacent thereto on the Embarcadero Promenade to encourage employees/patrons to bike to the proposed project.
- *Bike Share Stations* – The project proponent shall coordinate with companies like DECOBIKE to ensure a bike share station is maintained within walking distance (approximately 1,000 feet) to the proposed project. If a third-party bikeshare service cannot be provided, the project proponent shall provide bikes for its guests to rent.
- *Public Transit* – On its website, the project proponent shall promote and encourage employees and patrons to utilize alternative modes of transportation as an alternative to driving their personal vehicles.
- *Public Transit Subsidies for Employees* – The project proponent shall provide reimbursement or subsidies for public transportation costs for all employees. The level of transit reimbursements and subsidies shall be based on the standards set forth by the California Air Pollution Control Officers Association resource document *Quantifying Greenhouse Gas Mitigation Measures* (August 2010) to achieve a reduction in project vehicle miles traveled by 20%.

- *Port of San Diego (formerly Big Bay) Shuttle* – The project proponent shall participate in the Port of San Diego Shuttle system as a condition precedent to issuance of a certificate of occupancy for the market-rate hotel or lower-cost visitor-serving hotel, whichever hotel is completed first. Participation may include: collection of fares, advertising, voluntary tenant participation, mandatory tenant participation at the time of issuance of coastal development permits for District tenant projects within the South Embarcadero, and other forms of participation as identified by the District.
- *Airport Shuttle* – The project proponent shall provide a shuttle to and from the airport for hotel guests.

Level of Significance After Mitigation

With implementation of **MM-TRA-7**, impacts related to the loss of parking during construction (**Impact-TRA-6**) would be reduced, but not to a level considered less than significant because existing parking at the project site would not be accessible by waterfront visitors.

With implementation of **MM-TRA-8**, impacts on permanent parking supply (**Impact-TRA-7**) would be reduced through the implementation of a parking management plan. However, given that a substantial deficit in the onsite parking supply would remain even with implementation of the mitigation measure and the benefits of the parking management plan cannot be quantified, impacts would remain significant and unavoidable.

4.13.1 Overview

This section describes the existing conditions and applicable laws and regulations for tribal cultural resources, followed by an analysis of the proposed project's potential to cause a substantial adverse change in the significance of a tribal cultural resource.

Recent legislation (Assembly Bill 52) amended CEQA to add another category of cultural resource: Tribal Cultural Resources. Tribal Cultural Resources are defined as "sites, features, places, and objects with cultural value to descendant communities or cultural landscapes; and sacred places including, but not limited to, Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines." These resources must be listed in the Native American Heritage Commission's (NAHC's) Sacred Lands File, included in or eligible for the California Register of Historical Resources (CRHR), included in a local register of historical resources, or be determined significant by the CEQA lead agency. This section summarizes the results of analysis undertaken to determine the proposed project's potential impact on tribal cultural resources.

Based on the analysis that follows, all impacts related to tribal cultural resources would be less than significant. No mitigation is required.

4.13.2 Existing Conditions

A records search at the South Coastal Information Center was conducted for the project area and 0.5-mile buffer around the project area to determine if tribal cultural resources are present within the project site. No tribal cultural resources that are 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 from the NAHC. No Sacred Lands were identified by the NAHC.

4.13.3 Applicable Laws and Regulations

4.13.3.1 State

California Environmental Quality Act and Public Resources Code Section 5024.1 (California Register of Historical Resources)

CEQA requires public agencies to evaluate the implications of their project(s) on the environment and includes significance 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 California Code of Regulations [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 National Register of Historic Places (NRHP) (PRC Section 5024.1(d)(1)).

The CRHR is very similar to the NRHP program. The CRHR 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 California Register of Historical Resources (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” (Tribe) as a Native American tribe located 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 when either 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 it 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 Section 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.”

4.13.3.2 Local

As a property under the jurisdiction of the District, the project site is not within the jurisdiction of the City of San Diego. Therefore, the proposed project is not subject to review and approval by the City of San Diego’s Historical Resources Board. The significance criteria outlined in the Historical Resources Guidelines of the City of San Diego’s *Land Development Manual* is not used to evaluate tribal cultural resources within the study area for the proposed project.

4.13.4 Project Impact Analysis

4.13.4.1 Methodology

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 project notification from any local Native American tribes. Additionally, the District has not received a specific request from a tribe for notification of the Fifth Avenue Landing project. Therefore, the impact analysis is based on the

cultural resources records search and the NAHC Sacred Lands File search conducted for the proposed project.

4.13.4.2 Thresholds of Significance

The following significance criteria for evaluation of tribal cultural resources are based on State CEQA Guidelines Appendix G and provide the basis for determining the significance of impacts associated with tribal cultural resources from implementation of the proposed project. The project would have a significant impact on tribal cultural resources if it would result in the following.

1. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - 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 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 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

4.13.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074.

Impact Discussion

As discussed above, based on a records search conducted at the South Coastal Information Center and a Sacred Lands File Search obtained from the NAHC, no tribal cultural resources that are listed in or eligible for listing in the CRHR or Sacred Lands file were identified on or within proximity to the project site. No tribes have contacted the District to request notification of projects under AB 52; therefore, tribal consultation was not conducted, and no tribal cultural resources were identified as the result of an AB 52 consultation process.

The project site and its immediate surroundings consist of harbor waters or fill land that has been entirely developed with buildings, paving, or park landscape. As such, due to the nature of the project site, the absence of recorded tribal cultural resources within or nearby the project site, and the lack of requested notification by tribes under AB 52, it is unlikely that significant tribal cultural resources would be encountered during construction of the proposed project. However, any potential tribal cultural resources inadvertently discovered during construction would be evaluated and protected in compliance with AB 52. Therefore, impacts would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

4.14.1 Overview

This section describes the existing utility and energy use 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 energy use.

Impacts on utilities and energy use would be significant if the proposed project were to (1) violate wastewater treatment requirements; (2) result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the proposed project; (3) result in insufficient water supplies being available to serve the proposed project; (4) generate solid waste in excess of the permitted landfill capacity or conflict with adopted policies or regulations; (5) result in the need for new or expanded utility, service, and energy system infrastructure (i.e., wastewater, water, stormwater, solid waste, and energy), the construction of which would result in significant physical impacts; or (6) result in the wasteful, inefficient, or unnecessary use of energy.

The information contained in this section is based on available documentation and technical studies prepared for wastewater and stormwater infrastructure. The Preliminary Sewer Study (Appendix L-1), prepared by Project Design Consultants in February 2017, analyzes the proposed project's effect on the existing sewer infrastructure and determines if there is a need to upsize the facilities. The Preliminary Drainage Report (Appendix I-2), prepared by Project Design Consultants in December 2016, identifies any critical issues during the preliminary design phase that need to be addressed as the stormwater drainage design moves forward. Also, because the proposed project is deemed a priority development project (PDP), a required Stormwater Quality Management Plan (SWQMP) was prepared in December 2016 to describe how the proposed project would minimize impacts on receiving water quality through the implementation of permanent best management practices (Appendix I-1). Project utility demand is based on a memorandum prepared by the Glumac in July 2017 (Appendix L-2).

Table 4.14-1 summarizes the significant impacts and mitigation measures discussed in this section.

Table 4.14-1. Summary of Significant Utilities and Energy Use 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: Construction of Utility Improvements Would Contribute to Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-	Implement MM-CUL-1 and MM-CUL-2 as described in Section 4.4, <i>Cultural Resources</i> ; MM-GEO-1 as described in Section 4.5, <i>Geology and Soils</i> ; and MM-HAZ-1 through MM-HAZ-4	Less than Significant	With the implementation of mitigation measures, ground-disturbing activities associated with the proposed utility improvements would result in less-than-significant impacts related to cultural

Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
GEO-2, and Impact-HAZ-1	as described in Section 4.7, <i>Hazards and Hazardous Materials</i> .		resources, geology and soils, and hazards and hazardous materials.
Impact-UTIL-2: Insufficient Sewer Capacity to Convey Project-Generated Wastewater	MM-UTIL-1: Upsize the Existing West Harbor Drive Trunk Sewer Main to Accommodate Project-Generated Wastewater	Less than Significant	With the implementation of the mitigation measure, sufficient sewer capacity would be available to serve the proposed project. Potential impacts would be reduced to less-than-significant levels.

4.14.2 Existing Conditions

The utility providers that service the project site are listed in Table 4.14-2. Each service and utility is described in further detail below.

Table 4.14-2. Utility Service Providers

Utility Service	Provider
Wastewater	City of San Diego Public Utilities Department (Wastewater Branch)
Water	City of San Diego Public Utilities Department (Water Branch)
Stormwater	Port of San Diego; City of San Diego Storm Water Department
Solid Waste	City of San Diego Franchise Waste Hauler (Allied Waste)/ Miramar and Sycamore Landfills
Electricity and Natural Gas	San Diego Gas and Electric (SDG&E)

4.14.2.1 Wastewater

Wastewater treatment service is provided to the project site by the Metropolitan Sewerage System, which is owned by the City of San Diego (City) and operated by the City of San Diego's Public Utilities Department's (PUD) Wastewater Branch. The Metropolitan Sewerage System serves the City's water customers as well as 12 cities and agencies with a service area of approximately 450 square miles and service population of approximately 2.2 million (PUD 2016a). The Metropolitan Sewerage System collects, treats, and disposes of approximately 180 million gallons per day (mgd) of wastewater. Representatives of these 12 cities and districts make up the Metropolitan Wastewater Joint Powers Authority (JPA), which serves as an advisory body to the City Council on the operation of the Metropolitan Sewerage System. Collectively, the wastewater collection and treatment system is known as the Metro System. Planned improvements will increase wastewater treatment capacity to serve an estimated population of 2.9 million through the year 2050. Nearly 340 mgd of wastewater will be generated by that year (PUD 2016b).

Three treatment plants treat wastewater generated in the Metro System, including the North City Water Reclamation Plant (NCWRP), South Bay Water Reclamation Plant (SBWRP), and the Point Loma Wastewater Treatment Plant (PLWTP). The total measured wastewater collected from the wastewater service area in 2015 was 190,313 acre-feet, while the total volume treated at these three facilities in 2015 was 179,620 acre-feet (PUD 2016a). 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. The PLWTP has a 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 (PUD 2016a). Wastewater at the PLWTP is treated to an advanced primary level, at which point it is discharged into the Pacific Ocean through a 4.5-mile-long ocean outfall.

Sewer infrastructure currently serving the project site, and the immediate vicinity includes a network of underground collector pipes, trunk lines, and force mains that convey wastewater to pump stations located throughout the PUD's Wastewater Branch service area. The project site is served by an 8-inch polyvinyl chloride (PVC) wastewater pipe that collects sewage from the project site and surrounding facilities within Marina Park via a 4-inch PVC force main in Marina Park Way. The 8-inch main transports wastewater to a 10-inch PVC sewer main in Convention Way that is then discharged into another 10-inch PVC sewer main in Park Boulevard. Wastewater infrastructure serving the existing Hilton San Diego Bayfront Hotel includes an 8-inch wastewater pipe that runs parallel to Park Boulevard. Ultimately, wastewater from both the existing San Diego Convention Center (SDCC) and the existing Hilton San Diego Bayfront Hotel is discharged to the 15-inch trunk sewer main on West Harbor Drive. The trunk sewer main transports wastewater to a large pump station (Pump Station 2), located at North Harbor Drive, and propels the wastewater to the PLWTP.

The existing onsite wastewater generation at the project site is approximately 4,922 gallons per day (gpd), or 1,796,696 gallons per year. This total includes wastewater from both existing landside and waterside operations at the project site. According to the Preliminary Sewer Study, the existing average flow rate entering the existing 10-inch PVC sewer main in Park Boulevard is 157,000 gpd; however, this total also includes wastewater from Marina Park, SDCC, and the Hilton San Diego Bayfront Hotel.

4.14.2.2 Water

Water service is provided to the project site by the PUD's Water Branch through agreements with the San Diego County Water Authority, which is a member agency of the Metropolitan Water District. The PUD serves more than 1.3 million people, delivering more than 200 million gallons per day or 224,000 acre-feet of water annually throughout an approximately 404-square-mile service area (PUD 2016a). The City's water system is made up of nine reservoirs that capture runoff from rainfall within local water sheds covering more than 900 square miles. In addition, the PUD maintains and operates three water treatment plants, more than 3,302 miles of water lines, 49 water pump plants, 90-plus pressure zones, and more than 200 mgd of potable water storage capacity in 32 standpipes, elevated tanks, and concrete and steel reservoirs (PUD 2016c). The City's nine reservoirs have a combined capacity of 569,021 acre-feet. The City relies heavily on purchased water from the County Water Authority, which is predominantly imported from Northern California (through the State Water Project) and the Colorado River. From 2011 to 2015, imported water represented 87% of the City's overall water supply (including recycled water, but excluding savings from water conservation) (PUD 2016a).

Future water demand and supply projections are required to be updated every 5 years with the adoption of an Urban Water Management Plan (UWMP). The City recently updated its UWMP to project water supply and demand through 2040. The 2015 UWMP was presented and adopted at a public hearing of the City Council on June 20, 2016. In the 2015 UWMP, water demand projections are reduced compared to the projections anticipated in the 2010 UWMP due largely to the City's ongoing implementation of conservation measures. For example, the 2015 UWMP projects that normal year demand for 2035 will be 273,748 acre-feet per year (AFY) as opposed to the 298,860 AFY projected in the 2010 UWMP (PUD 2016a). Estimated demand for 2040 would generally remain the same as 2035.

The City'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, who 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 for the City (2050 Regional Growth Forecast Update Series 13). Table 4.14-3 shows the City'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. The City'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	200,984	242,038	264,748	273,748	273,408
Demand	200,984	242,038	264,748	273,748	273,408
Difference	0	0	0	0	0
Single-Year Dry					
Supply	213,161	256,883	281,167	290,654	290,292
Demand	213,161	256,883	281,167	290,654	290,292
Difference	0	0	0	0	0
Multiple-Year Dry (First Year)					
Supply	213,161	256,883	281,167	290,654	290,292
Demand	213,161	256,883	281,167	290,654	290,292
Difference	0	0	0	0	0
Multiple-Year Dry (Second Year)					
Supply	200,610	241,581	264,338	273,228	272,888
Demand	200,610	241,581	264,338	273,228	272,888
Difference	0	0	0	0	0
Multiple-Year Dry (Third Year)					
Supply	208,665	251,402	275,139	284,412	284,058
Demand	208,665	251,402	275,139	284,412	284,058
Difference	0	0	0	0	0
Source: PUD 2016a, Tables 6-1 and 6-16.					

Current water use at the project site is accounted for in the City's 2015 UWMP. The project site currently consists of a parking lot, the Water Transportation Center (WTC) ticket booth, a second parking lot serving as truck storage and ancillary parking for the SDCC, a temporary mobile trailer office, public walkway, and local access routes that include the intersection of Convention Way and Marina Park Way. Existing daily water use at the project site is approximately 4,922 gpd, or approximately 1,796,696 gallons per year. 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 (75% developed) that drains into the Bay (Project Clean Water 2016). In addition to bay waters, the main hydrologic feature of the watershed closest to the project site is Switzer Creek; however, this creek would not receive any stormwater flows from the project site and is not discussed further.

A stormwater drainage system, managed by the City of San Diego Stormwater Department, currently exists on the project site. Stormwater flow from the project site is currently carried through three storm drains that ultimately drain into the Bay. Existing onsite drainage facilities consist of several underground storm drain systems. Only one of the systems (a 15-inch storm drain) discharges onsite drainage from a portion of the existing parking lot. This area drains southwesterly towards a cross gutter on Marina Park Way, which combines with offsite flows before being intersected in an inlet tied to the existing 15-inch storm drain line. The 15-inch storm drain heads east (approximately 172 feet) and has an outfall directly into San Diego Bay, where onsite and offsite flows are discharged. The rest of the project site drains as overland flow into the Bay.

4.14.2.4 Solid Waste

Solid waste generated at the project site is collected by a City of San Diego franchised waste hauler (Allied Waste) and transported to a local landfill. The waste hauler must be City-approved per San Diego Municipal Code Section 66.0101. City-approved waste haulers are allowed to dispose of municipal solid waste (MSW) at any of the landfills in San Diego County. Currently, there are 10 companies that provide waste removal on behalf of the City (City of San Diego 2017).

San Diego County has four active landfills that accept solid waste: Miramar, Sycamore, Otay Annex, and Borrego Springs landfills. Table 4.14-4 shows the landfills' permitted remaining capacities and estimated remaining site lives. 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	Estimate of Remaining Site Life
Miramar Landfill	11,600,000 tons	2030
Sycamore Canyon Landfill	39,608,998 cubic yards	2042
Otay Annex Landfill	24,514,904 cubic yards	2028
Borrego Landfill	111,504 cubic yards	2046
Source: CalRecycle 2016, City of San Diego 2016		

Because the Miramar 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 Sycamore Canyon Landfill, Otay Annex Landfill, and/or Borrego Landfill as well. The disposal rate at the Miramar Landfill is approximately 910,000 tons of solid waste per year, and is projected to reach full capacity in 2030. Approximately 3,900 tons of waste is accepted on weekdays, and lesser amounts on weekends (City of San Diego 2017). Other large municipal landfills within the County include Sycamore Canyon with a remaining capacity of 39,608,998 cubic yards, Otay Annex Landfill with a remaining capacity of 24,514,904 cubic yards, and Borrego Landfill with a remaining capacity of 114,504 cubic yards. Solid waste collection would be rerouted to any of these landfills once Miramar Landfill is closed.

In an effort to develop and evaluate options for managing solid waste disposal needs in San Diego through the year 2045, the City initiated the Long-Term Resource Management Options Strategic Plan (LRMOSP) in 2007. Phase II of the LRMOSP concluded that maximizing the capacity at Miramar Landfill and extending its useful life by approximately 24 additional years would provide revenue streams for the longest period of time (BAS Team 2012, City of San Diego ESD 2012). The implementation phase, Phase III of the LRMOSP, will evaluate which of the system configurations or derivative of the configurations identified within Phase II of the LRMOSP will be pursued.

Diversion rates are used to report solid waste disposal in the City and to address Assembly Bill (AB) 939 recycling goals, which requires 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*). According to CalRecycle's 2014 Jurisdiction Diversion/Disposal Rate Detail for San Diego, the City meets its target employment disposal rate of 15.8 pounds per person per day with an annual rate of 10.4 pounds per person per day (CalRecycle 2013). Projects that generate a large amount of solid waste (over 1,500 tons per year) are required to prepare solid waste reduction and recycling plans, which will help alleviate the load on the existing landfills servicing the City (City of San Diego Development Services Department 2016). The project site's existing solid waste generation totals 851 pounds per day (296 pounds of disposable waste and 555 pounds of recyclable waste), or approximately 155.3 tons per year.

4.14.2.5 Energy

California has a diverse portfolio of energy resources that produced 2,335.5 trillion British thermal units¹ (BTUs) in 2012.² Excluding offshore areas, the state ranked third in the nation in crude oil production in 2012, producing the equivalent of 1,143.8 trillion BTUs. The state also ranked fourth in the nation in conventional hydroelectric generation (23,755 megawatt hours [MWh]) and first in the nation for net electricity generation from renewable resources. Other energy sources in the state include natural gas (277.7 trillion BTUs), nuclear (193.9 trillion BTUs), and biofuels (24.3 trillion BTUs) (U.S. Energy Information Administration 2014).³

According to the U.S. Energy Information Administration (2014), California consumed approximately 7,612 trillion BTUs of energy in 2012. Per capita energy consumption (i.e., total energy consumption divided by the population) in California is among the lowest in the country, with 201 million BTU in 2012, which ranked 49th among all states. Natural gas accounted for the majority of energy consumption (32%), followed by motor gasoline (22%), distillate and jet fuel (14%), interstate electricity (11%), and nuclear and hydroelectric power (6%), with the remaining 15% coming from a variety of other sources (U.S. Energy Information Administration 2014). The transportation sector consumed the highest quantity of energy (38.5%), followed by the industrial and commercial sectors.

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 9 to 15% over the next decade (2015–2025) (California Energy Commission 2014).

San Diego County is served by San Diego Gas and Electric (SDG&E), which provides energy service to over 3.4 million customers (i.e., 1.4 million accounts) in the 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 the higher summer temperatures drive increased demand for air-conditioning. In contrast, natural gas loads are higher in the winter because the colder temperatures drive increased demand for natural gas heating.

In 2014 (most recent year for which California Renewables Portfolio Standard [RPS] data are available) more than 36% of the electricity SDG&E supplied was from renewable sources, compared to less than 1% in 2002 (CPUC 2016). Over the last 3 years, SDG&E customers have reduced their electricity use by more than 911 million kilowatt hours (kWh) and their gas usage by more than 1.8 million therms (Sempra Energy Company 2014).

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 2012 data are the most recent available at the U.S. Energy Information Administration website, at http://www.eia.gov/state/seds/sep_prod/pdf/P5.pdf. Accessed on October 20, 2016.

³ No coal production occurs in California; however, imported coal made up approximately 6% of California's energy mix as of 2015. SDG&E, the energy provider for the San Diego region, does not have any coal in its energy mix as of 2015 (California Energy Commission 2016).

The existing electricity and natural gas usage at the project site is approximately 1.3 million kWh per year and 24,020 therms per year, respectively. These totals include energy use for both existing landside and waterside operations.

4.14.3 Applicable Laws and Regulations

4.14.3.1 Federal

Energy

Energy Policy Act of 2005

The Energy Policy Act of 2005 was intended to establish a comprehensive, long-term energy policy and is implemented by the U.S. Department of Energy. The Energy Policy Act addresses energy production in the U.S., including oil, gas, coal, and alternative forms of energy, and energy efficiency and tax incentives. Energy efficiency and tax incentive programs include credits for the construction of new energy-efficient homes, production or purchase of energy-efficient appliances, and loan guarantees for entities that develop or use innovative technologies that avoid the production of greenhouse gases (GHGs).

4.14.3.2 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 water supply assessments 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 water supply assessment 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. Because the District is not a city or county government, California Water Code Section 10910 does not apply to the proposed project, and a water supply assessment is not required.

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, the main component of which implemented mandatory commercial recycling by certain businesses and public entities. See Section 4.14.3.3, *Local*, for a discussion about how San Diego is implementing the requirements of AB 939.

Energy

Senate Bill 350 (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) an RPS of 50% and (2) a doubling of efficiency for existing buildings.

Assembly Bill 1493, Pavley Rules (2002, Amendments 2009, 2012)

Known as Pavley I, AB 1493 provided the nation's first GHG standards for automobiles. AB 1493 required the California Air Resources Board (ARB) 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* [ACC] measure) was adopted for vehicle model years 2017–2025 in 2012. Together, the two standards are expected to increase average fuel economy to roughly 54.5 miles per gallon in 2025. The increase in fuel economy will help lower the demand for fossil fuels.

Senate Bills 1078/107/X 1-2, Renewables Portfolio Standard and Renewable Energy Resources Act (2002, 2006, 2011)

SBs 1078 and 107, California's RPS, 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 California Energy Commission (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 2013, SDG&E's renewable procurement was 23.6%. As noted above, SB 350 increased the RPS to 50% for 2030.

California Code of Regulations, Title 20 and Title 24, Part 6.

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 to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

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.

California Energy Code

Title 24, Part 6 of the California Code of Regulations (24 CCR 6) 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.

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.

4.14.3.3 Local

All Utilities

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. 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. 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.

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.

Wastewater

City of San Diego Sewer Design Guide

When planning and designing wastewater facilities, the City Wastewater Branch follows the guidance and design policies of the *Sewer Design Guide* (2004), which summarizes and outlines relevant City policies, applicable codes, and engineering and operational practices and procedures necessary to establish a safe and efficient wastewater collection system. This document provides guidance for the City to design and maintain sewer facilities such as pump stations, gravity sewers, force mains, and associated wastewater appurtenances.

Water

San Diego County Water 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 acre-feet of water annually, must prepare, update, and adopt a UWMP at least once every 5 years. This law applies to the San Diego County Water Authority. 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. The San Diego County Water Authority 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.

City of San Diego'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 acre-feet of water annually, must prepare, update, and adopt a UWMP at least once every 5 years. This law applies to the City of San Diego, which is a member agency of the San Diego County Water Authority. The City prepared the 2015 UWMP to meet the State's requirements under the California Water Code and comply with the California Urban Water Management Planning Act. The plan provides information on the City's current and future water demands and supplies, discusses the water resources challenges that the City faces, and summarizes the major water resources initiatives that the City has proactively taken to ensure a safe, reliable water supply for its water customers. Specifically, the 2015 UWMP details the City's water system, water demands, sources of water supplies, water conservation efforts, climate change impacts, energy intensity, water shortage contingency planning, and projected water supply reliability during normal, dry, and multiple-year drought conditions. Availability of imported water and regional water demands and conservation were coordinated with the San Diego County Water Authority, the wholesale water provider for the City. To prepare the City's water demand forecast, coordination with SANDAG was necessary to obtain the most recent demographic projections for the City (2050 Regional Growth Forecast Update Series 13, released in September 2013). The 2015 UWMP was presented and adopted at a San Diego City Council public hearing on June 20, 2016.

Solid Waste

San Diego City Council Policy 900-16

Although the project site is within the District's jurisdiction, solid waste is collected and processed by the City of San Diego franchised waste haulers. Consequently, City policies would apply to the collection and processing of solid waste generated by the proposed project.

Construction waste makes up approximately 35% of the waste entering the Miramar Landfill. A majority of this waste comprises recyclable or reusable materials. In 2004, San Diego's Mayor and City Council enacted Council Policy 900-16, Construction & Demolition (C&D) Material Recycling, expressing the City's commitment to recycling C&D waste as an integral part of the City's comprehensive solid waste management strategy. The policy outlines the following principles for private industry.

1. Businesses, organizations, and contractors are encouraged to facilitate as much waste diversion from landfills as possible through recycling, waste reduction, and reuse.
2. Demolition, construction, and renovation project proponents should evaluate the potential for maximizing waste diversion through recycling, waste reduction, and reuse. Diversion plans should be adequately communicated with all contractors and subcontractors.
3. Diversion goals should be 100% diversion of inert materials (concrete, rock, asphalt, dirt, etc.) and at least 50% diversion of all remaining materials by weight if mixed C&D recycling facilities are available, or as much as feasible through source separation of recyclable materials if a mixed C&D facility is not available.
4. Businesses, organizations, and contractors should purchase products made from recycled materials to the maximum extent possible.

City of San Diego Construction and Demolition Debris Deposit Ordinance

On July 1, 2008, the C&D Debris Deposit Ordinance took effect. The ordinance requires that the majority of construction, demolition, and remodeling projects requiring building, combination, and demolition permits pay a refundable C&D Debris Recycling Deposit and divert at least 65% of their debris by recycling, reusing, or donating usable materials. The ordinance is designed to keep C&D materials out of local landfills and ensure they get recycled.

San Diego City Council Resolution No. R-308657

On December 31, 2013, the San Diego City Council passed City Council Resolution No. R-308657 to adopt a zero waste objective by 2040 for the City of San Diego. Through the passage of the resolution, the City of San Diego adopted a Zero Waste objective for the City with an initial goal of diverting 75% of waste generated in the City from landfill disposal by 2020 and a goal of Zero Waste by 2040. This would occur through the elimination of waste from landfill disposal and a diversion of recyclable materials to reprocessing into usable forms with minimal transport, energy use, and harm to society and the environment. In addition, Resolution No. R-308657 directed the City's Environmental Services Department to develop a Zero Waste Plan in 2014 that establishes a framework for, and provides guidance in, the City's planning and decision-making process so as to achieve the City's Zero Waste objective.

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.

Long-Term Resource Management Options Strategic Plan

The LRMOSP is a planning process initiated by the City of San Diego in 2007 to develop and evaluate options for managing solid waste disposal needs in San Diego through the year 2045. Miramar Landfill, the City of San Diego's only landfill, is anticipated to close under current conditions and projections in 2030. The LRMOSP assesses the City's current disposal system capabilities, projects future solid waste management demands, and presents long-term options for consideration by City staff and elected officials.

The LRMOSP is a three-phase process. Phase I consisted of a system analysis, regional demand and capacity analysis, and identification and screening of options. Phase II provides a review of the City's existing diversion programs and disposal system, and an update of future disposal demands; evaluates options to meet disposal demand after diversion programs; identifies potential system configurations; evaluates potential City roles in future solid waste management systems; provides a financial analysis for maintaining the status quo or implementing various system configurations; identifies potential revenue opportunities; and provides implementation strategies for each of the five identified system configurations. Phase III will recommend a specific strategy and configuration system, including a detailed implementation plan.

4.14.4 Project Impact Analysis

4.14.4.1 Methodology

Impacts on utilities (wastewater, water, stormwater, solid waste, and energy) as a result of implementation of the proposed project 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. 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 the 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 daily average of approximately 186 construction workers on the site. Existing employment at the project site is only 1 employee per day. Long-term employment under the proposed project is anticipated to reach a total of 610 jobs on site, including 600 full time employees (FTE) to operate the proposed hotel, 9 FTE to operate the low-cost visitor serving hotel, and 1 FTE to operate the Marina. Specific methods for analysis of each utility service are provided below.

Wastewater

Impact assessments on 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. To calculate

the existing wastewater generation at the site, usage from utility bills were reviewed for the site. To be conservative, it was assumed that onsite water use would be discharged to the sanitary sewer system at a 1:1 ratio, which would not take into account evaporation or percolation for outside water use. As a result, the existing onsite wastewater generation was calculated at approximately 4,922 gpd, or 1,796,696 gallons per year. In addition to the existing onsite wastewater generation, the existing overall average daily flow entering the 15-inch Harbor Drive trunk sewer was obtained to determine whether the proposed project would require the construction of new or expanded wastewater facilities to accommodate project-related wastewater. To determine the existing overall average daily flow, monitoring meters were installed at the downstream side of the existing 10-inch PVC sewer main in Park Boulevard (southwest of West Harbor Drive) just prior to its terminus at West Harbor Drive. Metering in this location allows the flow entering the 15-inch Harbor Drive trunk sewer from the existing 10-inch sewer main on Park Boulevard to be isolated and accurately measured. Similar to existing conditions, it was assumed that onsite water use would be discharged into the sanitary sewer system at a ratio of 1:1. The method for calculating the future water demand at the project site is provided in the water demand methodology discussion below. The Preliminary Sewer Study (Appendix L-1) evaluated whether the increase in project-related wastewater generation would require new or expanded wastewater facilities. Table 4.14-5 provides the projected daily and annual wastewater generation for the proposed project.

Table 4.14-5. Projected Wastewater Generation for the Proposed Project

	Waterside		Landside ¹		Total	
	Daily	Annual	Daily	Annual	Daily	Annual
Gallons	16,452	6,005,064	124,610	45,482,800	141,062	51,487,864

Source: Appendix L-2.

¹ Includes wastewater generated by the proposed market-rate hotel tower, lower-cost visitor serving hotel, retail uses, and WTC.

Water

Impacts on 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 water supply assessments for certain projects subject to CEQA. However, because the District is not a city or county government, California Water Code Section 10910 does not apply to the proposed project, and a water supply assessment is not required.

The existing water use for the site was determined through the review of utility bills, which indicated an average daily water use of 4,922 gallons, or 1,796,696 gallons annually. Converting gallons to acre-feet, the existing annual water use for the project site is approximately 5.5 AFY. The future water demand for the landside components of the proposed project, including proposed market-rate hotel tower, lower-cost visitor serving hotel, retail uses, and WTC, was calculated based on median data from the Energy Star Portfolio Manager, which identifies indoor water consumption rates of 55 gallons per square foot per year and/or 102 gallons per room per day. Based on these values, indoor water use was calculated for each rate and the average was taken to estimate the annual volume of water use anticipated for the proposed project. Projections for the expanded marina water usage (excluding existing marina water use) were calculated based on a direct lineal

relationship between existing water usage and total existing slip length to the proposed new slip length upon completion of Phase II of the proposed the marina expansion (6,470 feet proposed/1,490 feet existing = 4.34, or 434%). Regarding exterior irrigation, water consumption from municipal water averages approximately 0.222 gallons per square foot of landscaping per month (Appendix L-2). 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

	Waterside		Landside ¹		Irrigation ²		Total	
	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual ³
Gallons	16,452	6,005,064	124,610	45,482,800	959	350,008	142,021	51,837,872

Source: Appendix L-2.

¹ Includes water demand for the proposed market rate hotel tower, lower-cost visitor serving hotel, retail uses, and WTC.

² Based on a total landscaped area of approximately 131,324 square feet.

³ Converting gallons to acre-feet, the total annual projected water demand for the proposed project is approximately 159 AFY.

Storm Drainage

Impacts associated with storm drainage would occur if the proposed project would require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. A Preliminary Drainage Report (Appendix I-2) was prepared to outline and evaluate any existing drainage issues and identify necessary improvements to accommodate project-related stormwater runoff. The drainage report includes a peak 100-year storm event hydrologic analysis and recommendations about whether project-related stormwater runoff would require the construction of new or expanded storm drainage facilities. The environmental effects of any new or expanded facilities were then analyzed.

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 site (landside and waterside) was provided by the project proponent, who indicated that the existing landside and waterside operations at the site generate approximately 296 pounds per day of disposable waste and 555 pounds per day of recyclable waste. This results in an existing annual solid waste generation of approximately 108,040 pounds of disposal waste and 202,575 pounds of recyclable waste. Solid waste projections for the expanded marina (excluding existing marina solid waste generation) were calculated based on a direct linear relationship between existing solid waste generation and total existing slip length to the proposed new slip length upon completion of Phase II of the proposed marina expansion. Solid waste projections for the proposed market-rate hotel tower, lower-cost visitor serving hotel, and other landside components of the proposed project were based on waste generation rates for various types of uses. All solid waste calculations for the proposed project are provided in Appendix L-2. Summaries of the projected daily and annual solid waste generation for the waterside and landside components of the proposed project are provided in Tables 4.14-7 and 4.14-8, respectively, below.

Table 4.14-7. Projected Daily and Annual Solid Waste for Waterside Components

	Daily			Annual		
	Total	Disposable Waste	Recyclable Waste	Total	Disposable Waste	Recyclable Waste
Pounds	2,553	895	1,658	931,845	326,675	605,170
Tons	1.28	0.45	0.83	465.92	163.34	302.59

Source: Appendix L-2.

Table 4.14-8. Projected Daily and Annual Solid Waste for Landside¹ Components

	Daily				Annual			
	Total	Disposable Waste	Recycle Waste	Compost Waste	Total	Disposable Waste	Recycle Waste	Compost Waste
Pounds	13,631	5,811	5,074	2,746	4,975,315	2,121,015	1,852,010	1,002,290
Tons	6.82	2.91	2.54	1.37	2,487.66	1,060.51	926.01	501.15

Source: Appendix L-2.

¹ Includes solid waste generated by the proposed market-rate hotel tower, lower-cost visitor serving hotel, retail uses, and WTC.

Energy

Energy impacts would occur if the proposed project would result in the wasteful, inefficient, or unnecessary use of energy. Energy impacts would also occur if the proposed project would require or result in the construction of new energy system infrastructure or the expansion of existing infrastructure, the construction of which could cause significant environmental effects. The energy analysis for the proposed project evaluates the following sources of energy consumption associated with existing conditions and the proposed project.

- Short-term construction—gasoline and diesel consumed by vehicles and off-road construction equipment.
- Operational power—electricity and natural gas consumed by buildings, lighting, air conditioning, and shore power.
- Operational on-road vehicles—gasoline and diesel consumed by personal automobiles and delivery trucks.
- Operational marine vessels—diesel consumed by marine vessels.

Existing electricity usage at the project site is based on detailed consumption data (i.e., kilowatt-hours) from the project proponent, which was determined from existing utility bills. The existing electricity usage at the site, which includes both landside and waterside operations, is approximately 3,678 kWh per day, or 1,342,558 kWh per year. Existing natural gas usage at the project site is based on detailed consumption data (i.e., therms) from the project proponent, which was also determined from existing electricity bills. The existing natural gas usage at the site, which includes both landside and waterside operations, is approximately 66 therms per day, or 24,020 therms per year. Electricity and natural gas projections for the expanded marina (excluding existing marina energy use) were calculated based on a direct lineal relationship between existing electricity

and natural gas use and total existing slip length to the proposed new slip length upon completion of Phase II of the proposed marina expansion. Electricity and natural gas projections for the landside components of the proposed project, which include the proposed market-rate hotel tower, lower-cost visitor serving hotel, retail uses, and WTC, were both calculated by the Energy Star Target Finder tool (Appendix L-2). The Energy Star Target Finder tool compared input building characteristics to utility bill data from actual buildings of a similar type in similar climates. The projected daily and annual electricity and natural consumption for the proposed project is provided in Table 4.14-9 below.

Table 4.14-9. Projected Daily and Annual Energy Consumption for the Proposed Project

	Waterside		Landside ¹		Total	
	Daily	Annual	Daily	Annual	Daily	Annual
Electricity (kWh)	12,294	4,487,207	31,383	11,454,752	43,677	15,941,959
Natural Gas (therms)	220	80,282	1,185	432,663	1,405	512,945

Source: Appendix L-2.

¹ Includes electricity and natural gas use for the proposed market-rate hotel tower, lower-cost visitor serving hotel, retail uses, and WTC.

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 the implementation of the proposed project. The determination of whether a utilities and energy use 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. Wastewater: (a) exceed wastewater treatment requirements of the Regional Water Quality Control Board (RWQCB); (b) result in a determination by the San Diego PUD that there is inadequate wastewater treatment capacity to serve the project's projected demand in addition to the PUD's existing commitments; or (c) require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
2. Water: (a) result in insufficient water supplies from existing entitlements and resources, necessitating new or expanded entitlements; or (b) require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
3. Stormwater: require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
4. Solid Waste: (a) be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or (b) not comply with federal, state, and local statutes and regulations related to solid waste.

5. Energy: (a) result in the wasteful, inefficient, or unnecessary use of energy; or (b) require or result in the construction of new energy system infrastructure or the expansion of existing infrastructure, the construction of which could cause significant environmental effects.

The District does not currently have specific criteria for quantifying impacts related to solid waste generation and disposal. Solid waste is collected and processed by the City of San Diego franchised waste haulers; therefore, City policies would apply to the collection and processing of solid waste generated by the proposed project. Consequently, the following City criterion is used to evaluate solid waste impacts related to Threshold 4 above:

- Projects that include the construction, demolition, or renovation of 1,000,000 square feet or more of building space would generate approximately 1,500 tons of waste or more and are considered to have direct impacts on solid waste facilities.

4.14.4.3 Project Impacts and Mitigation Measures

Threshold 1: Implementation of the proposed project:

a) Would not exceed wastewater treatment requirements of the RWQCB;

b) Would not result in a determination by the San Diego PUD that there is inadequate wastewater treatment capacity to serve the project's projected demand in addition to the PUD's existing commitments;

c) Would require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Discussion

A Preliminary Sewer Study (Appendix L-1) was prepared to determine the future wastewater flows associated with the proposed project and to identify whether upgrades would be needed to the existing system. 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 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, utility installation, and construction of above-ground facilities and buildings. Additionally, the proposed marina expansion would involve the construction of new piles, a dock, and a breakwater. Construction of the proposed project is anticipated to require a daily average of approximately 186 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 the waste disposed at an

appropriate facility in accordance with RWQCB regulations. No wastewater treatment facilities, infrastructure improvements, or other expansions would be required as a result of project construction.

Construction of the landside components of the proposed project would require upgrades to various onsite and offsite sewer lines and other sewer infrastructure to accommodate the increased wastewater generated by the proposed project. As these improvements are needed to accommodate project-related wastewater, they are included as part of the proposed project. The Preliminary Sewer Study determined that a 12-inch sewer main is required to convey the total post development peak flow from Marina Park, SDCC, and the project site to the Harbor Drive trunk sewer. As a result, the existing 8-inch PVC sewer line that runs through the project site would be abandoned either in place and/or removed as necessary. The sewer main would be relocated into the center of Convention Way, resulting in approximately 550 linear feet of new 12-inch sewer line. Additionally, the existing 10-inch sewer line within Convention Way would be upsized to a 12-inch PVC main from the force main manhole to West Harbor Drive, for a total of approximately 1,500 linear feet. The proposed new 12-inch sewer line would connect to the existing 15-inch trunk sewer located west of the intersection of West Harbor Drive and Park Boulevard, adjacent to SDCC. The existing 15-inch trunk sewer located west of the intersection of West Harbor Drive and Park Boulevard would need to be upsized to accommodate wastewater generated by the proposed project. Construction associated with upsizing of the existing 15-inch trunk sewer, as required by **MM-UTIL-1**, is discussed under the analysis of operational impacts below.

Potential impacts associated with construction of the proposed project, including the proposed sewer improvements, are analyzed throughout the applicable sections of this EIR, including Sections 4.1, *Aesthetics and Visual Resources*; 4.2, *Air Quality and Health Risk*; 4.4, *Cultural Resources*; 4.5, *Geology and Soils*; 4.6, *Greenhouse Gas Emissions and Climate Change*; 4.7, *Hazards and Hazardous Materials*; 4.8, *Hydrology and Water Quality*; 4.10, *Noise and Vibration*; and 4.12, *Transportation, Circulation, and Parking*. The proposed sewer improvements would not result in impacts related to aesthetics and visual resources, air quality and health risk, GHG emissions and climate change, hydrology and water quality, noise and vibration, or transportation, circulation and parking.

As discussed in Section 4.4, *Cultural Resources*, there is a potential that historical archaeological resources, specifically CA-SDI-15118H, could be unearthed during project construction, including removal of the existing abandoned sewer lines and construction of the proposed sewer improvements. As such, the proposed project could significantly impact CA-SDI-15118H if portions of the site were unearthed during construction of the proposed sewer improvements (**Impact-CUL-1**). Additionally, Old Paralac Deposits occur underneath the entire project site and are designated as having a high sensitivity for paleontological resources. As such, ground-disturbing activities during project construction have the potential to significantly affect highly sensitive paleontological resources due to excavation that would extend 10 feet or more below ground surface and would include the movement of more than 1,000 cubic yards of soil (**Impact-CUL-2**).

In addition, as discussed in Section 4.5, *Geology and Soils*, the proposed project would include excavation of soil and construction of structures and sewer improvements within areas of high liquefaction and unstable soil. These activities could loosen soil compaction and otherwise disturb the existing geologic conditions, thus exacerbating the potential for liquefaction, lateral spreading, and soil collapse to occur, if compliance with regulations does not occur (**Impact-GEO-1** and **Impact-GEO-2**).

Furthermore, as discussed in Section 4.7, *Hazards and Hazardous Materials*, there is a potential that contaminated soils may be encountered during construction and excavation activities for the proposed project, including the proposed sewer improvements. In the event contaminated soils are encountered, there is a potential that hazardous materials could be released into the environment and the existing hazardous conditions could be exacerbated (**Impact-HAZ-1**).

Overall, these significant construction-related impacts, while not specifically associated with the proposed sewer improvements, would be more severe with these infrastructure upgrades than without. Therefore, the proposed sewer improvements would contribute to significant construction-related impacts (**Impact-CUL-1**, **Impact-CUL-2**, **Impact-GEO-1**, **Impact-GEO-2**, and **Impact-HAZ-1**) (**Impact-UTIL-1**).

Construction staging at the offsite R.E. Staite staging site would not result in wastewater impacts, as this site is currently used for staging construction equipment and would not expand or construct utilities.

Operation

The proposed project does not involve industrial operations or any other uses that would generate wastewater containing harmful levels of toxins. Operation of the landside portion of the proposed project would generate wastewater that is consistent with that of hotel, retail, and other commercial uses, which involve the occasional use of common, non-toxic cleaning products. Additionally, wastewater generated by the waterside component of the proposed project would be consistent with the existing marina. As such, implementation of the proposed project would result in less-than-significant impacts related to wastewater treatment requirements of the RWQCB.

Operation of the proposed project would substantially increase wastewater generation at the site from existing conditions. As mentioned, current employment at the project site is only 1 employee per day to operate the existing WTC. Long-term employment under the proposed project is anticipated to reach a total of 610 jobs on site, including 600 FTEs to operate the proposed hotel, 9 FTEs to operate the low-cost visitor serving hotel, and 1 FTE to operate the marina. In addition, the new WTC would include six private showers and restrooms, which would also be a source of additional wastewater. To be conservative, it was assumed that the projected water demand for the proposed project (excluding water for irrigation) would be discharged as wastewater effluent at a ratio of 1:1. The projected net new water use at the project site that would become wastewater effluent totals approximately 141,062 gpd (124,610 gpd landside and 16,452 gpd waterside), or 51,487,864 gallons per year. 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 141,063 gpd of wastewater associated with the proposed project represents 0.14% of the PLWTP's remaining daily treatment capacity, which is an insignificant amount relative to the remaining treatment capacity. Therefore, the projected wastewater flow for the proposed project 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, new wastewater treatment facilities or the expansion of existing treatment facilities would not be required due to the implementation of the proposed project. Therefore, impacts related to this criterion would be less than significant.

Connection to the City's existing wastewater treatment system would adhere to all City requirements. As mentioned, the proposed project would require upgrades to various onsite and

offsite sewer lines and other sewer infrastructure to accommodate the increased wastewater generated by the proposed project. The Preliminary Sewer Study provides the existing and future flow rates to determine the size of sewer mains that would be required to convey the total wastewater generated by the proposed project per City standards. All of the proposed project's sewage would be routed to the sewer mains under the portions of Marina Way, Convention Way, and Park Boulevard. Ultimately, all of the sewage from the project site would be discharged into the Harbor Drive trunk sewer at the intersection of West Harbor Drive and Park Boulevard.

The calculations to determine what size sewer main would be required to convey the approximately 145,985 total gpd of wastewater (existing plus proposed project) from the project site into the sewer main in Marina Way, Convention Way, and Park Boulevard are provided in the Preliminary Sewer Study. The study determined that a 12-inch sewer main is required to convey the total post development peak flow from Marina Park, SDCC, and the project site to the Harbor Drive trunk sewer. The proposed new 12-inch sewer line would connect to the existing 15-inch trunk sewer main located west of the intersection of West Harbor Drive and Park Boulevard, adjacent to SDCC. The trunk sewer main transports wastewater to a large pump station (Pump Station 2), located at North Harbor Drive, and propels the wastewater to the PLWTP. No changes to the existing 4-inch force main in Marina Park Way are proposed.

It should be noted that the existing 15-inch trunk sewer main west of the intersection of West Harbor Drive and Park Boulevard will be upsized to a 30-inch sewer main as part of the Ballpark Village project. The Ballpark Village project has a performance bond with the City of San Diego for public improvements, including the sewer main upsizing (Gensler pers. comm.). The City of San Diego provided the required trunk sewer main size to the engineer for this project. The upsizing improvements are anticipated to be completed by the end of 2017, prior to commencing construction of the proposed project. In order to accommodate project-generated wastewater, the proposed project is dependent on the upsizing of the existing West Harbor Drive trunk sewer main. Based on the results of the Preliminary Sewer Study, the future 30-inch West Harbor Drive trunk sewer would have sufficient capacity to accommodate the additional wastewater generated by the proposed project. Because the Ballpark Village project has a performance bond with the City to upsize the West Harbor Drive trunk sewer main, and the upsizing improvements are anticipated to be completed prior to construction of the proposed project, it is anticipated that wastewater generated by the proposed project could be sufficiently accommodated. However, in the event that upsizing of the existing 15-inch trunk sewer does not occur, there would be insufficient capacity to accommodate project-generated wastewater. Therefore, due to the uncertainty surrounding the implementation of the 15-inch trunk sewer upsizing, which is necessary to convey project-generated wastewater, potential impacts are considered to be significant (**Impact-UTIL-2**).

Level of Significance Prior to Mitigation

Construction

Construction of the proposed project would not exceed wastewater treatment requirements of the RWQCB, nor would it result in a determination by the PUD that there is inadequate wastewater treatment capacity to serve the project's projected demand in addition to the PUD's existing commitments. Impacts would be less than significant.

However, the proposed project would require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Potentially significant impact(s) include:

Impact-UTIL-1: Construction of Utility Improvements Would Contribute to Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, and Impact-HAZ-1. As analyzed in Sections 4.4, *Cultural Resources*, 4.5, *Geology and Soils*, and 4.7, *Hazards and Hazardous Materials*, the proposed project would result in significant impacts as identified by Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, and Impact-HAZ-1. Construction of the various utility improvements would be a component of the proposed project that would contribute to these significant impacts. As such, impacts from the construction of the proposed utility improvements would be considered significant.

Operation

Operation of the proposed project would not exceed wastewater treatment requirements of the RWQCB. However, there is inadequate wastewater treatment capacity to serve the project's projected demand. Potentially significant impact(s) include:

Impact-UTIL-2: Insufficient Sewer Capacity to Convey Project-Generated Wastewater. The Ballpark Village project has a performance bond with the City to upsize the existing West Harbor Drive trunk sewer main from 15 inches to 30 inches, and the upsizing improvements are anticipated to be completed prior to construction of the proposed project. However, in the event that upsizing of the existing 15-inch trunk sewer main does not occur, there would be insufficient capacity to accommodate project-generated wastewater. Therefore, due to the uncertainty surrounding the implementation of the 15-inch trunk sewer upsizing to 30 inches, which is necessary to convey project-generated wastewater, potential impacts are considered to be significant.

Mitigation Measures

Construction

For **Impact-UTIL-1:**

MM-CUL-1: Archaeological Monitoring in Areas of Sensitivity. The project proponent shall retain a qualified archaeologist(s) who meets the Secretary of the Interior's Professional Qualifications Standards, as promulgated in 36 Code of Federal Regulations 61. The qualified archaeologist shall monitor all proposed grading and excavating for the proposed project in the archaeologically sensitive portion of the project site. The sensitive portion of the project site, where it is possible that cultural materials associated with CA-SDI-15118H exist, consists of the northeastern section currently occupied by the paved parking lot along Convention Way (Figure 4.4-4 of the Draft EIR). The following measures shall only apply to the archaeologically sensitive portion of the project site during earthwork activities, including, but not limited to, grading and excavation.

- The qualified archaeologist shall participate in a preconstruction meeting to inform all personnel of the potential for historical archaeological materials to be encountered during ground-disturbing activities.

- If an isolated artifact or historic period deposit is discovered that requires salvaging, the qualified archaeologist shall have the authority to temporarily halt construction activities within 100 feet of the find and shall be given sufficient time to recover the item(s) and map its location with a global positioning system (GPS) device.
- If buried cultural materials are discovered that require salvaging, the qualified archaeologist shall be empowered to divert construction activities away from the find, and be given sufficient time to recover the item(s) and map its location with a GPS device.
- The qualified archaeologist shall treat recovered items in accordance with current professional standards by properly provenancing, cleaning, analyzing, researching, reporting, and curating them in a collection facility meeting the Secretary of the Interior's Standards, as promulgated in 36 CFR 79, such as the San Diego Archaeological Center.
- Within 60 days after completion of the ground-disturbing activity, the qualified archaeologist shall prepare and submit a final report to the District's Development Services Department for review and approval, which shall discuss the monitoring program and its results, and provide interpretations about the recovered materials, noting to the extent feasible each item's class, material, function, and origin.

MM-CUL-2: Paleontological Monitoring in Areas of Sensitivity. To reduce potential impacts on paleontological resources, all proposed grading and excavating to depths greater than 10 feet shall be monitored by a qualified paleontologist(s), approved by the District's Development Services Department and paid for by the project proponent. Specifically, the project proponent and/or its construction supervisor shall ensure the following measures are implemented.

- A qualified Paleontologist shall attend the preconstruction meeting 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 a 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 mitigation project supervisor in the County for at least 1 year.
- A paleontological monitor shall be on site on a full-time basis during excavation and pile-driving activities that occur 10 feet or more below ground surface, 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 selected by the qualified Paleontologist who has experience in the collection and salvage of fossil materials.
- If fossils are discovered, the Paleontologist shall recover them and temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner.
- Fossil remains collected during the monitoring and salvage portion of the mitigation 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 shall be accompanied by financial support for initial specimen storage, paid for by the project proponent.

- Within 30 days after the completion of an excavation and pile-driving activities, a final data recovery report shall be completed by the qualified Paleontologist that outlines the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.

MM-GEO-1: Demonstrate Compliance with Regulations, including CBC and City of San Diego Municipal Code, by Preparing a Geotechnical Investigation Report. To reduce potential impacts related to soil hazards, the project proponent shall conduct a geotechnical investigation for the project prior to the completion of the final design of the project. The geotechnical investigation shall be submitted to the District and the City of San Diego and be approved by the City of San Diego. The project proponent shall be required to implement the recommendations identified in the geotechnical report. The geotechnical report shall be prepared in compliance with CBC regulations and include the following:

- Site-specific geotechnical and fault evaluation.
- Suitability determination for construction within soil hazard areas.
- Recommendations for design and construction practices based on the suitability determination, such as:
 - Temporary shoring
 - Supporting structures on pile foundations
 - Measures to protect structures against corrosion
 - Ground improvement techniques, such as deep soil mixing and compaction grouting

MM-HAZ-1: Prepare and Implement a Soil and Groundwater Management Plan. Prior to the District's approval of the project's landside working drawings, 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 Development Services Department for review and approval. After the District's approval, the project proponent shall implement the Soil and Groundwater Management Plan. The Soil and Groundwater Management Plan shall include the following:

- *A Landside Site Contamination Characterization Report* (Landside Characterization Report) delineating, throughout the landside project construction area, the vertical and lateral extent and concentration of landside residual contamination from the site's past use including, but not limited to, past use of the site as a fuel facility, municipal burn dump, and manufactured gas plant waste disposal area. The Landside Characterization Report shall include 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 landside residual contamination. The project applicant also shall enroll in the Voluntary Assistance Program with the County of San Diego Department of Environmental Health and shall submit the results of the Landside Characterization Report to Department of Environmental Health staff for regulatory concurrence of results.
- *A Soil and Groundwater Testing and Profiling Plan* (Testing and Profiling Plan) for those materials that will be disposed of during construction. Testing shall occur for all potential contaminants of concern, including CA Title 22 metals, PAHs, volatile organic compounds,

pesticides, PCBs, semi-volatile organic compounds, hydrocarbons, or any other potential contaminants. 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 Soil and Groundwater Sediment Testing and Profiling Plan.

- *A Soil and Groundwater Disposal Plan* (Disposal Plan), which shall describe the process for excavation, stockpiling, dewatering, treating, and loading and hauling of soil and groundwater 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, CAC Title 27), and current industry best practices for the prevention of cross contamination, spills, or releases, such as 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 Landside Characterization Report and the planned site construction activity to ensure that site workers potentially exposed to site contamination in soil and groundwater 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 Submit a Monitoring and Reporting Program. During and upon completion of landside construction, the project proponent shall prepare a Monitoring and Reporting Program and submit it to the District's Development Services Department for review and approval. The Monitoring and Reporting Program shall document implementation of the Soil and Groundwater 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 the project proponent's submittal of monthly reports to the District's Development Services Department, signed and certified by the licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer, as applicable, documenting compliance with the provisions of these and plans and the overall Soil and Groundwater Management Plan.

MM-HAZ-3: Prepare and Submit a Project Closeout Report. Within 30 days of completion of landside construction, the project proponent shall prepare a Project Closeout Report and submit it to the District's Development Services Department for review and approval. The Project Closeout Report shall summarize all environmental activity at the site and document implementation of the Soil and Groundwater Management Plan, as required by **MM-HAZ-1**, and the Monitoring and Reporting Program, as required by **MM-HAZ-2**.

MM-HAZ-4: Develop and Implement a Site-Specific Community Health and Safety Program. Prior to the District's approval of the project's landside working drawings, the project proponent shall develop a site-specific Community Health and Safety Program (Program) that addresses the chemical constituents of concern for the project site. The guidelines of the

Program shall be in accordance with the County of San Diego Department of Environmental Health's *Site Assessment and Mitigation Manual* (2009) and EPA's *SW-846 Manual* (1986). The Program shall include detailed plans on environmental and personal air monitoring, dust control, and other appropriate construction means and methods to minimize the public's exposure to the chemical constituents of concern. The Program shall be reviewed, approved, and monitored for compliance by the District. After the District's approval, the project proponent shall implement the Program. The contractor shall utilize a Certified Industrial Hygienist with significant experience with chemicals of concern on the project site to actively monitor compliance with the Program and ensure its proper implementation during project construction activities.

Operation

For **Impact-UTIL-2**:

MM-UTIL-1: Upsize the Existing West Harbor Drive Trunk Sewer Main to Accommodate Project-Generated Wastewater. Prior to occupancy and operation of the proposed market-rate hotel tower or the lower-cost visitor-serving hotel, whichever is first, the project proponent shall upsize the existing 15-inch trunk sewer main located at the intersection of West Harbor Drive and Park Boulevard to a 30-inch trunk sewer main. The financing of the upsizing may include a cost-sharing agreement with one or more parties, or any other alternative means of financing to ensure that the upsizing occurs. Alternatively, the project proponent may wait until the upgrades are completed by another entity to operate the market-rate hotel tower or the lower-cost visitor-serving hotel, whichever is ready for operation first. At no point shall the project proponent operate one or both prior to the trunk sewer main being upsized.

Level of Significance after Mitigation

Construction

Implementation of **MM-CUL-1**, **MM-CUL-2**, **MM-GEO-1**, and **MM-HAZ-1** through **MM-HAZ-4** would reduce **Impact-UTIL-1** as it relates to cultural resources, geology and soils, and hazards and hazardous materials to less-than significant levels for the reasons described in Sections 4.4, *Cultural Resources*, 4.5, *Geology and Soils*, and 4.7, *Hazards and Hazardous Materials*. Therefore, impacts associated with construction of new wastewater facilities would be less than significant.

Operation

Implementation of **MM-UTIL-1** would ensure that the existing 15-inch trunk sewer main at the intersection of West Harbor Drive and Park Boulevard is upsized to 30 inches prior to the commencement of operations of the hotel and lower-cost visitor-serving hotel, which would sufficiently accommodate wastewater generated by the proposed project. As a result, **Impact-UTIL-2** would be reduced to less-than-significant levels. Although **MM-UTIL-1** would reduce potential significant impacts on wastewater infrastructure capacity, implementation of **MM-UTIL-1** would have the potential to result in secondary effects. Construction activities associated with **MM-UTIL-1** would involve, at a minimum, excavation of asphalt, demolition and removal of the existing trunk sewer main, installation of the new trunk sewer main, and repaving of the intersection of West Harbor Drive and Park Boulevard. All of these construction activities would generate increased temporary noise levels, additional construction vehicle trips, and emissions of criteria pollutants and GHGs. There is also a potential that wastewater service could be temporarily disrupted during

construction of **MM-UTIL-1**. Furthermore, ground-disturbing activities associated with **MM-UTIL-1**, such as excavation, have the potential to damage, or result in the loss of, unknown subsurface archaeological and paleontological resources, as well as exacerbate the potential for liquefaction, lateral spreading, and soil collapse. Similarly, contaminated soils may also be encountered during ground-disturbing activities associated with **MM-UTIL-1**. However, because **MM-UTIL-1** would be implemented as part of the proposed project, implementation of **MM-CUL-1**, **MM-CUL-2**, **MM-GEO-1**, and **MM-HAZ-1** through **MM-HAZ-4** would also be required during implementation of **MM-UTIL-1**. Additionally, it is anticipated that any increases in noise would be generally consistent with other concurrent construction activities associated with the proposed project, and any additional construction haul trips would be minimal compared to the overall number of construction trips generated by the proposed project. Regarding emissions of criteria pollutants and GHGs, the potential impacts on air quality and GHG emissions associated with **MM-UTIL-1** are addressed in Sections 4.2, *Air Quality and Health Risk*, and 4.4, *Greenhouse Gas Emissions and Climate Change*, of this EIR. As discussed in each of these sections, implementation of **MM-UTIL-1** would result in less than significant impacts on air quality and GHG emissions. Consequently, the overall secondary effects of implementing **MM-UTIL-1** would be less than significant.

Threshold 2: Implementation of the proposed project:

- a) Would not result in insufficient water supplies from existing entitlements and resources, resulting in the need for new or expanded entitlements;***
b) Would not require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Discussion

The proposed project would not construct or require the construction of any new or expanded water treatment facilities. Therefore, the analysis below focuses on the project's water demand compared with the projected supply.

Construction

Water would be required during construction of the proposed project for activities such as dust suppression—including dust suppression for demolition, the mixing of concrete, and light washing of equipment and tools consistent with water quality regulations—and for drinking water for construction workers. Short-term dewatering may be necessary during construction of the foundations for the market-rate hotel tower and its related project elements. The proposed project would comply with dewatering requirements imposed by the San Diego Regional Water Quality Control Board. It is anticipated that construction of the proposed project would require approximately 1,600 gallons per day of water, with an estimated total water usage of approximately 1,500,000 gallons during project construction. Water usage during construction would be temporary, and reclaimed water would be used for dust suppression, equipment washing, etc., if feasible, which would reduce the quantity of potable water required. Construction water usage would result in a less-than-significant impact.

Operation

Operation of the landside and waterside components of the proposed project would require a net new total of approximately 51,837,872 gallons per year, or 159 AFY⁴ of water. Table 4.14-10 provides a detailed breakdown of the anticipated net new water demand for both the landside and waterside components of the proposed project.

Table 4.14-10. Proposed Project Water Demand

Category	Quantity	Water Use (GPD)
Market-Rate Hotel Tower	850 rooms/796,000 gross square feet	104,720 ¹
Lower-Cost Visitor Serving Hotel ²	565 beds/80,000 gross square feet	19,891 ¹
Marina Expansion	4,980 linear feet	16,452
Landscaping	131,324 square feet	959 ³
Total		142,021 (159 AFY)

Source: Appendix L-2.

¹ Projected water use based on an average of 55 gallons per square foot and 102 gallons per room and includes ancillary hotel uses such as hotel restaurants

² Includes visitor-serving retail uses and WTC.

³ Exterior irrigation water consumption average of approximately 0.222 gallon of water per square foot of landscaping per month.

As mentioned, water service for the proposed project would be provided by the City of San Diego PUD's Water Branch. In terms of accounting for the proposed project, water demand projections in the City's 2015 UWMP were based on SANDAG's Series 13 Forecast, which anticipates future growth through 2050 based on existing local jurisdiction's general plans, including the Port Master Plan (PMP). As discussed in Chapter 3, *Project Description*, the proposed project would require an amendment to the PMP, which is the District's guiding land use and planning document for development within its jurisdiction. As such, the proposed project is not currently included in the PMP, and therefore was not included in the growth assumptions of SANDAG's Series 13 Forecast. Consequently, the proposed project is not currently accounted for in the City's water supply and demand projections in its 2015 UWMP for normal, single-year, or multiple- year dry scenarios. Similarly, the San Diego County Water Authority's 2015 UWMP is also based on SANDAG's Series 13 Forecast; therefore, the proposed project is also not accounted for in the County Water Authority's water supply and demand projections for normal, single-year, or multiple- year dry scenarios. The San Diego County Water Authority's 2015 UWMP long-range water demand forecast incorporates a small demand increment associated with potential accelerated forecasted growth (PUD 2016a). This demand increment is intended to account for land use development included in SANDAG's growth forecast and projected to occur beyond year 2040, but not yet accounted for in local jurisdictions' general land use plans.

The accelerated forecasted growth demand increment was included in the San Diego County Water Authority's 2015 UWMP to assist member agencies with general plan amendments that rely on the San Diego County Water Authority's demand forecast to comply with laws linking water availability and land-use approvals, and intended to ensure San Diego County Water Authority is adequately planning supplies for potential growth within the service area during the 2015 UWMP planning

⁴ One acre-foot equals approximately 326,000 gallons.

horizon. As a member agency of San Diego County Water Authority, the City has access to San Diego County Water Authority's regional supply associated with accelerated forecasted growth, in conjunction with supplies identified in the City's 2015 UWMP. Additionally, the San Diego County Water Authority tracks demands associated with member agency projects requesting a portion of the accelerated forecasted growth demand increment, to demonstrate that adequate supplies exist for reach new development. The demand associated with accelerated forecasted growth is intended to account for a portion of SANDAG's estimated land use development currently projected to occur beyond the San Diego County Water Authority's 2040 planning horizon, in the event that development projected to occur beyond 2040 were to occur within the 2020–2040 planning period (San Diego County Water Authority 2016). However, because the proposed project was not included in SANDAG's Series 13 growth forecast assumptions, this additional water supply for the projects included in the accelerated forecasted growth is not intended for the proposed project. It should be noted that UWMPs are updated every 5 years in accordance with the California Urban Water Management Planning Act, at which time the projected supply and demand of potable water resources is reevaluated for the 20-year planning period. Because the San Diego County Water Authority's UWMP relies on the growth projections in the SANDAG series models, water demand for an approved project is accounted for in the UWMP updates once that project is incorporated into the SANDAG series model.

For any water demands that cannot be met by local supplies (i.e., reservoirs), the City's PUD purchases water from the San Diego County Water Authority. The County Water Authority was organized for the primary purpose of supplying imported water to San Diego County for wholesale distribution to its member cities, including the City's PUD. According to the San Diego County Water Authority's 2015 UWMP, the County Water Authority's water supplies are predominantly imported from Northern California through the State Water Project and the Colorado River. These imported water supplies consist of water purchases from the Metropolitan Water District, core water transfers from Imperial Irrigation District and canal lining projects that pass through Metropolitan Water District's conveyance facilities, and spot water transfers that are pursued on an as-needed basis. To further diversify regional supplies, the County Water Authority entered into a formal Water Purchase Agreement with Poseidon Water, a private investor-owned company, in November 2012. The Water Purchase Agreement details commercial and financial terms for the development and purchase of desalinated ocean water produced at the Carlsbad Desalination Plant. This facility is currently in operation and produces up to 56,000 AFY for the region (Carlsbad Desalination Project 2017). As such, there are a diverse number of water sources to meet the water demand of the proposed project.

Notably, **MM-GHG-3**, in Section 4.6, *Greenhouse Gas Emissions and Climate Change*, requires the proposed project to incorporate indoor water reduction measures, including high-efficiency toilets, high-efficiency urinals, low-flow faucets, and low-flow showers (as applicable) into the design. Although not required to reduce a significant impact on water supply, these measures would achieve a minimum 20% water reduction for the proposed project.

Therefore, because of the diverse water supply portfolio of the County Water Authority and because water can be purchased from outside the region to offset any additional water demand, the proposed project's impacts on the water supply would be less than significant. Additionally, the proposed project would not construct or require the construction of any new or expanded water treatment facilities; therefore, no impacts would occur.

Level of Significance Prior to Mitigation

Implementation of the proposed project would not result in insufficient water supplies from existing entitlements and resources, resulting in the need for new or expanded entitlements, nor would it require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 3: The proposed project would result in or require the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effect.

Impact Discussion

Construction

Stormwater flow from the project site is currently carried through five main drainage systems that ultimately drain into the Bay. A 15-inch storm drain currently captures onsite drainage from a portion of the existing parking lot and ultimately discharges into San Diego Bay through an outfall at the northeastern portion of the project site. As part of the proposed project, approximately 250 linear feet of this existing outfall system would be demolished during construction of the proposed market-rate hotel tower and would be relocated to Marina Park Way, where it would tie into the existing storm drain system located near the northwest corner of the SDCC Phase II building. Aside from the relocation of the storm drain to Marina Park Way, no other stormwater improvements are proposed, either landside or waterside. The remaining four existing drainage systems that cross the project site would be maintained, as the landside components of the proposed project would be constructed on top of the existing storm drains.

Potential impacts associated with construction of the proposed project, including the relocation of a portion of the storm drain, are analyzed throughout the applicable sections of this EIR, including Sections 4.1, *Aesthetics and Visual Resources*, 4.2, *Air Quality and Health Risk*, 4.4, *Cultural Resources*, 4.6, *Greenhouse Gas Emissions and Climate Change*, 4.7, *Hazards and Hazardous Materials*, 4.8, *Hydrology and Water Quality*, 4.10, *Noise and Vibration*, and 4.12, *Transportation, Circulation, and Parking*. The proposed stormwater improvements would not result in impacts related to aesthetics and visual resources, air quality and health risk, GHG emissions and climate change, hydrology and water quality, noise and vibration, or transportation, circulation, and parking.

As discussed in Section 4.4, *Cultural Resources*, there is a potential that historical archaeological resources, specifically CA-SDI-15118H, could be unearthed during project construction, including the relocation of a portion of the storm drain. As such, the proposed project could significantly impact CA-SDI-15118H if portions of the site were unearthed during construction of the proposed

storm drain improvements (**Impact-CUL-1**). Additionally, Old Paralac Deposits occur underneath the entire project site and are designated as having a high sensitivity for paleontological resources. As such, ground-disturbing activities during project construction have the potential to significantly affect highly sensitive paleontological resources due to excavation that would extend 10 feet or more below ground surface and would include the movement of more than 1,000 cubic yards of soil (**Impact-CUL-2**).

In addition, as discussed in Section 4.5, *Geology and Soils*, the proposed project would include excavation of soil and construction of structures and stormwater improvements within areas of high liquefaction and unstable soil. These activities could loosen soil compaction and otherwise disturb the existing geologic conditions, thus exacerbating the potential for liquefaction, lateral spreading, and soil collapse to occur, if compliance with regulations does not occur (**Impact-GEO-1** and **Impact-GEO-2**).

Furthermore, as discussed in Section 4.7, *Hazards and Hazardous Materials*, there is a potential that contaminated soils may be encountered during construction and excavation activities for the proposed project, including the proposed storm drain relocation. In the event contaminated soils are encountered, there is a potential that hazardous materials could be released into the environment and the existing hazardous conditions could be exacerbated (**Impact-HAZ-1**).

Overall, these significant construction-related impacts, while not specifically associated with the proposed stormwater improvements, would be more severe with these infrastructure upgrades than without. Therefore, the proposed stormwater improvements would contribute to significant construction-related impacts (**Impact-CUL-1**, **Impact-CUL-2**, **Impact-GEO-1**, **Impact-GEO-2**, and **Impact-HAZ-1**) (**Impact-UTIL-1**).

Construction staging at the offsite R.E. Staite staging site would not result in impacts on stormwater facilities, as this site is currently used for staging construction equipment and would not expand or construct utilities.

Operation

Operation of the relocated storm drain would help to better accommodate project-related stormwater flows from the site. Aside from the relocation of the storm drain to Marina Park Way, no other stormwater improvements are proposed, either landside or waterside. According to the Preliminary Drainage Study, the post-project drainage conditions would be similar to the existing drainage conditions at the site. The proposed drainage strategy includes draining the proposed roof drains toward the inland side of the building for treatment prior to discharge into the existing storm drains via new proposed storm drain connections and laterals (Appendix I-2). As discussed in Section 4.8, *Hydrology and Water Quality*, the project site would retain as much runoff as possible within the green roof and the landscaping areas along the proposed plaza. The relocated storm drain would tie into an existing storm drain before ultimately discharging into the Bay. In addition, post-construction best management practices such as modular wetland proprietary biofiltration units would be utilized throughout the project site to ensure proper treatment of stormwater to remove pollutants prior to discharge into the Bay. Therefore, operation of the relocated storm drain would result in less-than-significant impacts.

Level of Significance Prior to Mitigation

Construction

The proposed project would result in or require the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Potentially significant impact(s) include:

Impact-UTIL-1: Construction of Utility Improvements Would Contribute to Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, and Impact-HAZ-1, as described under Threshold 1.

Operation

Operation of the proposed project would not result in or require the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Impacts would be less than significant.

Mitigation Measures

Construction

Implement **MM-CUL-1**, **MM-CUL-2**, **MM-GEO-1**, and **MM-HAZ-1** through **MM-HAZ-4** as described above.

Operation

No mitigation is required.

Level of Significance after Mitigation

Construction

Implementation of **MM-CUL-1**, **MM-CUL-2**, **MM-GEO-1**, and **MM-HAZ-1** through **MM-HAZ-4** would reduce **Impact-UTIL-1** as it relates to cultural resources, geology and soils, and hazards and hazardous materials to less-than significant levels for the reasons described in Sections 4.4, *Cultural Resources*, 4.5, *Geology and Soils*, and 4.7, *Hazards and Hazardous Materials*. Therefore, impacts associated with construction of new stormwater drainage facilities would be less than significant.

Operation

Impacts would be less than significant.

Threshold 4: Implementation of the proposed project would:***a) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs;******b) Comply with federal, state, and local statutes and regulations related to solid waste.*****Impact Discussion****Construction**

Construction of the proposed project would involve demolition activities and new construction of the market-rate hotel tower and lower-cost visitor serving hotel (including the WTC), the marina expansion, installation of landscaping, and public right-of-way improvements such as pedestrian walkways. Construction is anticipated to occur during approximately 24 to 30 months and would be completed in 2021. The marina expansion would be constructed in two phases (Phase I and Phase II). The Phase I marina expansion would be constructed at the same time the market-rate hotel tower is constructed. However, the construction of the Phase II marina expansion would be market driven and customer dependent. It is anticipated that the Phase II marina expansion would be constructed within approximately 5 years after the market-rate hotel tower is constructed.

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 C&D Debris Deposit Ordinance. Demolition, grading, and pouring of foundations would occur first. The existing landside uses on the project site would be demolished to accommodate the construction of the proposed project. Although the existing 35-foot-wide bayfront promenade would be temporarily inaccessible along portions of the project site, alternative access to the South Embarcadero would always be provided to the general public. In total, approximately 5 acres would be graded that would require demolition of approximately 1,711 cubic yards of the asphalt parking lot, 1,407 cubic yards of the hardscape, and 38,350 cubic yards of other materials, including concrete from existing buildings. Approximately 98% of the asphalt and 25% of the hardscape would be recycled on site. Materials that are not recyclable would be taken to Miramar Landfill, which has a permitted remaining capacity of 11,600,000 tons or 13,688,000,000 cubic yards.⁵ Assuming that at least 65% of the remaining construction waste would be recycled off site per the C&D Debris Deposit Ordinance, approximately 13,804 cubic yards of construction waste would be taken to the Miramar Landfill. This would represent approximately 0.0001% of the landfills 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, impacts on existing landfills from construction materials would be less than significant.

Operation

Solid waste generation estimates for the proposed project assume full buildout, including the proposed market-rate hotel tower, lower-cost visitor serving hotel (including the WTC), and Phases

⁵ The conversion is based on a density of 1,180 cubic yards per ton (page 3-2 of Chapter 3 of the City of San Diego's 2008 LRMOSP [BAS Team 2008]).

I and II of the proposed marina expansion. Once operational, the proposed project would introduce up to 610 jobs on site, including 600 FTEs to operate the proposed hotel, 9 FTEs to operate the lower-cost visitor serving hotel, and 1 FTE to operate the expanded marina. In addition to solid waste generated by the additional employees, the proposed market-rate hotel tower, lower-cost visitor serving hotel (including the WTC), and the expanded marina would generate solid waste from hotel guests, retail customers, and marina users, as well as general operational activities. Operation of the landside portion of the proposed project would generate approximately 13,631 pounds per day, or 2,488 tons per year, of solid waste. Additionally, operation of the waterside portion of the proposed project would generate approximately 2,553 pounds per day, or 466 tons per year, of solid waste. Accordingly, the combined total quantity of solid waste that would be generated by the proposed project would total approximately 2,954 tons per year. Because the District does not currently have specific criteria for quantifying impacts related to solid waste generation and disposal, and solid waste is collected and processed by the City of San Diego franchised waste haulers, the City's threshold of 1,500 tons per year is used to determine whether the proposed project would result in an impact on solid waste facilities. While the overall solid waste generated by the proposed project would exceed this threshold, as shown in Tables 4.14-7 and 4.14-8, only 1,224 tons of the total project-generated solid waste would be destined for the landfill on an annual basis, with the remaining 1,737 tons comprising recyclable and compostable waste. This results in a diversion of approximately 59% of the overall project-generated waste from local landfills. As such, the amount of solid waste that would be generated by the proposed project annually and disposed of in a landfill would be below the City's thresholds of 1,500 tons per year.

In addition, Miramar Landfill is closest to the project site, and as shown in Table 4.14-4, has a permitted remaining capacity of 11,600,000 tons.⁶ The proposed project's annual contribution of 1,224 tons of solid waste per year would represent 0.01% of the landfill's remaining capacity. This represents a conservative estimate because the proposed project would be required to comply with applicable waste diversion requirements. Therefore, because the proposed project would be required to comply with federal, state, and local laws related to solid waste; disposable solid waste generated during project operations would be below the City's thresholds; and the Miramar Landfill has sufficient permitted capacity to accommodate disposable solid waste generated by the proposed project, impacts on solid waste facilities would be less than significant.

Level of Significance Prior to Mitigation

Implementation of the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, and would comply with federal, state, and local statutes and regulations related to solid waste. Impacts would be less than significant.

⁶ Miramar Landfill is projected to close in 2030. Once Miramar Landfill is closed, solid waste collection would be rerouted to Sycamore Canyon Landfill, Otay Annex Landfill, and/or Borrego Landfill, the latter of which is projected to close in 2046. At present, there are no active landfills in San Diego County that are projected to operate beyond 2046. Given the amount of time (30 years) from the anticipated closure of the Borrego Landfill, it is reasonably foreseeable that additional landfill space would be acquired by the City and/or County to accommodate the region's solid waste beyond 2046. The City and/or County would be responsible for ensuring that sufficient landfill space exists to accommodate the solid waste disposal needs of the region. Because of the uncertainty surrounding solid waste facilities beyond 2046, it would be speculative to analyze the proposed project's potential impacts on a future landfill.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Impacts would be less than significant.

Threshold 5: Implementation of the proposed project:

***a) Would not result in the wasteful, inefficient, or unnecessary use of energy;
b) Would not require or result in the construction of new energy system infrastructure or the expansion of existing infrastructure, the construction of which could cause significant environmental effects.***

Impact Discussion

Wasteful, Inefficient, or Unnecessary Use of Energy

This impact analysis follows the guidance put forth by Appendix F of the State CEQA Guidelines. As noted in that appendix, the means of achieving the goal of conserving energy include the following.

1. Decreasing overall per capita energy consumption
2. Decreasing reliance on fossil fuels such as coal, natural gas, and oil
3. Increasing reliance on renewable energy sources

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. Both construction and operation are addressed below.

Construction

Project construction would primarily consume diesel fuel through operation of heavy-duty construction equipment, material deliveries, and debris hauling; gasoline associated with worker commute; and minor amounts of electricity associated with operation of electrically powered construction equipment. As indicated in Table 4.14-11, energy use associated with project construction is estimated to result in the short-term consumption of 51,693 million BTUs. This represents a small demand on local and regional fuel and electricity supplies that could be easily accommodated by fuel suppliers. Moreover, this demand for fuel would have no noticeable effect on peak or baseline demands for energy. Therefore, construction of the proposed project would not result in a wasteful, inefficient, and unnecessary usage of direct or indirect energy.

Table 4.14-11. Estimated Construction Energy Consumption

Source	Million BTUs/year ¹
	Net New with Project
Diesel	
Truck Travel	11,346
Equipment (landside construction)	20,590
Equipment (Phase I + Phase II marina construction)	7,398

Source	Million BTUs/year ¹
	Net New with Project
Boats (Phase I + Phase II marina construction)	488
<i>Total Diesel</i>	<i>39,821</i>
Gasoline	
Worker Commute	11,862
Electricity	
Equipment	10
Total	51,693

Source: Appendix L-2.

¹ Energy is provided in million BTU for comparison purposes.

Totals may not add due to rounding.

BTUs can be converted to gallons of gasoline and diesel using the following formulas: 113,927 BTU/1 gallon of gasoline; 129,488 BTU/1 gallon of diesel; BTUs can be converted to kwh using the following formula: 3,416 BTU/kwh of electricity.

Operation

Operation of the landside and waterside components of the proposed project would both require the consumption of energy, including electricity and natural gas. The primary components of the proposed project that would result in energy consumption during project operations are the proposed market-rate hotel tower, lower-cost visitor serving hotel, expanded marina, and visitor-serving retail uses. The landside component of the project would result in energy consumption from hotel operations (i.e., lighting, exhaust and building fans, heating and air conditioning), employee vehicle trips, visitor-related vehicle trips, delivery trucks, and retail operations (i.e., lighting and air conditioning). Additionally, the waterside component of the project would result in energy consumption from new shore power, dock lighting, and fuel for vessels, including the ferry, water taxi, and recreational boats that would dock at the expanded marina. Although the waterside portion of the project site currently uses energy for ferry services, water taxi services, and the marina, the proposed project would increase the number of slips at the marina from 12 slips under existing conditions to 64 total slips upon completion of Phase II of the proposed marina expansion. Thus, once operational, the proposed project would require more energy than currently required at the project site under existing conditions. Table 4.14-12 summarizes the estimated increase in operational energy consumption for both the landside and waterside components of the proposed project.

Table 4.14-12. Estimated Annual Operational Energy Consumption (Million BTUs/year¹)

Source	Existing	No Measures		With Measures	
		Landside	Waterside	Landside	Waterside
Electricity					
Electricity Consumption	4,586	55,298	61,588	55,298	61,558
Natural Gas					
Building Consumption	2,404	26,322	-	26,322	-

Source	Existing	No Measures		With Measures	
		Landside	Waterside	Landside	Waterside
Diesel					
Ferry Service	6,815	-	6,815	-	3,635
Recreational Boating	7,552	-	87,209	-	77,817
<i>Total Diesel</i>	<i>14,367</i>	-	<i>94,025</i>	-	<i>81,452</i>
Gasoline					
Visitor Trips	663	102,617	-	71,324	-
Recreational Boating	<1	-	<1	-	<1
<i>Total Gasoline</i>	<i>663</i>	<i>102,617</i>	<i><1</i>	<i>71,324</i>	<i><1</i>
Total	22,020	184,237	155,613	152,944	143,040

Source: Appendix L-2.

¹ Energy is provided in million BTU for comparison purposes. However, electricity use can be converted to kWh by multiplying 1 million BTUs by 293.1 kWh.

BTUs can be converted to gallons of gasoline and diesel using the following formulas: 113,927 BTU/1 gallon of gasoline; 129,488 BTU/1 gallon of diesel; BTUs can be converted to kwh using the following formula: 3,416 BTU/kwh of electricity.

As shown in Table 4.14-12, operation of the proposed project would result in an estimated total annual energy consumption from combined landside and waterside components of 339,850 million BTUs. However, with conservation and renewable energy State measures and the mitigation measures provided to ensure consistency with the District's Climate Action Plan and related State GHG emission-reduction regulations, the proposed project would reduce the amount of fuel consumed and energy required for the net new demand by 17% for the landside components and by 8% for the waterside components of the project, resulting in annual energy consumption from combined landside and waterside components of 295,984 million BTUs. Note that this reduction only includes savings associated with statewide measures that would reduce the carbon intensity, and associated energy consumption, of transportation fuels and electricity in 2021; thus, carbon savings in future years due to further implementation of existing measures, including SB 350, are not included. This reduction is consistent with strategies being implemented by the District and the State via the Energy Policy Act and AB 2076 to reduce energy consumption, and the proposed project would be consistent with these strategies.

Table 4.14-13 provides a consistency analysis with questions raised in Appendix F of the State CEQA Guidelines.

Table 4.14-13. Proposed Project Comparison to State CEQA Guidelines Appendix F

Project Impact Considerations from Appendix F	Project Applicability and Analysis
Energy requirements and energy use efficiencies by amount and fuel type for each stage of the project.	Applies. See Tables 4.14-9 and 4.14-10, both of which break down construction and operational energy use by amount and fuel type. As indicated, the project would increase the use of electricity and the need for fossil fuels such as diesel fuel, gasoline, and natural gas compared to existing conditions.

**Project Impact
Considerations from
Appendix F**
Project Applicability and Analysis

Effects on local and regional energy supplies and the need for additional capacity

Applies. Operation of the landside and waterside components of the proposed project would require upgrades to existing energy infrastructure to accommodate the increased energy demand of the proposed project. However, this would merely involve electrical trenching to the existing Sampson Street Substation, and potentially adding a new switch and/or transformer. In addition, **MM-GHG-3** would require the implementation of various sustainability and energy-saving features to reduce the overall energy demand of the proposed project, such as indoor water reduction measures, a high-efficiency lighting system, and a “Cool Roof.” Moreover, **MM-GHG-4** would require the proposed project to incorporate renewable energy and/or the purchase of an equivalent of GHG offsets, 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

Applies. 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 infrastructure. As discussed above, implementation of **MM-GHG-3** would require the implementation of various sustainability and energy-saving features to reduce the overall energy demand of the proposed project. In addition, **MM-GHG-4** would require the proposed project to incorporate renewable energy and/or the purchase of an equivalent of GHG offsets, which would further reduce the proposed project’s overall energy demand, including during peak and base period demands. 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

Applies. The proposed project would be fully compliant with all existing energy standards, including the Energy Policy Act and AB 2076. The proposed project would include energy-efficient lighting and building materials within the project site and would reduce the use of fossil fuels by increasing electricity use.

Effects of the project on energy resources

Applies. 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 **MM-GHG-3** would require the implementation of various sustainability and energy-saving features, such as indoor water reduction measures, a high-efficiency lighting system, and a “Cool Roof.” Additionally, **MM-GHG-4** would require the proposed project to incorporate renewable energy and/or the purchase of an equivalent of GHG offsets.

**Project Impact
Considerations from
Appendix F**

Project Applicability and Analysis

Projected transportation energy use requirements and overall use of efficient transportation alternatives

Applies. The proposed project would substantially increase the need for fossil fuels and electricity compared to baseline conditions because it would introduce new uses to the landside portion of the project site, which currently consists of parking lots, the WTC ticket booth, a temporary mobile trailer office, and park space. The construction of a new market-rate hotel tower, lower-cost visitor serving hotel, and visitor-serving retail uses would result in electricity consumption during operations and fossil fuel consumption from vehicle trips. However, **MM-GHG-2** requires the installation of charging stations in the proposed parking garage to support electric vehicles. The proposed parking structure would also accommodate carpools, public vans, and other forms of mass transit. In addition, the waterside component of the proposed project would increase the overall number of marina slips from 12 to 62 upon completion of Phase II of the proposed marina expansion, and would also include the installation of shore power at the expanded marina. These improvements would increase the number of vessels that could dock in the marina. As a project feature, 100% of yachts docked at the expanded marina are expected to use grid-based shore power for electrical needs, similar to existing conditions. Other project design features and implementation of mitigation measures would decrease the proposed project's need for fossil fuels compared to unmitigated conditions.

In summary, the proposed project would assist with energy conservation goals because it would (1) decrease reliance on fossil fuels and (2) would increase reliance on renewable energy sources via the electrical grid, which includes RPS targets of 33% by 2020 and 50% by 2030. Impacts would be less than significant.

Construction or Expansion of Energy Infrastructure

Operation of the landside and waterside components of the proposed project would require upgrades to existing energy infrastructure to accommodate the increased energy demand of the proposed project. The waterside components of the proposed project include the installation of shore power at the expanded marina. The use of additional shore power would help offset running auxiliary engines while vessels are docked at the marina, resulting in fewer emissions and significantly less fossil fuel use. Additionally, **MM-GHG-4** requires the incorporation of renewable energy into the project design and/or the purchase of an equivalent of GHG offsets. Finally, **MM-GHG-3** requires the installation of future charging stations for electric vehicles in the proposed parking garage and would have immediate access to existing electrical connections in the area. This would potentially lead to further reductions in fossil fuel use.

The implementation of these project elements and mitigation measures are analyzed in the applicable sections of this EIR, including Sections 4.2, *Air Quality and Health Risk* and 4.6, *Greenhouse Gas Emissions and Climate Change*. Impacts associated with their implementation and operation would be less than significant in isolation, though as a whole the proposed project would have significant air quality and GHG impacts.

While the installation of shore power would help to reduce fossil fuel use associated with the proposed marina expansion, the proposed project as a whole would result in a substantial increase

in electricity use at the project site compared to existing conditions. A comparison of the electricity use at the project site between existing and proposed project conditions is provided in Table 4.14-12, above. Based on consultation with SDG&E, the existing electrical circuit on Convention Way does not have sufficient capacity to serve the proposed project (Bault pers. comm.). As a result, the proposed project would be required to tie into other SDG&E circuits outside of the project site. During consultation, SDG&E indicated that the proposed project would be required to tie into the Sampson Street Substation. This would require trenching from the project site, out along Convention Way to Harbor Drive, and along Harbor Drive to the Sampson Street Substation, for a total trenching distance of approximately 1.4 miles. Additionally, there is a potential that a new switch and/or transformer may need to be added at the Sampson Street Substation to accommodate the proposed project's energy demand. As such, the proposed project would result in the expansion of existing energy infrastructure, the construction of which could result in significant environmental impacts.

Potential impacts associated with construction of the proposed project, including upgrades to existing electrical infrastructure, are analyzed throughout the applicable sections of this EIR, including Sections 4.1, *Aesthetics and Visual Resources*; 4.2, *Air Quality and Health Risk*; 4.4, *Cultural Resources*; 4.5, *Geology and Soils*; 4.6, *Greenhouse Gas Emissions and Climate Change*; 4.7, *Hazards and Hazardous Materials*; 4.8, *Hydrology and Water Quality*; 4.10, *Noise and Vibration*; and 4.12, *Transportation, Circulation, and Parking*. The proposed upgrades to the existing electrical infrastructure would not result in impacts related to aesthetics and visual resources, air quality and health risk, GHG emissions and climate change, hydrology and water quality, noise and vibration, or transportation, circulation, and parking.

As discussed in Section 4.4, *Cultural Resources*, there is a potential that historical archaeological resources, specifically CA-SDI-15118H, could be unearthed during project construction, including the electrical trenching work to the Sampson Street Substation. As such, the proposed project could significantly affect CA-SDI-15118H if portions of the site were unearthed during construction of the proposed energy infrastructure improvements (**Impact-CUL-1**). Additionally, Old Paralac Deposits are present underneath the entire project site and are designated as having a high sensitivity for paleontological resources. As such, ground-disturbing activities associated with the trenching work within undisturbed soils have the potential to significantly affect highly sensitive paleontological resources (**Impact-CUL-2**).

In addition, as discussed in Section 4.5, *Geology and Soils*, the proposed project would include excavation of soil, construction of structures, and electrical infrastructure upgrades within areas of high liquefaction and unstable soil. These activities could loosen soil compaction and otherwise disturb the existing geologic conditions, thus exacerbating the potential for liquefaction, lateral spreading, and soil collapse to occur, if compliance with regulations does not occur (**Impact-GEO-1** and **Impact-GEO-2**).

Furthermore, as discussed in Section 4.7, *Hazards and Hazardous Materials*, there is a potential that contaminated soils may be encountered during construction and excavation activities for the proposed project, including the proposed electrical trenching work to the Sampson Street Substation. In the event contaminated soils are encountered, there is a potential that hazardous materials could be released into the environment and the existing hazardous conditions could be exacerbated (**Impact-HAZ-1**). Overall, these significant construction-related impacts, while not specifically associated with the proposed upgrades to the existing electrical infrastructure, would be more severe with these infrastructure upgrades than without. Therefore, the proposed electrical

infrastructure improvements would contribute to significant construction-related impacts (**Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, and Impact-HAZ-1**) (**Impact-UTIL-1**).

Construction staging at the offsite R.E. Staite staging site would not result in impacts on energy infrastructure, as this site is currently used for staging construction equipment and would not expand or construct utilities.

Level of Significance Prior to Mitigation

Construction

Construction of the proposed project would not result in the wasteful, inefficient, or unnecessary use of energy, nor would it result in the construction of new energy system infrastructure. However, the proposed project would result in the expansion of existing infrastructure, the construction of which could cause significant environmental effects. Potentially significant impact(s) include:

Impact-UTIL-1: Construction of Utility Improvements Would Contribute to Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, and Impact-HAZ-1, as described under Threshold 1.

Operation

Operation of the proposed project would not result in the wasteful, inefficient, or unnecessary use of energy, nor would it result in the construction of new energy system infrastructure or the expansion of existing infrastructure, the construction of which could cause significant environmental effects. Impacts would be less than significant.

Mitigation Measures

Construction

Implement **MM-CUL-1, MM-CUL-2, MM-GEO-1, and MM-HAZ-1** through **MM-HAZ-4** as described above.

Operation

No mitigation is required, but **MM-GHG-1** through **MM-GHG-5** as described in Section 4.6, *Greenhouse Gas Emissions and Climate Change*, would further reduce the project's energy demand and reduce fossil fuel use.

Level of Significance after Mitigation

Construction

Implementation of **MM-CUL-1, MM-CUL-2, MM-GEO-1, and MM-HAZ-1** through **MM-HAZ-4** would reduce **Impact-UTIL-1** as it relates to cultural resources, geology and soils, and hazards and hazardous materials to less-than significant levels for the reasons described in Sections 4.4, *Cultural Resources*, 4.5, *Geology and Soils*, and 4.7, *Hazards and Hazardous Materials*. Therefore, impacts associated with the proposed electrical infrastructure improvements would be less than significant.

Operation

Impacts would be less than significant.

5.1 Overview

This chapter considers the cumulative effects of past, present, and reasonably foreseeable future projects and the proposed project's contribution to these effects. 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 (August 17, 2016).

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.

- Air Quality and Health Risk
- Greenhouse Gas and Climate Change (up to 2021)
- Utilities and Energy Use

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 (post-2021)
- Noise and Vibration (Construction)
- Transportation, Circulation, and Parking

The proposed project's contribution to all other cumulative impacts would not be cumulatively considerable.

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	Mitigation would reduce the project's incremental contribution to cumulative impacts related to plan consistency.
Impact-C-AQ-2: Emissions in Excess of Cumulative Thresholds during Construction	MM-AQ-2: Use Low-VOC Interior and Exterior Coatings during Construction MM-AQ-3: Limit Soil Hauling Truck County during Excavation to Reduce Daily Construction-Related Emissions	Less than Cumulatively Considerable	Mitigation would reduce the project's incremental contribution to cumulative impacts related to construction emissions.
Greenhouse Gas Emissions and Climate Change			
Impact-C-GHG-1: Inconsistency with District Climate Action Plan and Only Partial Consistency with Applicable GHG Reduction Plans, Policies, and Regulatory Programs through 2021	MM-GHG-1: Implement Diesel Emission-Reduction Measures During Project Construction MM-GHG-2: Comply with San Diego Unified Port District Climate Action Plan Measures MM-GHG-3: Implement Sustainability Features during Project Operations MM-GHG-4: Implement a Renewable Energy Project on Site, on Tidelands, or Within Offsite Tidelands Adjacent to Community or Member City, or Purchase the Equivalent Greenhouse Gas Offsets from a California Air Resources Board Approved Registry or a Locally Approved Equivalent Program	Less than Cumulatively Considerable	Mitigation would reduce the project's incremental contribution to cumulative impacts related to GHG emissions and reduction targets and plans through 2021.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
Impact-C-GHG-2: GHG Emissions in Excess of Post-2020 Targets for Landside Uses and Recreational Boating	Implement MM-GHG-1 through MM-GHG-4 MM-GHG-5: Implement a Renewable Energy Project on Site, on Tidelands, or Within Offsite Tidelands Adjacent to Community or Member City, or Purchase the Equivalent Greenhouse Gas Offsets from a California Air Resources Board Approved Registry or a Locally Approved Equivalent Program	Cumulatively Considerable and Unavoidable	Based on available science and the current regulatory scheme, reduction targets that would enable the landside uses and recreational boating buildout to reduce its fair share of post-2020 GHG emission are unknown at this time. In addition, there is no statewide guidance document to indicate how to achieve the deep reductions set by Executive Order (EO) S-03-05 and EO B-30-15.
Noise and Vibration			
Impact-C-NOI-1: Exacerbate Significant Construction Noise Levels if Cumulative Construction Activities Overlap	MM-NOI-1: Avoid or Reduce Construction Noise from Impact-Type Pile Driving During Both Landside and Marina Construction MM-NOI-2: Notify Users of Nearby Recreational Areas MM-NOI-3: Reduce Construction Noise from Other (Non-Pile Driving) Construction Activities	Cumulatively Considerable and Unavoidable	Mitigation would reduce the project's contribution to cumulative construction noise impacts, but not to a level less than significant if construction activities for related projects within 1,500 feet of the proposed project site were to overlap with proposed project construction.
Transportation, Circulation, and Parking			
Impact-C-TRA-1: Near-Term Construction-Related Impact on the Roadway Segment of 28 th Street between National Avenue and Boston Avenue	MM-TRA-1: Transportation Demand Management Plan	Cumulatively Considerable and Unavoidable	There is uncertainty regarding the timing of future construction activities and the potential that projects may overlap; impacts may remain significant even after the adoption of all feasible mitigation measures.

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: Near-Term Construction-Related Impacts on Study Area Intersections: Sampson Street/Harbor Drive; I-5 Southbound On-Ramp/Boston Avenue	MM-TRA-1: Transportation Demand Management Plan	Cumulatively Considerable and Unavoidable	There is uncertainty regarding the timing of future construction activities and the potential that projects may overlap; impacts may remain significant even after the adoption of all feasible mitigation measures.
Impact-C-TRA-3: Failing Roadway Segment – Harbor Drive between Laurel Street and Hawthorne Street (Near-Term)	No feasible mitigation identified to improve operations.	Cumulatively Considerable and Unavoidable	Near-term operation of the proposed project would worsen conditions along Harbor Drive between Laurel Street and Hawthorne Street, which operates at a level of service (LOS) F, by increasing the volume to capacity (V/C) ratio by more than 0.01.
Impact-C-TRA-4: Failing Intersections in AM Peak Hour in Near-Term Cumulative Conditions: 16 th Street/F Street; Logan Avenue/I-5 Southbound Off-Ramp; and Logan Avenue/I-5 Southbound On-Ramp	16 th Street/F Street: no feasible mitigation identified to improve operations. MM-C-TRA-1: Signalization of Logan Avenue/I-5 Southbound Off-Ramp MM-C-TRA-2: Signalization of Logan Avenue/I-5 Southbound On-Ramp	Cumulatively Considerable and Unavoidable	Operation of the proposed project would worsen existing delays at failing study area intersections during the AM peak hour under near-term conditions.
Impact-C-TRA-5: Failing Intersections in PM Peak Hour in Near-Term Cumulative Conditions: First Avenue/Beech Street; 14 th Street/G Street; 15 th Street/F Street; 16 th Street/G Street; 16 th Street/Island Avenue; 16 th Street/K Street; 17 th Street/G Street; 19 th Street/J Street; Logan Avenue/I-5 Southbound On-Ramp	First Avenue/Beech Street: no feasible mitigation identified to improve operations. MM-C-TRA-2: Signalization of Logan Avenue/I-5 Southbound On-Ramp MM-C-TRA-3: New Travel Lane on G Street (3 Percent Fair-Share) MM-C-TRA-4: Signalization of the Intersection of 15 th Street and F Street MM-C-TRA-5: New Travel Lane on G Street (2 Percent Fair-Share) MM-C-TRA-6: Signalization of the Intersection of 16 th Street and Island Avenue MM-C-TRA-7: Signalization of the Intersection of 16 th Street and K Street	Cumulatively Considerable and Unavoidable	Operation of the proposed project would worsen existing delays at failing study area intersections during the PM peak hour under near-term conditions.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
	MM-C-TRA-8: Signalization of the Intersection of 17 th Street and G Street MM-C-TRA-9: Restriping Left-Turn Lane on J Street		
Impact-C-TRA-6: Failing Freeway Mainline Segment during AM Peak Hour under Near-Term Cumulative Conditions: I-5 Northbound, between Grape Street and First Avenue	MM-TRA-5: Compliance with San Diego Forward: The Regional Plan, I-5 Operational Improvements	Cumulatively Considerable and Unavoidable	Operation of the proposed project would worsen the existing V/C ratio along northbound I-5 between Grape Street and First Avenue, which currently operates at LOS E, by 0.012 during the AM peak period.
Impact-C-TRA-7: Failing Roadway Segment – Harbor Drive between Laurel Street and Hawthorne Street (Future Year)	No feasible mitigation identified to improve operations.	Cumulatively Considerable and Unavoidable	Long-term operation of the proposed project would worsen conditions along Harbor Drive between Laurel Street and Hawthorne Street, which operates at an LOS F, by increasing the V/C ratio by more than 0.01.
Impact-C-TRA-8: Failing Intersections in AM Peak Hour in Future Year Cumulative Conditions: 16 th Street/F Street; 15 th Street/F Street; and 17 th Street/G Street	16 th Street/F Street: no feasible mitigation identified to improve operations MM-C-TRA-4: Signalization of the Intersection of 15 th Street and F Street MM-C-TRA-8: Signalization of the Intersection of 17 th Street and G Street	Cumulatively Considerable and Unavoidable	Operation of the proposed project would worsen existing delays at failing study area intersections during the AM peak hour under Future Year conditions.
Impact-C-TRA-9: Failing Intersections in PM Peak Hour in Future Year Cumulative Conditions: Front Street and Broadway; First Avenue and Broadway; 11 th Avenue and Broadway; 11 th Avenue and G Street; 11 th Avenue and Market Street; Park Boulevard and G Street; 13 th Street and G Street; 14 th Street and G Street; 15 th Street and F Street; 16 th Street and G Street; 16 th Street and K Street; Imperial Avenue	Front Street/Broadway: no feasible mitigation identified to improve operations First Avenue/Broadway: no feasible mitigation identified to improve operations 11 th Avenue/Broadway: no feasible mitigation identified to improve operations 11 th Avenue/Market Street: no feasible mitigation identified to improve operations MM-C-TRA-4: Signalization of the Intersection of 15 th Street and F Street MM-C-TRA-5: New Travel Lane on G Street (2	Cumulatively Considerable and Unavoidable	Operation of the proposed project would worsen existing delays at failing study area intersections during the PM peak hour under Future Year conditions.

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
and 16 th Street; and 17 th and G Streets	<p>Percent Fair-Share)</p> <p>MM-C-TRA-7: Signalization of the Intersection of 16th Street and K Street</p> <p>MM-C-TRA-8: Signalization of the Intersection of 17th Street and G Street</p> <p>MM-C-TRA-10: New Travel Lane on G Street (1 Percent Fair Share)</p> <p>MM-C-TRA-11: New Travel Lane on G Street (2 Percent Fair Share)</p> <p>MM-C-TRA-12: New Travel Lane on G Street (1 Percent Fair Share)</p> <p>MM-C-TRA-13: New Travel Lane on G Street (3 Percent Fair Share)</p> <p>MM-C-TRA-14: Restripe Northbound and Southbound Approaches to Imperial and 16th Street</p>		
Impact-C-TRA-10: Failing Freeway Mainline Segment during AM Peak Hour under Future Year Cumulative Conditions: I-5 Northbound, between Grape Street and First Avenue, First Avenue and SR-163, B Street and SR-94, and SR-94 and Imperial Avenue; and during the PM Peak Hour I-5 Southbound between First Avenue and SR-163 and B Street and SR-94	MM-TRA-5: Compliance with San Diego Forward: The Regional Plan, I-5 Operational Improvements	Cumulatively Considerable and Unavoidable	<p>Operation of the proposed project would cause a significant change in the V/C ratio (i.e., add more than 0.010 for LOS E or 0.005 for LOS F) along the following northbound I-5 segments that are projected to operate at LOS F during the AM peak period:</p> <ul style="list-style-type: none"> • Between Grape Street and First Avenue – 0.011 • Between First Avenue and SR-163 – 0.012 • Between B Street and SR-94 – 0.012 • Between SR-94 and Imperial Avenue – 0.010 <p>In addition, the proposed project would cause a significant change in the V/C ratio along the following</p>

Summary of Potentially Significant Impact(s)	Summary of Mitigation Measure(s)	Level of Significance After Mitigation	Rationale for Finding After Mitigation
			<p>southbound I-5 segments that are currently operating at LOS F:</p> <ul style="list-style-type: none"> Between First Avenue and SR-163 – 0.008 Between B Street and SR-94 – 0.010
Impact-C-TRA-11: Cumulatively Considerable Contribution to a Cumulative Parking Impact	MM-TRA-8: Implement a Parking Management Plan that Provides Parking Management Strategies	Cumulatively Considerable and Unavoidable	Reasonably foreseeable future projects are expected to contribute to a parking deficit in the downtown area. The proposed project's contribution to the cumulative parking impact from past, present, and reasonably foreseeable future projects would be cumulatively considerable and significant.
Utilities and Energy Use			
Impact-C-UTIL-1: The Proposed Project Would Generate Solid Waste that Would Exceed the City's Threshold	MM-C-UTIL-1: Prepare a Waste Management Plan	Less than Cumulatively Considerable	MM-C-UTIL-1 would ensure the project limits its solid waste to a minimum and is fully compliant with all solid waste laws.

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 2035 future year conditions on the traffic volumes forecasted in the adopted Downtown San Diego Mobility Plan (June 2016). 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 Urban Water Management Plan (UWMP) for the City of San Diego.

5.2.1 Cumulative Project Lists

Based on information provided by the District and the City of San Diego, 97 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	Marriott Marquis San Diego Hotel and Marina Facilities	333 West Harbor Drive	This project included the demolition of the former 131,500-square-foot Marriott Hall to accommodate a new facility containing 71,800 square feet of ballroom and meeting space. The new Marriott Hall, which includes a ballroom, an exhibit hall space, an outdoor event area, and a new marina bathroom facility, increased the gross building area from 131,500 square feet to 169,400 square feet, and the total building footprint increased from 60,900 square feet to 80,400 square feet. The project did not increase the number of hotel rooms at the hotel.	Completed.
2	Sprint Cell Tower	224 Marina Park Way	The project proposes to construct, operate, and maintain an unmanned wireless telecommunications facility and equipment room located at Embarcadero Marina Park South.	Completed.
3	Dole Fresh Fruit Refrigerated Rack Project	850 B. water Street, within the District's Tenth Avenue Marine Terminal	The project involves installation of 5 new refrigerated racks with an additional 94 electrical outlets, which would increase outlets from 669 to 763. Improvements would increase storage capacity within the existing footprint that would accommodate up to three new larger ocean-going vessels.	Completed.
4	Ballpark Village Parcel C	On the block bounded by Park Boulevard to the west and north, trolley tracks/12 th Avenue alignment to the east, and Imperial Avenue to the south.	The project proposes to remove the existing surface parking lot and develop 646 residential units at the project site. The residential units would include 280 condominiums and 366 apartments. There would also be 41,505 square feet of gross retail space.	In construction from 2015 to 2018.
5	Ballpark Village Parcel D	Southwest corner of the 11 th Avenue/Imperial Avenue intersection	The project would include 1,800 hotel rooms and meeting space.	In construction from 2015 to 2018.

Project #	Name	Location	Description	Status
6	Navy Broadway Complex Project	Broadway/Harbor Drive/Pacific Coast Highway	The project involves redevelopment of a 13.7-acre parcel with 2.9 million square feet of office space, including a 351,000-square-foot museum; 213,000-square feet of retail and restaurant space; more than 3,100 parking spaces; and a 1.9 acre public park at the corner of Broadway and Harbor Drive.	Development Agreement, Master Plan, Phase I Buildings Consistency Determination approved in 2009. Construction began in 2017.
7	Pacific and Broadway Parcel #9 Condos and Retail	Pacific Coast Highway, Broadway, E Street, Rail Corridor	The project proposes 232 condominiums, 16,000 square feet of retail.	Began construction December 2015, anticipated to be completed in 2017.
8	Pacific and Broadway Parcel #1 Condos and Retail	Pacific Coast Highway and Broadway	The project proposes 306 condominiums, 15,000 square feet of retail.	Pending approval.
9	Park and G	South side of G Street between Park Boulevard and 13 th Street	The project proposes to construct 5,500 square feet of retail space and 208 mid-rise and ground-level apartments. In addition, the building will include common areas for residents at the ground floor and a rooftop deck.	Completed.
10	Pinnacle Towers	15 th Street and Island Street	This project will be located on the block bounded by 14 th Street, 15 th Street, Island Avenue, and J Street in downtown San Diego. The project includes 442 apartments, 451 condos, and 17,100 square feet of commercial space.	First tower is complete; second is under construction; anticipated completion in 2019.
11	San Diego Continuing Education – Cesar Chavez Campus	Intersection of National Avenue and Cesar E. Chavez Parkway	The new Cesar E. Chavez Campus will be a 67,924-square-foot school facility with 22 classrooms to serve 720 students. The facility will include a multi-purpose room and administrative offices.	Completed.
12	Metro Center Project	West side of National Avenue between Commercial and 16 th Streets	This project 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.	Proposed, not entitled.

Project #	Name	Location	Description	Status
13	Lane Field North and South Hotel Project	North side of Broadway between North Harbor Drive and Pacific Highway	This project involves two hotels (totaling 800 rooms), parking facilities, and retail uses on a 5.8-acre parcel formerly used as a parking lot. Construct park/plaza on western 150-feet of property.	Construction of Lane Field North was completed in April 2016. Lane Field South began in June 2016. Construction is anticipated to be completed in Fall 2018.
14	Public Viewing Platform	1050 North Harbor Drive	This project involved demolition of a vacant approximately 2,400-square-foot building, supported by piles over the San Diego Bay. The building was most recently used by the Bay Café as a restaurant, which ceased operations in January 2014. The proposed project will result in the demolition of only the building, leaving the concrete pad and supporting piles and creating a public access area with surface improvements (i.e., railing, enhanced paving or bricks, benches, or tables and chairs) that match the North Embarcadero Visionary Plan (NEVP) Phase 1 project adjacent to the project site. The public access area will be open to the public at all times. The project also includes structural repairs to some of the concrete pile extension jackets in order to preserve the platform structure and extend its useful life.	Completed.
15a*	Wyndham Hotel Renovations	1355 North Harbor Drive	The project proposes the demolition of 28,685 square feet of existing facilities, to relocate the hotel entrance to Pacific Highway and A street, construction of approximately 70,303 square feet to include a new lobby, pool deck, retail and pavilions, 2.8 acres of public space, and the addition of 141 parking spaces on a new parking deck on the existing parking structure. This project may include a setback park along its western edge.	Proposed, not entitled.

Project #	Name	Location	Description	Status
15b*	Potential 205-foot setback park pursuant to NEVP Phase 1 CDP Conditions and MOU	1355 North Harbor Drive, San Diego, CA 92101	This project involves two alternative 205-foot waterfront setback park as specified in the NEVP Phase 1 CDP dated April 18, 2011 (District Clerk Document No. 58230) and Memorandum of Understanding (MOU) entered into on November 9, 2010 (District Clerk Document No. 57019). The alternate 205-foot setback park is part of the 15 “planning elements” to be analyzed on equal footing and considered as part of a proposed amendment to the Port Master Plan or as part of the Port Master Plan Update.	Anticipated to be part of the Port Master Plan Update EIR scheduled for release in 2018
16	B Street Mooring Dolphin Project	B Street Pier, 1140 North Harbor Drive	Project proposes installation of 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.
17	Tenth Avenue Marine Terminal Redevelopment Plan and Demolition and Initial Rail Component Project	686 Switzer Street	<p>This project’s EIR includes a program- and project-level 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.</p> <p>The project-level improvements would be completed by June 30, 2020, and involve demolition of the 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.</p>	EIR was certified on December 13, 2016. Construction of Phase 1 to begin in 2017.

Project #	Name	Location	Description	Status
18	North Embarcadero Visionary Plan Phase 1	North Harbor Drive from F Street to Ash Street, and West Broadway from North Harbor Drive to Pacific Highway	The project involved public access improvements to North Embarcadero, including: realign North Harbor Drive from B Street Pier to south of the Broadway Pier eastward; construct 105-foot-wide esplanade, public plaza at the foot of West Broadway, gardens, shade pavilions, ticket kiosks, information building, walk-up café, restroom, median improvements on West Broadway between North Harbor Drive and Pacific Highway; and restripe North Harbor Drive to provide an additional turn lane to the Grape Street/North Harbor Drive intersection.	Completed.
19	Environmental Impact Review for North Embarcadero Plan and Port Master Plan Amendment	North Harbor Drive between Laurel Street and G Street	This project consists of environmental review associated with the realignment of North Harbor Drive between Laurel Street and G Street in order to define the future character of North Embarcadero consistent with conditions specified in the California Coastal Commission-issued Coastal Development Permit (CDP) dated April 18, 2011 (District Clerk Document No. 58230) and an MOU entered into on November 9, 2010 (District Clerk Document No. 57019). The project will analyze plans for key public infrastructure improvements related to parks and open space, parking, traffic, and multi-modal circulation, including an analysis of 15 “planning elements” described in the CDP and MOU. This will be considered as part of the Port Master Plan Update.	Anticipated to be part of the Port Master Plan Update EIR scheduled for release in 2018.
20	B Street Shore Power	B Street Pier and Broadway Pier, 1140 and 1000 North Harbor Drive	Project consists of infrastructure components to provide shore power to existing terminal operations at the B Street and Broadway Piers (three berths) with the result of reducing air pollutant emissions and greenhouse gas 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.	Initial phase completed in December 2010. The second phase is scheduled to be completed in 2017.

Project #	Name	Location	Description	Status
21	Bayside Fire Station (City of San Diego)	Southeast corner of Pacific Highway and Cedar Street	Project proposes a three-bay City of San Diego fire station.	Construction began May 2016 and is anticipated to be completed mid-2017.
22	Pacific Gate Residential Project	Southeast Corner of Pacific Highway and Broadway	Project proposed a 41-story residential tower comprising 217 residential units and 16,027 square feet of retail commercial space, and 419 parking spaces.	Design approved in 2016. Construction estimated to be completed in winter 2017.
23	B Street Pier Cruise Ship Terminal Maintenance Projects	B Street Pier, 1140 North Harbor Drive	These are projects on B Street Pier required to address routine maintenance requirements to improve safety, security, integrity, aesthetics, and comfort of this facility. Roof replacement, canopy improvements, roll-up and rolling rate doors installation, fire system upgrades, clean and paint ceilings and hangers, mobile gangway and platform painting, and a photovoltaic system.	Approved by the District in early 2012 and incorporated into District's Asset Management Program (AMP). Currently in design phase for 2017, followed with construction in 2018.
24	1919 Pacific Highway	East side of Pacific Coast Highway between Grape and Cedar Streets	Project proposes 110 apartments.	Pending approval.
25	Harbor View Hotel	Block bounded by Pacific Coast Highway, Ivy, California, and Hawthorne Streets	Project proposed construction of a six-story (60-foot tall) building containing two hotels with a total of 364 hotel rooms and 182 parking spaces.	Completed.
26	BAE Systems-Pier 1 North Drydock, Associated Real Estate Agreements and Removal of Cooling Tunnels Project	2205 East Belt Street	Project proposes replacement of a wet berth with a new floating drydock and removal of subsurface cooling tunnels. Dredging activities are estimated to result in approximately 395,000 cubic yards of sediment.	Dredging and construction began in 2016.
27	460 16 th Street	15 th Street/16 th Street/J Street/Island Avenue	Project proposes 368 apartments and 18,000 square feet of retail.	Grading underway, to be completed March 2018.
28	13 th , Park and C	South side of C Street between Park Boulevard and 13 th Street	Project proposes 117 apartments and 9,000 square feet of retail.	Grading underway, to be completed February 2018.

Project #	Name	Location	Description	Status
29	1435 Imperial Avenue	South side of Imperial Avenue between 14 th and 15 th Streets	Project proposes 63 living units (62 affordable).	Up to 1 st floor complete; due to be completed January 2018.
30	Airborne San Diego	1401 Imperial Avenue	Project proposed a 21,000 square feet of indoor sky diving facility.	Nearing completion, was to be completed July 2016.
31	Alexan San Diego	Bordered by 13 th Street, 14 th Street, J Street, and K Street	Project proposes 320 apartments and 1,000 square feet of retail.	Grading underway, to be completed December 2017.
32	Atmosphere	Southwest corner of Beech and 5 th Avenue	Project proposed 205 apartments (203 affordable), with 1,000 square feet of retail.	Exterior finishes underway; to be finished April 2017.
33	Broadstone Makers Quarters	Bordered by Broadway, 16 th Street, 17 th Street, and E Street	Project proposed 269 apartments, with 5,000 square feet of retail.	Grading underway; to be completed December 2017.
34	Church of Scientology	West side of 4 th Avenue between A and Ash Street	Project proposed a 16,000-square-foot addition.	Completed.
35	F11	North side of F between 11 th Avenue and Park Boulevard	Project proposes 99 apartments and 3,000 square feet of retail.	Grading underway; to be completed May 2018.
36	HG Fenton India/Date	India Street/Date Street/Columbia Street	Project proposed on the North Side: 97 apartments, with 14,000 square feet of retail; on the South Side: 28 apartments; (11 affordable), with 3,000 square feet of retail; also includes an 11,000-square-foot public plaza.	Up to 1 st floor; to be completed June 2017.
37	Hotel Churchill	Northeast corner 9 th Avenue and C Street	Project proposed 73 living units (72 affordable), with 3,000 square feet of retail.	Completed.
38	Idea 1	West side of 13 th Street between F Street and E Street	Project proposed 292 apartments, with 10,000 square feet of retail.	Up to 1 st floor; to be completed July 2017.
39	Kettner and Ash	Southwest corner of Kettner Boulevard and Ash Street	Project proposed 285 condominiums, with 12,000 square feet of retail.	Grading underway; to be completed December 2018.
40	Kettner Lofts	East side of Kettner Boulevard between Hawthorne Street and Ivy Street	Project proposed 133 apartments, with 10,000 square feet of retail.	Grading underway; to be completed December 2017.

Project #	Name	Location	Description	Status
41	Mitra	West side of 15 th Street between J Street and K Street	Project proposed 10 apartments.	Completed.
42	Palatine	North side of Fir Street between Columbia Street and State Street	Project proposed 101 apartments.	Garage underway; to be completed October 2017.
43	Pendry Hotel	North side J street between 5 th Avenue and 6 th Avenue	Project proposed 317-room hotel, with 5,000 square feet of retail.	Completed.
44	Prime	Southeast corner of Columbia and Grade	Project proposed 9 apartments.	Completed.
45	San Diego Central Courthouse	Bordered by Union Street, State Street, B Street, and C Street	Project proposed a 704,000-square-foot County Courthouse.	Completed.
46	SR-1	1929–1933 Columbia	Project proposed 24 apartments.	Completed.
47	The Rey Phase I	Bordered by 8 th Avenue, 9 th Avenue, A Street, and B Street	Project proposed 480 apartments.	Completed
48	11 TH and Broadway	East side of 11 th between Broadway and E Street	Project proposes 618 apartments (39 affordable), with 11,000 square feet of retail.	Pending issuance of building permits; to be completed June 2019.
49	15 TH and G	Northeast corner of 15 th Street and G Street	Project proposes 28 apartments, with 3,000 square feet of retail.	Pending completion of building plans.
50	1 st and Beech	South side of Beech Street between 1 st and 2 nd Streets	Project proposes 247 apartments, with 15,000 square feet of retail	Pending completion of building plans.
51	330 13 th Street	North side of K Street between Park Boulevard and 13 th Street	Project proposes 208 apartments, with 5,000 square feet of retail.	Pending issuance of building permits; to be completed June 2019.
52	401 West Ash	Southwest corner of Ash Street and State Street	Project proposes 239-room hotel, with 4,000 square feet of retail.	Pending issuance of building permits.
53	450 B Office Building	North side of B Street between 4 th Avenue and 5 th Avenue	Project proposes 50,000 square feet of office addition, with 9,000 square feet of retail addition.	Pending completion of building plans.
54	4 th and J	North side of J Street between 3 rd Avenue and 4 th Avenue	Project proposes 170 apartments.	Pending completion of building plans.
55	520 West Ash	Northwest corner of Ash Street and Columbia Street	Project proposes 220 apartments, with 5,000 square feet of retail.	Pending issuance of building permits; to be completed February 2019.

Project #	Name	Location	Description	Status
56	7 th and A Mixed Use Development	North side of A Street between 7 th Avenue and 8 th Avenue	Project proposes 256 apartments, with 12,000 square feet of retail.	Pending completion of building plans.
57	915 Grape Street	Southwest corner of Grape Street and California Street	Project proposed 70 apartments, with 1,500 square feet of retail.	Pending issuance of building permits.
58	AC Hotel	743 5 th Avenue	Project proposes 145-room hotel, with 9,000 square feet of retail.	Pending completion of building plans.
59	Alexan Little Italy	Bordered by State Street, Columbia Street, Hawthorn Street, and Grape Street	Project proposes 85 apartments, with 4,000 square feet of retail.	Pending issuance of building permits; to be completed September 2018.
60	Blue Sky Phase 2	Bordered by 8 th Avenue, 9 th Avenue, A Street and B Street	Project proposes 459 apartments.	Pending completion of building plans.
61	Cedar Park	Southeast corner of India Street and Cedar Street	Project proposed a 4,904 square-foot new restaurant.	Pending issuance of building permits.
62	Fairfield Marriott	831 6 th Avenue	Project proposes Cedar Park 154-room hotel.	Pending completion of building plans.
63	Gaslamp Brewing Company	East side of 17 th Street between G Street and Market Street	Project proposes 7,894 square feet of expansion of previously conforming structure for brew pub; outdoor use area.	Pending completion of building plans.
64	Horton Plaza CVS Additions	Bordered by 1 st Avenue, Broadway Circle, 4 th Avenue, and G Street	Project proposes 4,000 square feet of addition for CVS relocation.	Pending issuance of building permits.
65	Lucia Nel Cielo	Bordered by 16 th Street, 17 th Street, F Street, and G Street	Project proposes 424 apartments, with 3,000 square feet of retail.	Pending completion of building plans.
66	Makers Quarter Block D	Northeast corner of 15 th Street and F Street	Project proposes 44,000 square feet of office building, with 9,000 square feet of retail.	Pending issuance of building permits.
67	Moxy Hotel	East side of 6 th Avenue between E and F Streets	Project proposes a 126-room hotel.	Pending completion of building plans.
68	Pacific Heights	Bordered by A Street, B Street, 11 th Avenue, and Park Boulevard	Project proposes 279 apartments, with 8,000 square feet of retail.	Pending completion of building permits.
69	Sixth Avenue Suites	East side of 6 th Street between Ash and Beech Streets	Project proposes a 98-room hotel.	Pending issuance of building permits; to be completed March 2018.

Project #	Name	Location	Description	Status
70	Stadium View	10 th /11 th /G/Market	Project proposes 117 condominiums, with 6,000 square feet of retail.	Pending completion of building plans.
71	Streetlights Maker Quarter	F/15 th /G/16 th	Project proposes 293 apartments, with 23,000 square feet of retail.	Pending completion of building plans; to be completed June 2019.
72	The Block	C/Broadway/7 th /8 th	Project proposes 498 apartments, with 20,000 square feet of retail.	Pending issuance of building permits; to be completed June 2019.
73	1122 Fourth Avenue	North side of C between 3 rd and 4 th	Project proposes 282 apartments, with 12,000 square feet of retail.	Pending approval.
74	1836 Columbia Street	West side of Columbia between Fir and Date Street	Project proposes 18 apartments.	Pending approval.
75	701 5 th Avenue	North side of G between 5 th and 6 th	Project proposes remodeling a theater building; with 566,000 square feet of retail.	Pending approval.
76	7 th and Island Hotel	Northwest corner of 7 th /Island	Project proposes a 324-room hotel.	Pending approval.
77	7 th and Market	Market/7 th /8 th /Island	Project proposes 125 apartments (34 affordable); 59 condominiums; 53 SRO units; 153-room hotel; 155,000 square feet of office; 39,000 square feet of retail.	Pending approval.
78	Citiplace	North side of Ash between 1 st and Front	Project proposes 147 apartments.	Pending approval.
79	Contour	West side of Columbia between Hawthorne/Ivy	Project proposes 10 apartments, with 2,500 square feet of retail.	Pending approval.
80	India and Beech	SW corner India/Beech	Project proposes 137 apartments, with 3,000 square feet of retail.	Pending approval.
81	Modera San Diego	East side of 14 th between K and L Streets	Project proposes 383 apartments.	Pending approval.
82	Nook East Village	Northwest corner 15 th /K	Project proposes 91 affordable SRO units, with 1,800 square feet of retail.	Pending approval.
83	Park and Market	Park/11 th /Market/G	Project proposes 427 apartments (85 affordable); 50,000 square feet of office; 21,000 square feet of retail.	Pending approval.
84	The Beacon	South side of C between 14 th and 15 th	Project proposes 44 affordable apartments.	Pending approval.

Project #	Name	Location	Description	Status
85	Shipyard Sediment Remediation Project	San Diego Bay Between Sampson Street extension to the north and Schley Street to the south from the shoreline to the U.S. Pierhead Line to the west and a portion of British Aerospace Systems facility, San Diego, CA 92113	Project consisted of the dredging of sediment adjacent to shipyards in the San Diego Bay; the dewatering, and possible solidification of the dredged material on-shore; potential treatment of decanted water; and the transport of the removed material to an appropriate landfill for disposal.	Completed.
86	Portside Pier Restaurant Redevelopment Project	1360 North Harbor Drive	Project proposes redevelopment of an existing waterfront restaurant with a new facility, including new pilings, piers, decking, and structure. Development involves demolition of an 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 increase slips from 2 to 12 boat slips.	The Board of Port Commissioners adopted the Mitigated Negative Declaration on December 13, 2016. Construction is anticipated to commence in 2018.
87	San Diego Symphony Bayside Performance Park Enhancement Project	Portion of Embarcadero Marina Park South, 224 Marina Park Way, San Diego, CA 92101	The project proposes construction of a permanent outdoor forum to facilitate concerts and events, including San Diego Symphony performances and rehearsals, guest seating, restrooms, ancillary structures, and public park improvements and amenities.	Draft EIR is in public review. Proposed, not entitled.
88*	San Diego Convention Center Phase III Expansion and Expansion Hotel as shown in	111 West Harbor Drive	The project proposed expansion of the existing SDCC that would add approximately 220,150 square feet of exhibit hall space, approximately 101,500 square feet of meeting rooms, and approximately 78,470 square feet of ballroom space to the existing	EIR certified and Port Master Plan Amendment (PMPA) approved by the District Board in September 2012. PMPA

Project #	Name	Location	Description	Status
	the Port Master Plan		<p>facility. Public amenities include a 5-acre rooftop park/plaza. It would be accessible to the public with lighted paths, seating areas, an open lawn/performance area, and several observation vistas. Spaces on the rooftop park/plaza would range from grand areas where events can take place to more intimate, contemplative areas. Does not involve any in-water work.</p> <p>The ballroom and meeting facility expansion would contain approximately 55,000 net square feet of total meeting space including a grand ballroom and break-out meeting space. The grand ballroom would be located atop the existing seven-story hotel parking facility adjacent to the hotel. At its highest point, the new grand ballroom would rise approximately 60 feet above the top floor of the existing parking deck. The Expansion Hotel would consist of a maximum of 500 guest rooms in a new guestroom tower and an adjacent ballroom/meeting facility. The new tower would consist of 24 guestroom levels atop 6 levels of lobby, amenity, meeting, and support spaces, including a 10,000-square-foot fitness/spa facility and up to 2,500 square feet of retail space. The height of the expansion tower would not exceed the height of the existing Hilton San Diego Bayfront Hotel tower.</p>	certified by the Coastal Commission in October 2013. The SDCC Phase III Expansion Project is currently unfunded and the San Diego Convention Center Corporation does not have real property rights to the site, but the City of San Diego has expressed interest in pursuing the project.
89	San Diego International Airport Master Plan – Northside Improvements	3225 North Harbor Drive, San Diego, CA	Project included the following: construction of a 6,500-space consolidated rental car (CONRAC) facility, a 2,170-space public surface parking lot, and 225,000 square feet of air cargo facilities on the north side of San Diego International Airport.	Construction completed end 2016. The CONRAC facility has been completed and is in operation. An associated observation park will be completed in 2017.
90	San Diego International Airport Master Plan – Parking Plaza	3225 North Harbor Drive, San Diego, CA	The San Diego Regional Airport Authority (SDCRAA) proposes to design and construct a parking plaza adjacent to Terminal 2 at the San Diego International Airport. The parking plaza would be a	The CDP was issued in August 2015. Construction is underway and

Project #	Name	Location	Description	Status
			three-story, 1,035 million square-foot, approximately 34- to 48-foot-high parking structure with 1,753 new parking spaces over an existing surface parking lot with 1,323 parking spaces for a total of 3,076 parking spaces; removal of 46 palm trees; landscaping; and 34,400 cubic yards (CY) of grading (31,800 CY cut, 2,600 CY fill).	anticipated to be completed summer of 2018.
91	Integrated Planning Process – Port Master Plan Update	Throughout District tidelands	This is a Comprehensive Update of the Port Master Plan that is anticipated to include new topical sections, or elements, to provide Baywide guidance related to Land and Water Use, Coastal Access and Recreation, Mobility, Natural Resources, Safety and Resiliency, and Economic Development.	Planning Phase – Program EIR under preparation.
92	Mitsubishi Cement Corporation	850 B. Water Street, within District's Tenth Avenue Marine Terminal	The project 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 annual number of customer truck trips estimated to be 20,000 or an average of less than 55 trucks per day of operation with a maximum number of trucks visiting the site at 192 per day.	Proposed, not entitled.
93	New Restaurant at Ferry Landing	1201 First Street, Coronado, CA 92118	The project includes the construction of approximately 7,200 square feet of indoor space and approximately 4,854 square feet of outdoor space for restaurant use. The total number of restaurant seats for both spaces is anticipated to be approximately 300. The height of the restaurant is anticipated to be approximately 24 feet above ground level. The project is designed to allow for accessibility between the existing parking areas and the shoreline public walkway. The project will provide pedestrian/bicyclist amenities to the existing observation deck adjoining the shoreline public walkway adjacent to the project site. The project will incorporate current Americans with Disabilities standards, energy efficient systems and lighting, additional recycling facilities, and water saving plumbing and irrigation systems.	Proposed, not entitled.

Project #	Name	Location	Description	Status
94	Harbor Island West Marina Redevelopment	2040 Harbor Island Drive, San Diego, CA 92101	The project involves demolition of 23,000 square feet of existing building and construction of 15,800 square feet of new office, deli, and retail, as well as reconfiguration of an existing marina. The project would expand the promenade from 8 to 12 feet and reduce boat slips from 620 to 603.	Proposed, not entitled.
95	San Diego-Coronado Bay Bridge Lighting Project	San Diego, CA 92113 and Coronado, CA 92118	The project proposes to illuminate the bridge columns with up-lighting and down-lighting.	Proposed, not entitled.
96	Lockheed Martin Company Marine Terminal Demolition Project	1160 Harbor Island Drive, San Diego, CA 92101	The project involves demolition of 5,500 square feet of building and removal of a pier and trolley rail.	Proposed, not entitled.
97	San Diego Bay and Imperial Beach Oceanfront Fireworks Display Events	Throughout District tidelands	The project proposes the addition of an Ordinance to the Port District Code that would establish a program to regulate fireworks. Specifically, the program would govern 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 the San Diego Bay and Imperial Beach Oceanfront. Four proposed new fireworks display events are 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.

*Represents sites that have been identified as having two proposed projects on the same project site. As a result, the project that represents the worst-case scenario has been included in the cumulative analysis for the proposed project (i.e., Wyndham Hotel with alternative 205-foot setback park). The SDCC Phase III Expansion occurs within the same project site as the proposed project. Therefore, the Phase III expansion would not be constructed with the implementation of the proposed project. However, the Expansion Hotel project, which would expand the existing Hilton San Diego Bayfront Hotel, and is included in the cumulative analysis.

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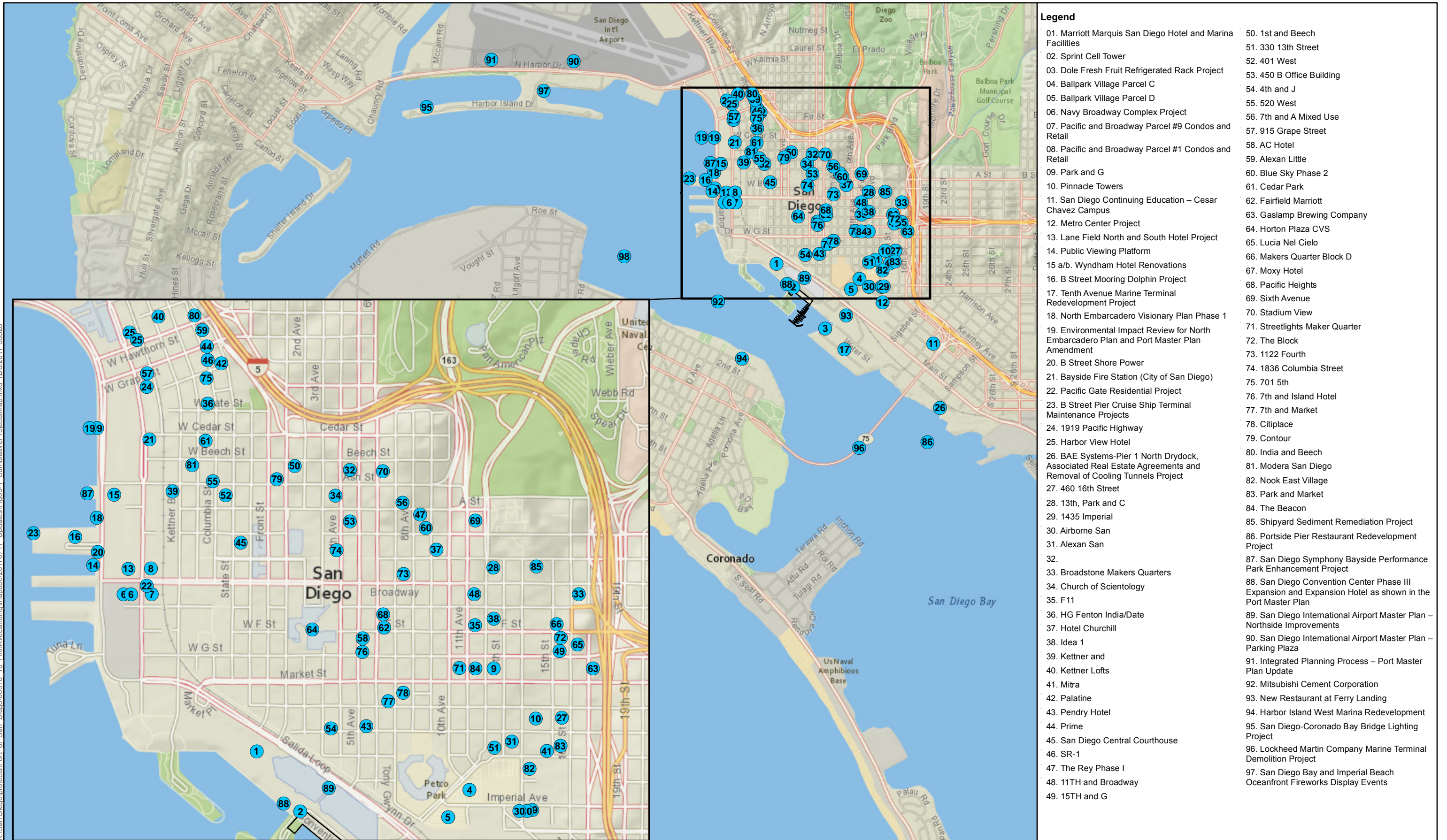


Figure 5-1
Cumulative Project Locations
Fifth Avenue Landing Project

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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 a 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 considerable, a cumulatively significant impact is identified, and mitigation is imposed.

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, mineral resources, or population and housing. 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; geology and soils; greenhouse gas emissions and climate change; hazards and hazardous materials; hydrology and water quality; land use and planning; noise and vibration; public services and recreation; transportation, circulation, and parking; and utilities and energy.

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 4.1.2.3, *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 downtown area. As such, the visual impact analysis area generally encompasses public viewing sites along the Coronado Bayfront and San Diego Bayfront, view corridors within the downtown San Diego community, and motorists' views from the San Diego–Coronado Bay Bridge.

5.3.1.2 Cumulative Effects

Past development projects have changed the land in and around the San Diego Bayfront and surrounding downtown area 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 future projects, have included, and will continue to include, development at or near the 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 Port Master Plan (PMP), Civic San Diego's design guidelines and Downtown Community Plan, and the City of San Diego's Land Development Code. Compliance with these applicable plans and regulations would also limit future glare and light impacts.

Therefore, although cumulative projects have continued to change the 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 within a waterfront location where designated vistas and expansive viewsheds of the Bay exist. As discussed under Section 4.1, *Aesthetics and Visual Resources*, the proposed project would displace existing designated vista areas (**Impact-AES-3**), create a new source of temporary nighttime lighting during construction (**Impact-AES-4**), and introduce a new source of glare with the addition of a market-rate hotel tower (**Impact AES-5**). All of these project-level impacts would be reduced to less-than-significant levels through mitigation that would require the restoration of vista areas (**MM-AES-4**), restrictions on the type of lighting used during construction (**MM-AES-5**), and the use of glare-reducing building materials (**MM-AES-6**).

However, the addition of a 44-story market-rate hotel tower to the project site would result in a significant adverse change to the viewsheds of two Key Observation Points due to obstructed views during both construction and operation (**Impact-AES-1** and **Impact-AES-2**). Mitigation measures **MM-AES-1** through **MM-AES-3** would reduce these impacts; however, **Impact-AES-1** and **Impact-AES-2** would be significant and unavoidable at the project level. 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 from new rooftop public plaza and park areas that would replace the existing ground-level parking lot. 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 San Diego Air Pollution Control District (SDAPCD) has established quantitative thresholds to determine whether a project's incremental contribution to emissions would be cumulatively considerable. Therefore, the County of San Diego screening level thresholds (SLTs) for cumulative air quality impacts, based on the SDAPCD Rule 20.1 for non-major stationary sources, 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 4.2.4.2, *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.

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 (PM_{2.5}), resulting in nonattainment status for 8-hour ozone under National Ambient Air Quality Standards (NAAQS) and nonattainment status for ozone, PM₁₀, and PM_{2.5} under California Ambient Air Quality Standards (CAAQS). Therefore, the emissions of concern within the SDAB are ozone precursors (ROG and NO_x), PM₁₀, and PM_{2.5}.

The nonattainment status for the entire County is a consequence of past and present projects and is subject to continued nonattainment status by the cumulative contribution of reasonably foreseeable future projects within the County, such as those listed in Table 5-2. 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 ARB (2005), recommend analyzing the effects of emissions from sources within 1,000 feet of proposed new emission sources or proposed new receptor locations. 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 nearby projects: Ballpark Village Parcel C (cumulative project #4), Ballpark Village Parcel D (cumulative project #5), Tenth Avenue Marine Terminal Redevelopment Project (cumulative project #17), San Diego Convention Center (SDCC) Phase III Expansion and Hotel (cumulative project #88), and the Mitsubishi Cement corporation (cumulative project #93). Construction of one or more of these projects would potentially overlap with the construction of the proposed project, which is scheduled to occur between 2018 and 2021. However, because past and present projects have resulted in the current nonattainment status for ozone (ROG and NO_x), PM₁₀, and PM_{2.5}, 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 PM_{2.5}) 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, *Air Quality and Health Risk*, the proposed project would require an amendment to the PMP, which would introduce new land use designations that were not previously considered in the PMP and subsequently in the Regional Air Quality Strategy (RAQS) and 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-C-AQ-1**). Mitigation measure **MM-AQ-1** requires coordination with SDAPCD to amend growth projections, which will ensure the RAQS and SIP adequately consider the redesignated land and water uses at the project site. Therefore, although there is a cumulative impact from past, present, and reasonably foreseeable future projects resulting in nonattainment status for some criteria pollutants in the air basin, the proposed project's incremental contribution to cumulative air emissions would not conflict with progress toward attainment of the air quality standards described in the RAQS and SIP after mitigation is incorporated.

As discussed under Threshold 2 of Section 4.2 and shown in Table 4.2-9, construction of the proposed project would contribute emissions to the cumulative condition. Emissions would be below County of San Diego SLTs and SDAPCD trigger levels for all pollutants, except VOC, which would exceed the established threshold during concurrent construction activity (**Impact-C-AQ-2**). With mitigation measure **MM-AQ-2** and **MM-AQ-3**, construction-related VOC emissions would be reduced to below San Diego County SLTs (see Table 4.2-11). Accordingly, while the effects from past, present, and reasonably foreseeable future projects are considered cumulatively significant, the proposed project's incremental contribution from construction emissions would be less than cumulatively considerable after mitigation is incorporated.

Additionally, as discussed under Threshold 2 of Section 4.2 and shown in Table 4.2-10, operational-related emissions would be below threshold levels for all pollutants. As with the construction phase, the effects from past, present, and reasonably foreseeable future projects are considered cumulatively significant, but the proposed project's incremental contribution from operational emissions would not result in a net increase in nonattainment pollutants. Consequently, the

proposed project's incremental contribution to cumulative air quality impacts during its operational stage would be less than cumulatively considerable.

As discussed under Threshold 4 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 carbon monoxide concentrations in excess of the NAAQS or CAAQS. However, project emissions during construction would exceed the San Diego County SLTs for VOC. While the incremental contribution to health effects from VOC cannot be traced solely to the proposed project, the contribution of project-related emissions is considered significant because the project would exceed thresholds 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 (**Impact-C-AQ-3**). With implementation of mitigation measure **MM-AQ-2** and **MM-AQ-3**, construction-related VOC emissions would be reduced to below thresholds, and the incremental contribution to health effects would be reduced to less than cumulatively considerable. Odors emitted during construction and operation would likewise not result in nuisance odors that would violate SDAPCD Rule 51 (see Threshold 5). 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 incremental contribution to cumulative impacts related to plan consistency and construction emissions would be cumulatively considerable prior to mitigation. Potential cumulatively considerable impact(s) include:

Impact-C-AQ-1: New Land Use Designations not Accounted for in the RAQS and SIP. The proposed project would redesignate Commercial Recreation to Street, Street to Commercial Recreation, Specialized Berthing to Recreational Boat Berthing, Ship Navigation Corridor to Recreational Boat Berthing, Promenade to Commercial Recreation, Park to Commercial Recreation, and Commercial Recreation to Park. 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.

Impact-C-AQ-2: Emissions in Excess of Cumulative Thresholds during Construction. Emissions during construction the proposed project would exceed the cumulative San Diego County SLTs for VOC.

5.3.2.5 Mitigation Measures

For **Impact-C-AQ-1**:

Implement **MM-AQ-1: Update the RAQS and SIP with New Growth Projections**, as described in Section 4.2, *Air Quality and Health Risk*.

For **Impact-C-AQ-2**:

Implement **MM-AQ-2: Use Low-VOC Interior and Exterior Coatings during Construction**, as described in Section 4.2, *Air Quality and Health Risk*.

Implement **MM-AQ-3: Limit Soil Hauling Truck Counts during Excavation to Reduce Daily Construction-Related Emissions**, as described in Section 4.2, *Air Quality and Health Risk*.

5.3.2.6 Level of Significance after Mitigation

After mitigation, the proposed project's incremental contribution to cumulative impacts related to plan consistency and construction emissions would be 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 downtown area, embarcadero and waterfront, and Tenth Avenue Marine Terminal. The geographic area for marine biological resources is limited to areas adjacent to, or otherwise linked to, the 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 otherwise with habitat 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 within present-day downtown San Diego 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 this portion of the San Diego Bay. The vast majority of sensitive habitat in downtown is no longer present. Therefore, there is little to no potential for cumulative projects to degrade terrestrial habitat downtown. Present and future projects would be required to be consistent with the City's Multiple Species Conservation Program Subarea Plan (if within the City's jurisdiction) and the Port of San Diego's and U.S. Navy's Integrated Natural Resources Management Plan, which identify important sensitive species and habitats in San Diego and in the San Diego Bay. Moreover, present and 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.

Present and future projects do have the potential to further degrade water quality within the area and thus the existing marine habitat. However, specific regulations such as the Municipal Permit and the Industrial General Permit are in place that would minimize continued degradation of the existing marine habitat. For example, projects over 1 acre in size are required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), while projects smaller than 1 acre are still required to comply with the City of San Diego's water quality regulations and the District's

Jurisdictional Runoff Management Plan (JRMP), depending on the jurisdiction within which the project would be located. The SWPPPs would identify short-term, project-specific best management practices (BMPs) for each project to minimize pollutants and/or sediments traveling via runoff, and long-term BMPs would be implemented based on the required Water Quality Control Plans using a combination of Site Design BMPs, Source Control BMPs, and Treatment Control BMPs. Implementation of both construction and operational BMPs would minimize harm to marine habitat from water runoff.

Three of the cumulative projects listed in Table 5-2 proposed in-water work, such as dredging and fill: BAE Systems-Pier 1 North Drydock Associated Real Estate Agreements and Removal of Cooling Tunnels Project (cumulative project #26), Shipyard Sediment Remediation Project (cumulative project #85), and Portside Pier Restaurant Redevelopment Project (cumulative project #86). In addition, marinas, piers, and other structures currently exist throughout the 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 the 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 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 will not affect any federally protected wetlands, or environmentally sensitive area. The project site does not contain any natural habitat and is not within the City of San Diego Multi-Habitat Planning Area or a wildlife corridor and would not contribute to any cumulative impacts. However, the proposed project would require the removal of some existing trees that have the potential to disturb or destroy nests protected by the MBTA and increase the risks for bird strikes (**Impact-BIO-3** and **Impact-BIO-4**, respectively). Mitigation required for the proposed project will ensure compliance with the MBTA and avoidance of impacts on nesting birds (**MM-BIO-3**), as well as ensure that birds in flight recognize structures from the open sky (**MM-BIO-4**).

As discussed in Section 4.3, *Biological Resources*, the waterside portion of the project site contains typical habitat for San Diego Bay inner harbors and marinas. Habitats within the project site 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 California least tern, 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, *Biological Resources*, the proposed project could affect sensitive species by potentially impairing water quality during construction and operation; disrupting or injuring California least tern, green sea turtles, and marine mammals during in-water pile driving activities; reducing open water habitat; resulting in a loss of open water habitat from marina operations and open water function from structural fill; reducing eelgrass habitat and productivity during construction; and resulting in a loss of eelgrass habitat from operation of the landside and waterside components of the project (**Impact-BIO-1, Impact-BIO-2, Impact-BIO-5, Impact-BIO-6, Impact-BIO-7, and Impact-BIO-8**). 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 **MM-BIO-1, MM-BIO-2, MM-BIO-5, MM-BIO-6, MM-BIO-7, MM-BIO-8, MM-HWQ-1, and MM-HWQ-2** to reduce project-level impacts to less-than-significant levels. These mitigation measures would enforce compliance with CWA Section 401 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, a boater education program and marina requirements, installation of navigation aids, avoidance or mitigation of eelgrass impacts, preparation of a Marina Best Management Practice Plan, and water quality sampling for copper. 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

A significant cumulative impact on cultural resources would result if the proposed project would contribute to cumulative impacts on significant historical resources, archaeological 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 the downtown area. 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 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 structures; visual impacts on the setting of a built environment resources; and/or noise impacts to the built environment resource.

5.3.4.2 Cumulative Effects

Past projects within the geographic scope have resulted in the urban development seen today. As discussed in Section 4.4, *Cultural Resources*, there are 14 historic period structures, 13 historic period archaeological sites, and no prehistoric archaeological sites within 0.5 mile of the proposed project. One previously recorded archaeological resource, a historic archaeology site (CA-SDI-15118H), is located adjacent to the proposed project area. Two historic period archaeological sites were discovered during Phases I and II of the SDCC project, and during construction monitoring for the Omni Hotel. Present and reasonably foreseeable future projects within the downtown area could result in impacts on important archaeological artifacts during construction activities that could disturb soils where there is potential to encounter isolated archaeological deposits or other items of historic value, such as the Ballpark Village Parcel C (cumulative project #4), Ballpark Village Parcel D (cumulative project #5), Metro Center Project (cumulative project #12), Lane Field North and South Hotel Project (cumulative project #13), and the Tenth Avenue Marine Terminal Redevelopment Project (cumulative project #17). However, discretionary projects are required to undergo CEQA review and, where there is a potential to impact cultural resources, CEQA compliance (Sections 15064.5 and 15126.4[b]). Health and Safety Code (Section 7050.5), 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 would continue to apply to present and reasonably foreseeable future projects within the cumulative study area.

While present and reasonably foreseeable future projects would likely continue to discover buried cultural resources or seek to modify existing historic structures, existing regulations and plans would reduce any potentially significant impacts, both individually and collectively, to less-than-significant levels. Therefore, cultural resource impacts from past, present, and reasonably foreseeable future projects are not considered cumulatively significant.

5.3.4.3 Project Contribution

There are no historically designated structures on the project site, nor are there any structures over 45 years of age, and the proposed project would not contribute to cumulatively significant impacts on historic structures. Moreover, as discussed in Section 4.4, *Cultural Resources*, the proposed project would mitigate (**MM-CUL-1** and **MM-CUL-2**) any potential project-level impacts on archaeological resources and paleontological resources (**Impact-CUL-1** and **Impact-CUL-2**) to a level less than significant. Therefore, because a cumulatively significant impact is not present and because the proposed project's impact on cultural resources would be less than significant after mitigation, the proposed project's contribution to cumulative impacts would not be cumulatively considerable.

5.3.4.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative cultural resources 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 resources impacts would not be cumulatively considerable and would be less than significant.

5.3.5 Geology and Soils

A significant cumulative impact on geology and soils would result if the proposed project would contribute to cumulative impacts related to exacerbating the potential of a fault rupture, strong seismic ground shaking, ground failure, landslides, erosion, unstable soils, lateral spreading, subsidence, liquefaction, collapse, expansive soils, or the use or installation of septic tanks or alternative wastewater disposal systems.

5.3.5.1 Geographic Scope

The geographic scope for cumulative impacts varies for geological resources and depends on the geologic issue. The geographic scope with respect to seismicity includes the San Diego Bayfront area and extends to adjacent areas, including downtown San Diego. An earthquake capable of creating substantial damage or injury at the project site could cause substantial damage or injury throughout this area of bay and Old Paralic deposits and undocumented fill, which are prone to liquefaction and seismically induced settlement. However, CEQA is concerned with a project's potential to exacerbate an existing condition and, with a few exceptions, does not consider the existing conditions' effects on the project to fall within its scope.

There is no potential for landslides, mudflows, and modification of topography or prominent geologic features because the project area is generally flat, not subject to slope instability, and contains no unique geologic features.

5.3.5.2 Cumulative Effects

Every past, present, and reasonably foreseeable future project identified in Table 5-2 has removed, and is expected to remove, onsite soils unsuitable for development and replace them with soils that are suitable consistent with engineering regulations (i.e., City grading requirements) and best practices (i.e., recommendations from geotechnical investigations).

Past and present development has increased, and will increase, the infrastructure, structural improvements, and number of people working and living in the bayfront area and downtown San Diego community, which has placed commercial, industrial, and residential structures, their occupants, and associated infrastructure in areas that are susceptible to seismic phenomena. All of the present and reasonably foreseeable future projects listed in Table 5-2 would also result in increased infrastructure, structures, and number of people working on site in the cumulative

geographic scope. However, none of these projects would be capable of exacerbating the potential for a geologic hazard given their limited impact on the area's geologic setting and the requirement to grade and compact soils in accordance with local and state standards designed to prevent soil hazards from occurring. Moreover, specific regulations that address worker safety would be in place if a seismic event were to occur, helping to avoid any harm to people or extensive damage to structures. Consequently, the impacts of past, present, and reasonably foreseeable future projects as they relate to exacerbating fault rupture, seismic ground shaking, and liquefaction would be less than cumulatively significant.

5.3.5.3 Project Contribution

The proposed project has the potential to exacerbate conditions that would result in liquefaction (**Impact-GEO-1**) and lateral spreading or soil collapse (**Impact-GEO-2**), during either construction or operation. However, mitigation required at the project level (**MM-GEO-1**) requires compliance with the California Building Code (CBC) and City of San Diego Municipal Code, which would ensure that the proposed project's potential to exacerbate geologic hazard conditions would be less than significant. When combined with the cumulative projects listed in Table 5-2, which would also be required to implement geology mitigation in areas of potential exacerbation of a geological hazard condition pursuant to the CBC and City of San Diego Municipal Code, cumulative impacts would be less than significant and the proposed project's contribution to a cumulative geologic impacts would not be cumulatively considerable.

5.3.5.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative geology and soils 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 geology and soils 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 greenhouse gas (GHG)-related impact if the project would be inconsistent with the District's Climate Action Plan (CAP) reduction targets; non-compliant with regulatory programs outlined in the Scoping Plan and adopted by the California Air Resources Board (ARB) or other California agencies to reduce GHG emissions in 2020; inconsistent with the post-2020 reduction targets set forth through California Executive Order (EO) S-03-05 and Senate Bill (SB) 32; or non-compliant with plans, policies, and regulations promulgated to reduce GHG emissions post-2020. 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. Finally, there would be the potential for a cumulatively

considerable energy use–related impact if the project would contribute to a cumulatively significant impact related to the wasteful, inefficient, and unnecessary usage of direct or indirect energy.

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. Energy use is a regional issue, and the geographic scope includes the service area of San Diego Gas and Electric (SDG&E).

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., Assembly Bill [AB] 32, Pavley 1, Advanced Clean Cars, Renewables Portfolio Standard, SB 350) 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, *Greenhouse Gas Emissions and Climate Change*, 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 Tables 4.6-9 and 4.6-10 in Section 4.6, landside elements associated with the proposed project would meet the CAP performance target for 2021, but the waterside elements would exceed the performance standard. Similarly, the proposed project would not be consistent with the CAP because it would not implement all of the applicable reduction measures (**Impact-C-GHG-1**). With implementation of **MM-GHG-1** through **MM-GHG-4**, the proposed project would meet the reduction targets required by the CAP, and would be consistent with the CAP, AB 32 Scoping Plan, and other near-term (2021) GHG reduction policies and plans (see Tables 4.6-11 through 4.6-14 in Section 4.6, *Greenhouse Gas Emissions and Climate Change*). Therefore, after mitigation, the proposed project would not result in cumulatively considerable impacts related to near-term (i.e., 2021) GHG emissions because it would not impede achievement of near-term state reduction targets.

As discussed under Threshold 2 of Section 4.6 and shown in Tables 4.6-9 and 4.6-10, neither the landside nor waterside elements would meet the 2030 or 2050 performance targets prior to mitigation. Similarly, the proposed project would not be entirely consistent with CAP strategies beyond 2020 (**Impact-C-GHG-2**). With **MM-GHG-1** through **MM-GHG-4**, the proposed project would achieve the necessary reductions needed to meet the 2030 or 2050 performance targets. **MM-GHG-5** would ensure the proposed project would be consistent with CAP measures in the post-2020 period. While **MM-GHG-1** through **MM-GHG-5** would support progress toward the 2030 and 2050 GHG reduction goals of SB 32 and EO S-03-05, project emissions would remain significant because specific targets that consider the unique geographic conditions and operational characteristics present at the District are not known at this time. Therefore, after mitigation, the proposed project would result in cumulatively considerable impacts related to long-term (i.e., 2030 and 2050) GHG emissions because it may still impede the achievement of long-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. Potential cumulatively considerable impact(s) include:

Impact-C-GHG-1: Inconsistency with District Climate Action Plan and Only Partial Consistency with Applicable GHG Reduction Plans, Policies, and Regulatory Programs through 2021. Project GHG emissions during combined project construction and operational activities would be inconsistent with the CAP because the project would not meet the performance benchmark for recreational boating (i.e., 42% reduction) and would only partially comply with plans, policies, and regulatory programs outlined in the District's CAP, the Scoping Plan, and other plans, policies, and regulatory programs adopted by ARB for the purpose of reducing the emissions of GHGs.

Impact-C-GHG-2: GHG Emissions in Excess of Post-2020 Targets for Landside Uses and Recreational Boating. Project GHG emissions during combined project construction and operational activities would not meet the landside efficiency target in 2030 and 2050, and would not meet the performance benchmark for recreational boating in both 2030 and 2050. Additionally, the proposed project would not comply with plans, policies, and regulatory programs outlined in the Draft 2017 Scoping Plan Update because emissions are not sufficiently reduced to meet statewide targets.

5.3.6.5 Mitigation Measures

For **Impact-C-GHG-1**:

Implement **MM-GHG-1: Implement Diesel Emission-Reduction Measures during Project Operations**, as described in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

Implement **MM-GHG-2: Comply with San Diego Unified Port District Climate Action Plan Measures**, as described in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

Implement **MM-GHG-3: Implement Sustainability Features during Project Operations**, as described in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

Implement **MM-GHG-4: Implement a Renewable Energy Project or Purchase the Equivalent Greenhouse Gas Offsets from a California Air Resources Board Approved Registry or a Locally Approved Equivalent Program**, as described in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

For **Impact-C-GHG-2:**

Implement **MM-GHG-1: Implement Diesel Emission-Reduction Measures during Project Operations**, as described in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

Implement **MM-GHG-2: Comply with San Diego Unified Port District Climate Action Plan Measures**, as described in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

Implement **MM-GHG-3: Implement Sustainability Features during Project Operations**, as described in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

Implement **MM-GHG-4: Implement a Renewable Energy Project or Purchase the Equivalent Greenhouse Gas Offsets from a California Air Resources Board Approved Registry or a Locally Approved Equivalent Program**, as described in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

Implement **MM-GHG-5: Implement a Renewable Energy Project or Purchase the Equivalent Greenhouse Gas Offsets from a California Air Resources Board Approved Registry or a Locally Approved Equivalent Program**, as described in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

5.3.6.6 Level of Significance after Mitigation

After mitigation, the proposed project's incremental contribution to cumulative impacts related to GHG emissions and reduction targets and plans through 2021 would be less than cumulatively considerable. However, the project's incremental contribution to cumulative impacts related to GHG emissions and reduction targets and plans for post-2021 would be cumulatively considerable after implementation of mitigation measures **MM-GHG-1** through **MM-GHG-5** due to the lack of a known reduction target that considers the location and type of project. Therefore, it cannot be stated with certainty that the proposed project would result in emissions that would represent a fair share of the requisite reductions to achieve post-2021 targets.

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: the creation of a significant hazardous materials impact on the public or environment; hazardous materials emissions; being located on a historic to current hazardous materials site; safety hazards related to airport operations; interference with an adopted emergency response plan; and exposure wildland fires when evaluated within the context of past, present, and reasonably foreseeable future projects. Because the proposed project would

have no impacts related to emergency response plans and wildland fires, the proposed project would also have no cumulative impacts related to these issue areas.

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. Additionally, the geographic scope for evaluating safety hazards related to airport operations includes the San Diego International Airport (SDIA) Airport Influence Area, Review Area 2.

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.

There were several sites in which releases were recorded within 0.12 mile of the project site and two active release 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 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 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.

Numerous structures are located within the SDIA Airport Influence Area, Review Area 2, and each would have received Federal Aviation Administration (FAA) and Airport Land Use Commission (ALUC) review and determination. Reasonably foreseeable future projects within this area would also be required to undergo FAA and ALUC review, and implement any requirements to reduce safety hazards related to airport operations. Therefore, cumulative effects related to airport safety would be less than cumulatively significant.

5.3.7.3 Project Contribution

Analysis of information contained in the Environmental Data Resources report, along with other environmental studies conducted in the area (i.e., for the Tenth Avenue Marine Terminal [cumulative project #17] and SDCC Phase III Expansion and Expansion Hotel [cumulative project #88]) identified the presence of waterside sediment contamination and landside soil contamination within the project site (**Impact-HAZ-1** and **Impact-HAZ-2**), as well as soil contamination within the areas proposed for offsite utility improvements (**Impact-HAZ-1**). Project-level mitigation measures (**MM-HAZ-1** through **MM-HAZ-4**) are required to reduce **Impact-HAZ-1** to less-than-significant levels by ensuring preparation and implementation of a soil and groundwater management plan, preparation and submittal of a monitoring and reporting program, preparation and submittal of a project closeout report, and implementation of a site-specific community health safety program. These measures would ensure that the proposed project would not accidentally expose existing landside contamination areas, and would minimize effects in the event an unanticipated upset condition does occur.

On the waterside, it is still possible that in-water construction activities for the marina expansion could be located within areas with contaminated sediment. Implementation of project-level mitigation measures **MM-HAZ-5** through **MM-HAZ-7** would minimize potential impacts associated with in-water sediment contamination (**Impact-HAZ-2**), but not necessarily to a level considered less than significant. However, these mitigation measures would effectively contain any contamination encountered to within the immediate area of any potential release (i.e., within 1–2 feet of the release) due to fine silt curtains and pile driving methods. Importantly, approval of the final methods for in-water construction are subject to approval by the Regional Water Quality Control Board (RWQCB) and/or other federal and state agencies, and not the District. As such, while the District has required measures to minimize impacts associated with contaminated sediment, the RWQCB and/or other federal and state agencies have final regulatory authority to approve specific methods for in-water construction. As such, while it is possible contaminated sediments would be encountered during construction, the extent of any release would be minimized to a small area through the required mitigation and, as such, the project's limited contribution to the less than cumulatively significant effects of past, present, and reasonably foreseeable future projects would not be cumulatively considerable.

In addition to the potential of encountering contaminated soils and sediments from past activities, construction of the project would require use of construction-related hazardous materials, including cleaners, fuel, solvents, paints, oils, and grease. It is possible that any of these substances could be released during construction and maintenance activities in small quantities. However, compliance with federal, state, and local regulations described in Section 4.7.3, *Applicable Laws and Regulations*, in combination with construction BMPs, would minimize any impacts as described in that section. Consequently, the proposed project is not expected to create a significant hazard to the public or the environment through upset and accident conditions because no new acutely hazardous materials would be introduced at the project site.

In addition, the proposed project has the potential to exacerbate an existing safety hazard for people residing or working within the vicinity of the project site due to the height of proposed construction and operational structures that would be located within Review Area 2 of the SDIA Airport Influence Area (**Impact-HAZ-3**). Project-level mitigation measure **MM-HAZ-8** is required to reduce impacts to less-than-significant levels by ensuring FAA approval and ALUC review and determination of construction and operational structures. The proposed project would implement any requirements

outlined in the ALUC and FAA determinations, such as adding flashing red lights to the structures, which would ensure that construction and operation of the proposed project would not affect the safe and efficient utilization of the navigable airspace by aircraft or the operation of air navigation facilities.

Therefore, the proposed project would not cumulatively contribute to the contamination of an existing hazardous site, result in new hazardous materials, or exacerbate an existing airport safety hazard. As such, when combined with past, present, and reasonably foreseeable future projects' hazardous material impacts, the proposed project's contribution would be less than 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, depletion of groundwater supplies or interference with recharge, alterations to drainage patterns leading to erosion or flooding, increased runoff in excess of available capacity, substantial additional sources of polluted runoff, the placement of structures within a 100-year flood hazard area that would impede or redirect flood flows, and/or exposure of people or structures to flooding risk from inundations by seiche or tsunami; 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, alterations to drainage patterns leading to erosion or flooding, or increased runoff in excess of available capacity; 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 Pueblo San Diego watershed, which includes all of the projects listed in Table 5-2.

5.3.8.2 Cumulative Effects

Past projects within the Pueblo San Diego watershed have contributed pollutants to the 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 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 requires 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 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) 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 the City, 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 the 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 may 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 the 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 Manual would be required, which would reduce impacts on water quality during construction.

Additionally, implementation of the expanded marina facilities and breakwater would result in short-term water quality impacts associated with the construction of the new piles, dock, and breakwater. As is typical for marina projects, 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 marina. 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 the Bay, 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 U.S. 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 in impervious surface areas and may increase the volume of runoff. Further, the project site would result in a change in land use that would result in an increase in pollutant-generating activities compared to existing conditions. Potential pollutants that may be generated at the project site include gross pollutants (trash, debris/litter, other organic matter, and floatables), metals, nutrients, oil and grease, organics, sediment, and trash. The District's Article 10 (Stormwater Management and Discharge Control Ordinance) and the JRMP include specific requirements for all development and redevelopment activities (for projects within the District's jurisdiction). Pursuant to the District's JRMP, post-construction BMPs are required for the proposed project. Article 10 also specifically requires structural treatment control BMPs for the proposed project. Additionally, a post-construction Storm Water Quality Management Plan must be included for the proposed project. The proposed project would implement BMPs consistent with the District's JRMP and BMP Design Manual to further ensure that water quality standards or wastewater discharge requirements are not violated and impacts on water quality would be less than significant during operation.

The proposed project activities would also result in the expansion of the existing marina, which would add up to 50 new boats to the San Diego Bay. Expanded marina operations and boater activities have the potential to significantly impair water quality in the long term if appropriate water quality protection measures are not implemented by boaters and marina employees. The San Diego Bay Shoreline, near the Marriott Marquis San Diego Marina, which is directly north of the

project site, is currently impaired for copper as a result of marina boats. While the Marriott Marquis San Diego Marina and proposed marina would be physically separated by a seawall barrier, the proposed project would effectively contribute additional pollutants and expand this existing impairment within the Bay (**Impact-HWQ-1**). Mitigation measure **MM-HWQ-1** is proposed to reduce impacts on water quality associated with the operation of the marina. Mitigation measure **MM-HWQ-1** requires development of a Marina Best Management Practice Plan and specific copper reduction measures, which would identify the specific use restrictions and provide copper education and outreach to the marina occupants. To evaluate the effectiveness of the Marina Best Management Practice Plan and copper reduction measures over the operation lifetime of the marina, mitigation measure **MM-HWQ-2** is proposed. Mitigation measure **MM-HWQ-2** requires the project proponent to monitor and, if necessary, reduce the impact of copper loading associated with the operation of each phase of the marina. Mitigation measure **MM-HWQ-2** further requires ongoing water quality monitoring for total and dissolved copper over the course of marina development and at various stages of occupancy for each phase of marina development. If at any time during water quality monitoring of the marina, the water quality equals or exceeds the Basin Plan water quality objectives, further development and/or marina occupancy must cease until additional BMPs are employed and reduce the copper levels in the marina to meet Basin Plan water quality objectives.

All of the project site drainages discharge into the San Diego Bay in the location of the proposed marina expansion, as do other storm drains from several areas outside the project site. As such, pollutants generated outside the project site would continue to discharge into the Bay via the shared discharge outlets at the project site. With the addition of the proposed marina expansion and breakwater, tidal flushing within the marina interior could be reduced compared to existing conditions (**Impact-HWQ-2**). Proper flushing is necessary to ensure that the water quality within the marina is maintained. The proposed marina should be designed so that the structures do not significantly restrict the natural circulation of water caused by tidal action. The degree of flushing necessary to maintain water quality in a marina should be balanced with safety, vessel protection, and sedimentation. Mitigation measure **MM-HWQ-3** requires the proposed project to be designed to maximize the flushing rate and promote circulation within the marina to maintain adequate tidal flushing within the expanded marina.

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 jurisdiction of the PMP, the downtown San Diego area, and the projects identified in Table 5-2.

5.3.9.2 Cumulative Effects

Past projects within the downtown area 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 downtown 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, and all past development projects within District boundaries have been approved pursuant to the adopted PMP, ensuring review and general conformity with the coastal zone management program. Since adoption and certification of the current PMP, there have been cases where PMP amendments were required to implement various development projects. However, these amendments have undergone District review and environmental review and District approval, and have been certified by the California Coastal Commission. Moreover, while there have been some projects that have disrupted downtown's connection with the waterfront (e.g., Phase I and II of the SDCC), others have improved the connection (e.g., Seaport Village and North Embarcadero). 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 San Diego Downtown Community Plan (which is the guiding land use policy document in the downtown area and is the document 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 downtown San Diego 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 downtown area would be required to demonstrate consistency with the San Diego Downtown Community Plan, 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 the San Diego Bay, such as a new public viewing platform (cumulative project #14), is intended to increase visual and physical access to the Bay. Other projects along the Bay, such as Marriott Marquis San Diego Hotel and Marina Facilities (cumulative project #1), Navy Broadway Complex Project (cumulative project #6), Lane Field North and South Hotel Project (cumulative project #13), North Embarcadero Visionary Plan Phase I (cumulative project #18), or the Portside Pier Restaurant Redevelopment Project (cumulative project #86), 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 land use changes would not result in uses that would be incompatible with existing PMP land uses on site and in the vicinity. While the project would be largely consistent with all applicable policies in the governing land use documents, the project would displace five existing vista areas that have been identified in the PMP (**Impact-LU-1**), and has a potential for insufficient wayfinding and accessibility signage to inform the public that public plaza and park areas are available for public use and enjoyment (**Impact-LU-2**). The proposed project also has the potential to be inconsistent with the California Coastal Act's requirements to minimize coastal hazards (**Impact-LU-3**). In addition, the proposed project has the potential to be inconsistent with the Airport Land Use Compatibility Plan for SDIA (**Impact-LU-4**). Implementation of mitigation measures, including replacement of the five vista areas (**MM-AES-4**), incorporation of operational requirements for public plaza and park areas and installation of wayfinding and public accessibility signage (**MM-PS-1** and **MM-AES-2**), use of smart design features and adaptation strategies (**MM-LU-1**), and obtainment of necessary determinations and approvals from ALUC and FAA (**MM-HAZ-8**) would reduce all of these potential impacts to less-than-significant levels, and the proposed project would not result in any significant and unavoidable land use impacts.

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. 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. Most 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 related SDCC Phase III Expansion project could not occur if the proposed project is constructed; therefore, there would be no possibility of these two projects overlapping.

The remaining two related projects within the geographical scope for analysis are Ballpark Village Parcel D (cumulative project #5) and the San Diego Symphony Bayside Performance Park Enhancement Project (cumulative project #87, Bayside Performance Park). Ballpark Village Parcel D is approximately 900 feet from Fifth Avenue Landing Park (which is located immediately southeast of the proposed project site); at this distance construction noise levels would be unlikely to exceed City standards, but could potentially cause minor increases relative to ambient noise levels. The Bayside Performance Park would be located within Embarcadero Marina Park South. The Draft EIR for the Bayside Performance Park indicates that heavy construction equipment (such as a bulldozer, scrapers, trucks, cranes, etc.) would be used, but that high-intensity construction methods such as pile driving or blasting would not be necessary (District 2017). As a result, construction of the Bayside Performance Park would not generate significant groundborne vibration levels but would have the potential to generate significant noise levels at the Embarcadero Marina Park South, as well as at the neighboring Embarcadero Marina Park North, both of which are predicted to experience direct noise impacts from the proposed project construction. These two related projects (Ballpark Village Parcel D and Bayside Performance Park) are separated from each other by a distance of over 2,500 feet and, as a result, would not be expected to generate a cumulative impact if construction were to occur simultaneously at both locations. However, if construction for either of the related projects were to occur simultaneously with proposed project construction, cumulative construction noise levels would likely be exacerbated relative to the effects of any individual project. Neither of the nearby related projects include in-water construction, so there would be no cumulative noise impacts on fish and marine mammals.

Operation

Traffic

The Transportation Impact Analysis for the proposed project (Chen Ryan 2017) provides traffic data for two cumulative scenarios. Near-term traffic volumes are provided for 2021, and future traffic volumes are provided for 2035. The traffic noise analysis for each scenario is provided in Appendix J, and the results are summarized in Tables 5-3 and 5-4. There would be a significant cumulative traffic noise impact under both scenarios (2021 and 2035) at the high-rise multifamily development adjacent to Harbor Drive between Pacific Highway and Kettner Boulevard. At this location the existing traffic noise level is below 65 decibels (dB) Community Noise Equivalent Level (CNEL) (approximately 63 dB CNEL), but would increase above 65 dB CNEL in 2021 and 2035. This impact would occur with or without the proposed project; the project's contribution to the overall impact is discussed below.

Onsite Operations

Related projects within the geographic scope of cumulative analysis are mostly low noise generators (residences) or improvements to existing developments such as hotels and marinas. 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 only exception would be the Bayside Performance Park, which proposes construction of a permanent outdoor forum to facilitate concerts and events, including San Diego Symphony performances and rehearsals, guest seating, restrooms, ancillary structures, and public park improvements and amenities. The Draft EIR for the Bayside Performance Park project indicates that the main noise sources would occur only periodically (up to approximately 100 admission-based events and 16 free public events per year, plus rehearsals) but would lead to significant and unavoidable noise impacts at Embarcadero Marina Park South and Fifth Avenue Landing Park/San Diego Bayfront Park. The nature of these noise sources would be quite distinctive compared to the surrounding ambient noise environment and there are no similar existing or proposed facilities whose noise would combine on a regular basis. Furthermore, due to the logarithmic nature of the dB scale used to measure noise levels, the overall levels generated by loud events such as concerts typically correspond closely to those levels generated by the single loudest event, and secondary sources typically add very little to the total noise level at any given receiver. Therefore, while the Bayside Performance Park project will generate some direct noise impacts at nearby noise-sensitive receptors on a periodic basis, there would be no significant cumulative impacts.

Table 5-3. Estimated Traffic Noise Levels, 2021

	Estimated Unmitigated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)					
	Existing	2021 Base	2021 + Project	2021 Cumulative Increase over Existing	Project Increase over 2021 Base	Significant?
Harbor Drive						
Laurel Street to Hawthorn Street	73.3	74.2	74.3	1.0	0.1	No
Pacific Highway to Kettner Boulevard	63.4	65.2	65.6	2.2	0.4	Yes
Kettner Boulevard to Market Street	68.7	70.6	71.0	2.3	0.4	No
Market Street to Front Street	68.5	69.6	70.1	1.6	0.5	No
Front Street to First Avenue	68.8	70.0	70.6	1.8	0.6	No
First Avenue to Convention Center Court	68.7	69.8	70.7	2.0	0.9	No
Convention Center Court to Fifth Avenue	68.7	69.8	70.7	2.0	0.9	No
Fifth Avenue to Park Boulevard	69.0	70.1	71.3	2.3	1.2	No
South of Park Boulevard	69.6	69.7	69.8	0.2	0.1	No
Pacific Highway						
Juniper Street to Hawthorn Street	63.8	64.5	64.8	1.0	0.3	No
Broadway to Harbor Drive	64.2	64.4	64.8	0.6	0.4	No
Park Boulevard						
Harbor Drive to Gull Street	59.5	60.6	63.5	4.0	2.9	No
Harbor Drive to Imperial Avenue ^a	N/A	N/A	N/A	N/A	N/A	N/A
Imperial Avenue						
Park Boulevard to 16 th Street ^a	N/A	N/A	N/A	N/A	N/A	N/A

Source: Appendix J.

^a The connection of Park Boulevard from Harbor Drive to Imperial Avenue would not be constructed until after 2021 so traffic along this roadway, and feeding to/from Imperial Avenue to the east, would not occur in this scenario.

Table 5-4. Estimated Traffic Noise Levels, 2035

	Estimated Unmitigated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)					
	Existing	2035 Base	2035 + Project	Increase over Existing	Increase over Base	Significant?
Harbor Drive						
Laurel Street to Hawthorn Street	73.3	74.0	74.1	0.8	0.1	No
Pacific Highway to Kettner Boulevard	63.4	65.2	65.6	2.2	0.4	Yes
Kettner Boulevard to Market Street	68.7	70.6	71.0	2.3	0.4	No
Market Street to Front Street	68.5	70.2	70.6	2.1	0.4	No
Front Street to First Avenue	68.8	70.5	70.9	2.1	0.4	No
First Avenue to Convention Center Court	68.7	70.4	70.8	2.1	0.4	No
Convention Center Court to Fifth Avenue	68.7	70.4	70.8	2.1	0.4	No
Fifth Avenue to Park Boulevard	69.0	70.7	71.1	2.1	0.4	No
South of Park Boulevard	69.6	70.4	70.4	0.8	0.0	No
Pacific Highway						
Juniper Street to Hawthorn Street	63.8	65.4	65.7	1.9	0.3	No
Broadway to Harbor Drive	64.2	64.4	64.8	0.6	0.4	No
Park Boulevard						
Harbor Drive to Gull Street	59.5	61.5	64.0	4.5	2.5	No
Harbor Drive to Imperial Avenue ^a	N/A	63.3	64.6	N/A	1.3	No
Imperial Avenue						
Park Boulevard to 16 th Street ^a	N/A	63.2	63.8	N/A	0.6	No

Source: Appendix J.

^a The connection of Park Boulevard from Harbor Drive to Imperial Avenue would not be constructed until after 2021 so traffic along this roadway, and feeding to/from Imperial Avenue to the east, does not occur under existing conditions.

Project Contribution

Construction

Construction of the proposed project would result in high noise levels at nearby noise-sensitive receivers, especially as a result of pile driving that will occur at the project site. If construction for nearby related projects were to occur simultaneously with proposed project construction, cumulative construction noise levels would likely be exacerbated and the proposed project's contribution would be cumulatively considerable (**Impact-C-NOI-1**).

Operation

Traffic

Referring to Tables 5-3 and 5-4, the only potentially significant cumulative traffic noise impact would occur adjacent to Harbor Drive between Pacific Highway and Kettner Boulevard, where the existing traffic noise level is below 65 dB CNEL (approximately 63 dB CNEL), but would increase above 65 dB CNEL in 2021 and 2035. The total cumulative noise increase would be approximately 2.2 dB, but the proposed project's contribution to this increase would be only 0.4 dB, which would be inaudible. As a result, the proposed project's contribution would be less than cumulatively considerable.

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 mitigation measure **MM-NOI-4** (which is provided in Section 4.10, *Noise and Vibration*) to control the proposed project's noise from mechanical equipment and other onsite sources would serve to further reduce noise levels from onsite operations.

The proposed project would not generate any periodic noise similar to that anticipated from the related Bayside Performance Park project. Therefore, while the Bayside Performance Park may cause periodic impacts at nearby noise-sensitive receptors, the proposed project's contribution to any such impacts would be less than cumulatively considerable.

5.3.10.3 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative impacts related to construction noise would be cumulatively considerable prior to mitigation. Potential cumulatively considerable impact(s) include:

Impact-C-NOI-1: Exacerbate Significant Construction Noise Levels if Cumulative Construction Activities Overlap. Project-related construction noise in excess of established City standards would be exacerbated by construction activity for related projects. It is noted that this impact would only occur if construction activities for related projects within 1,500 feet of the proposed project site (i.e., Ballpark Village Parcel D and the Bayside Performance Park), were to overlap with proposed project construction.

5.3.10.4 Mitigation Measures

For **Impact-C-NOI-1**:

Implement mitigation measures **MM-NOI-1**, **MM-NOI-2**, and **MM-NOI-3** (refer to Section 4.10, *Noise and Vibration*).

5.3.10.5 Level of Significance after Mitigation

Implementation of mitigation measures **MM-NOI-1**, **MM-NOI-2**, and **MM-NOI-3** would reduce the project's contribution to cumulative construction noise impacts, but not to a level less than significant if construction activities for related projects within 1,500 feet of the proposed project site were to overlap with proposed project construction.

5.3.11 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.

5.3.11.1 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 in the downtown area 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.

5.3.11.2 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 an additional approximately 5,020 hotel rooms, 11,221 residential units, 3,631,900 square feet of office space, 1,544,632 square feet of retail, and 6,812,605 square feet of other uses.

New fire stations are planned for the downtown area on the north side of Broadway between 13th and 14th Streets and on Cedar Street and Pacific Highway to meet the increased demand that has resulted from past and present projects within the cumulative study area and to provide adequate fire protection services for reasonably foreseeable future projects (City of San Diego 2016a); projects that would contribute to a cumulative fire protection services impact would be required to provide fair share mitigation in proportion to their impact contribution.

Police protection services would increase as present and future projects come online. However, unlike fire services where specific facilities are needed to house equipment and vehicles and

response personnel to adequately respond to fires and emergencies, police services use patrol cars that do not need to have facilities in the immediate vicinity of specific projects. 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.

As such, fire protection services would potentially require additional facilities, the construction of which could have significant environmental impacts that would be analyzed on a project by project basis and mitigated to the extent practicable. Police services would not. Therefore, cumulative fire protection impacts from cumulative projects throughout the downtown community would potentially be significant, whereas 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 within the District's jurisdiction include park and recreation facilities, such as Navy Broadway Complex Project (cumulative project #6), Lane Field North and South Hotel Project (cumulative project #13), Public Viewing Platform (cumulative project #14), and North Embarcadero Visionary Plan Phase 1 (cumulative project #18), which provide a cumulative benefit by increasing the amount of park and recreational area available to the public. Such additions will have occurred and will continue to occur in compliance with requirements of the California Coastal Act and the PMP. The PMP identifies construction of 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." Because of its heavily urbanized setting, the sufficient allocation of parkland within the downtown area has been a challenge for many years; however, reasonably foreseeable future projects within the City of 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 that are identified in the PMP and Downtown Community Plan would not be cumulatively significant.

5.3.11.3 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, with the exception of fire protection services. 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*, the San Diego 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 (Trame pers. comm.; Brick pers. comm.). Similarly, the San Diego Police Department states that police response times are currently and would continue to be acceptable under project operational conditions (Underwood 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 (Trame pers. comm.; Brick pers. comm.; Underwood 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 identify 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 4.11, the proposed project would increase the total area of public plaza and park areas from approximately 30,300 square feet (0.7 acre) to approximately 85,490 square feet (1.96 acres), which would result in a cumulative benefit on recreation. While construction and operational activities of the proposed new public access plazas would result in significant impacts on aesthetics, cultural resources, hazards and hazardous materials, noise, and transportation, circulation, and parking (**Impact-PS-1** and **Impact-PS-2**), these individual impacts are all analyzed in their respective sections within this chapter. Importantly, however, the project would create more public plaza and park 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.

In addition, prior to mitigation, operation of the proposed project was determined to result in insufficient wayfinding and accessibility signage and waterfront access and marina impacts (**Impact-PS-3** and **Impact-PS-4**). However, **MM-AES-2**, **MM-AES-3**, **MM-AES-4**, **MM-PS-1**, **MM-PS-2**, and **MM-PS-3** would reduce public access impacts to less-than-significant levels. Therefore, the proposed project's incremental contribution to cumulative park and recreational 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 public services and recreation 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 public services and recreation impacts would not be cumulatively considerable and would be less than significant.

5.3.12 Transportation, Circulation, and Parking

Cumulative impacts on transportation, circulation, and parking could result when past, present, and reasonably foreseeable future projects combine to result in unacceptable roadway, intersection, or freeway ramp operations; inadequate pedestrian or bicycle facilities; or inadequate mass transit capacity and lowered service. A project within the Centre City (Downtown San Diego) community is considered to have a significant impact on the traffic operations of an intersection when one of the following occurs.

- The addition of project traffic results in a level of service (LOS) dropping from LOS E or better to LOS F. Under this condition, the project is determined to have a direct impact, and mitigation measures would be necessary to restore the intersection LOS to LOS E conditions or better.
- If an intersection is operating at LOS under base conditions and the project adds more than an additional 2 seconds of average vehicle delay, the project is determined to have a cumulatively significant impact, and mitigation measures would be necessary to bring the intersection LOS to predevelopment conditions or better.

The impact standards listed above were established in the *Downtown San Diego Traffic Impact Assessment Methodology Evaluation of New Projects* (June 2007), and deviate from the traffic impact thresholds outlined in the City of San Diego Significance Determination Thresholds (July 2016). It should be noted that these impact standards are only applicable within the Centre City area.

5.3.12.1 Geographic Scope

The geographic scope for cumulative transportation, circulation, and parking impacts includes all intersections and roadway segments to which the project would contribute 50 or more peak hour trips (see Section 4.12, *Transportation, Circulation, and Parking*).

5.3.12.2 Cumulative Effects

During operations, the cumulative impact analysis for transportation, circulation, and parking includes a near-term (2021) scenario, which is the anticipated opening year for the proposed project, and long-term (2035) scenario. The near-term scenario is based on the list method for short-term cumulative impact analysis and includes all of the present and reasonably foreseeable future projects listed in Table 5-2. The long-term scenario considers estimated traffic conditions in the year 2035, and traffic volumes are based on the City's Downtown Community Plan traffic conditions for 2035.

Near-Term Year 2021 Base Conditions

It is assumed that under Near-Term Year 2021 Base Conditions the roadway and intersection geometrics would be identical to those under existing conditions. Near-Term Year 2021 Base intersection volumes were developed using the same modeling techniques employed for the *Downtown San Diego Near-Term Year 2021 Traffic Assessment Report* (Chen Ryan 2015). The model was updated to include the projects provided in Table 5-2 to replicate 2021 conditions. LOS analyses

for Near-Term Year 2021 Base Conditions were conducted using the methodologies described in Section 4.12.4.1 of Chapter 4.12, *Transportation, Circulation, and Parking*. Roadway segment analysis, intersection LOS analysis, and freeway mainline analysis results are discussed separately below.

Roadway Segments

Eleven roadway segments were analyzed for the Near-Term Year 2021 Base Conditions. Table 5-5 displays the LOS analysis results for key roadway segments under the Near-Term Year 2021 Base Conditions. As shown, all study roadway segments are projected to operate at LOS C or better under Near-Term Year 2021 Base Conditions, with the exception of Harbor Drive between Laurel Street and Hawthorn Street, which is projected to operate at LOS F under Near-Term Year 2021 Base Conditions.

Table 5-5. Roadway Segment LOS Results – Near-Term Year 2021 Base Conditions

Roadway Segment	Segment	Cross-Section	Threshold (LOS E)	ADT	V/C	LOS
Harbor Drive	Between Laurel Street and Hawthorn Street	6-Lane w/RM	<60,000	65,300	1.088	F
	Between Pacific Highway and Kettner Boulevard	6-Lane w/RM	<50,000	25,800	0.516	B
	Between Kettner Boulevard and Market Street	6-Lane w/RM	<50,000	28,700	0.574	C
	Between Market Street and Front Street	6-Lane w/RM	<50,000	23,000	0.460	B
	Between Front Street and First Avenue	4-Lane w/SM	<40,000	24,700	0.618	C
	Between First Avenue and Convention Center Court	4-Lane w/RM	<40,000	24,100	0.603	C
	Between Convention Center Court and Fifth Avenue	4-Lane w/SM	<40,000	24,100	0.603	C
	Between Fifth Avenue and Park Boulevard	4-Lane w/RM	<40,000	25,700	0.643	C
	South of Park Boulevard	4-Lane w/RM	<40,000	23,300	0.583	C
Pacific Highway	Between Juniper Street and Hawthorn Street	6-Lane w/RM	<50,000	10,100	0.202	A
	Between Broadway and Harbor Drive	4-Lane w/SM	<40,000	9,900	0.248	A

Source: Appendix K-1

ADT = average daily traffic

RM = raised median

SM = striped median

V/C = volume to capacity ratio

Intersections

Table 5-6 displays intersection LOS and average vehicle delay results under Near-Term Year 2021 Base Conditions. LOS calculation worksheets are provided in Appendix K-1, *Fifth Avenue Landing*

Transportation Impact Analysis (Chen Ryan 2017). As shown, all study area intersections are projected to operate at an acceptable LOS E or better under Near-Term Year 2021 Base Conditions, with the exception of the following.

AM Peak:

- 15th Street and F Street
- 16th Street and E Street
- 16th Street and F Street
- 17th Street and G Street
- Logan Avenue and Interstate (I-) 5 southbound on-ramp

PM Peak:

- Pacific Highway and Grape Street
- First Avenue and Beech Street
- 14th Street and G Street
- 15th Street and F Street
- 16th Street and Island Avenue
- 16th Street and G Street
- 16th Street and K Street
- 17th Street and G Street
- 19th Street and J Street
- Logan Avenue and I-5 southbound on-ramp

Table 5-6. Peak Hour Intersection LOS Results – Near-Term Year 2021 Base Conditions

#	Intersection	AM Peak Hour		PM Peak Hour	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS
1	Harbor Drive and Laurel Street	41.2	D	36.1	D
2	Harbor Drive and Hawthorn Street	54.6	D	14.9	B
3	Harbor Drive and Grape Street	15.7	B	15.9	B
4	Harbor Drive and Ash Street	13.8	B	15.4	B
5	Harbor Drive and Broadway	14.8	B	72.1	E
6	Harbor Drive and Kettner Boulevard	18.0	B	27.1	C
7	Harbor Drive and Market Street	27.1	C	21.5	C
8	Harbor Drive and Front Street	32.2	C	36.6	D
9	First Avenue and Harbor Drive	13.0	B	24.3	C
10	Harbor Drive and Fifth Avenue	13.5	B	26.8	C
11	Park Boulevard and Harbor Drive	52.0	D	14.5	B
12	Cesar Chavez Parkway and Harbor Drive	28.9	C	47.8	D
13	Pacific Highway and Laurel Street	49.8	D	53.5	D
14	Pacific Highway and Juniper Street	9.8	A	6.2	A
15	Pacific Highway and Hawthorn Street	21.4	C	37.9	D
16	Pacific Highway and Grape Street	41.6	D	93.8	F
17	Pacific Highway and Cedar Street	10.8	B	16.9	B
18	Pacific Highway and Ash Street	32.4	C	56.5	E
19	Pacific Highway and Grand Palm Court	15.5	B	19.6	B
20	Pacific Highway and Broadway	36.7	D	36.4	D

#	Intersection	AM Peak Hour		PM Peak Hour	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS
21	Pacific Highway and Harbor Drive	25.1	C	30.8	C
22	Front Street and Beech Street	32.8	C	16.0	B
23	Front Street and A Street	19.5	B	15.3	B
24	Front Street and Broadway	23.4	C	42.7	D
25	First Avenue and I-5 NB On-Ramp/Elm Street	7.4	A	17.5	B
26	First Avenue and Cedar Street	17.6	B	12.4	B
27	First Avenue and Beech Street	39.6	D	138.6	F
28	First Avenue and A Street	16.6	B	36.0	D
29	First Avenue and Broadway	56.5	E	26.2	C
30	Fifth Avenue and Cedar Street	14.6	B	18.7	B
31	Fifth Avenue and Beech Street	13.7	B	21.6	C
32	Fifth Avenue and Broadway	15.1	B	18.7	B
33	Sixth Avenue and Elm Street/ I-5 NB Off-Ramp	8.4	A	10.2	B
34	Sixth Avenue and Cedar Street	14.9	B	18.6	B
35	Ninth Street and Ash Street	12.0	B	11.1	B
36	Tenth Avenue and A Street	19.8	B	21.9	C
37	11 th Avenue and A Street	20.9	C	32.7	C
38	11 th Avenue and Broadway	12.5	B	70.0	E
39	11 th Avenue and F Street	40.9	D	62.0	E
40	11 th Avenue and G Street	15.7	B	74.2	E
41	11 th Avenue and Market Street	30.8	C	19.9	B
42	Park Boulevard and G Street	9.5	A	7.3	A
43	13 th Street and G Street	10.4	B	34.7	C
44	14 th Street and G Street	14.1	B	159.9	F
45	15 th Street and F Street	0.2	0.0	435.6	F
46	16 th Street and E Street	103.8	F	53.1	D
47	16 th Street and F Street	291.8	F	22.6	C
48	16 th Street and G Street	15.9	B	286.4	F
49	16 th Street and Market Street	15.4	B	25.2	C
50	16 th Street and Island Avenue	13.5	B	67.2	F
51	16 th Street and K Street	27.5	D	78.5	F
52	Imperial Avenue and 16 th Street	15.5	B	32.2	C
53	17 th Street and G Street	94.8	F	>500	F
54	17 th Street and J Street	12.9	B	12.0	B
55	Imperial Avenue and 17 th Street	12.6	B	12.9	B
56	19 th Street and J Street	15.0	B	76.4	F

#	Intersection	AM Peak Hour		PM Peak Hour	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS
57	Imperial Avenue and 19 th Street	21.4	C	17.0	B
58	Logan Avenue and I-5 SB Off-Ramp	45.5	E	21.6	C
59	Logan Avenue and I-5 SB On-Ramp	65.2	F	>500	F

Source: Appendix K-1

Note: Failing LOS of F is denoted in **bold** text.

NB = northbound

SB = southbound

sec = seconds

Freeway Mainline Segments

Table 5-7 displays the LOS results from the freeway mainline segment analysis under Near-Term Year 2021 Base Conditions. As shown, all study area freeway mainline segments operate at LOS D or better, with the exception of the following.

- I-5 northbound, between Grape Street and First Avenue (LOS E, AM Peak)
- I-5 northbound, between First Avenue and State Route (SR-) 163 (LOS F, AM Peak)
- I-5 northbound, between First Avenue and SR-163 (LOS E, PM Peak)
- I-5 northbound, between B Street and SR-94 (LOS F, AM Peak)
- I-5 southbound, between B Street and SR-94 (LOS F, PM Peak)

Table 5-7. Freeway Mainline Analysis – Near-Term Year 2021 Base Conditions

Freeway/ State Highway	Segment	ADT	Direction	# of Lanes	Capacity	HV %	AM Peak Hour			PM Peak Hour		
							Peak Hour Volume	V/C Ratio	LOS	Peak Hour Volume	V/C Ratio	LOS
I-5	Grape Street to First Avenue	173,100	NB	4M	9,400	4.1%	9,290	0.988	E	5,430	0.578	C
			SB	4M	9,400	4.1%	5,500	0.585	C	8,100	0.862	D
	First Avenue to SR-163	224,900	NB	4M	9,400	4.1%	12,060	1.283	F	7,050	0.750	D
			SB	5M	11,750	4.1%	7,140	0.608	C	10,530	0.896	E
	SR-163 and B Street	231,900	NB	6M	14,100	3.7%	12,390	0.879	D	7,240	0.513	C
			SB	6M	14,100	3.7%	7,330	0.520	C	10,810	0.767	D
	B Street to SR-94	231,900	NB	4M	9,400	4.0%	12,430	1.322	F	7,260	0.772	D
			SB	4M	9,400	4.0%	7,360	0.783	D	10,840	1.153	F
	SR-94 to Imperial Avenue	189,100	NB	5M	11,750	3.8%	10,110	0.860	D	5,910	0.503	C
			SB	5M	11,750	3.8%	5,990	0.510	C	8,820	0.751	D
	Imperial Avenue to SR-75	185,200	NB	5M	11,750	4.0%	9,920	0.844	D	5,800	0.494	B
			SB	5M	11,750	4.0%	5,870	0.500	C	8,660	0.737	D

Source:: Appendix K-1

Notes:

Bold letter indicates LOS E or F.

The capacity, directional split, peak hour %, and heavy vehicle % are assumed to be the same as existing conditions.

ADT = average daily traffic

HV = heavy vehicle

M = mainline lane

NB = northbound

SB = southbound

V/C = volume to capacity

Future Year 2035 Base Conditions

Future Year 2035 roadway and intersection geometrics are assumed to be identical to those under existing conditions, with the exception of the following modifications identified in the *Downtown San Diego Mobility Plan Technical Report* (Chen Ryan 2016).

- Connect the two segments of Park Boulevard that currently terminate at Harbor Drive and Tony Gwynn Drive, enabling northbound-southbound movements through the Park Boulevard/Harbor Drive intersection.
- Reduce Pacific Highway from a 6-lane roadway with raised median to a 4-lane roadway with a raised median.
- Close Park Boulevard to vehicular traffic between E Street and Market Street.

Future Year 2035 Base intersection volumes were obtained from the Downtown San Diego Mobility Plan (Chen Ryan 2016), while roadway segment volumes were derived from the increase in intersection volumes when compared to the corresponding existing roadway segment volumes. Relevant pages from the Downtown San Diego Mobility Plan are provided in Appendix K-1.

Roadway Segments

Table 5-8 displays the LOS analysis results for key roadway segments under the Future Year 2035 Base Conditions. As shown, all key study roadway segments are projected to operate at LOS C or better under Future Year 2035 Base Conditions, with the exception of Harbor Drive, between Laurel Street and Hawthorn Street, which is projected to operate at LOS F.

Table 5-8. Roadway Segment LOS Results - Future Year 2035 Base Conditions

Roadway Segment	Segment	Cross-Section	Threshold (LOS E)	ADT	V/C	LOS
Harbor Drive	Between Laurel Street and Hawthorn Street	6-Lane w/RM	60,000	62,700	1.045	F
	Between Pacific Highway and Kettner Boulevard	6-Lane w/RM	<50,000	25,800	0.516	B
	Between Kettner Boulevard and Market Street	6-Lane w/RM	<50,000	28,700	0.574	B
	Between Market Street and Front Street	6-Lane w/RM	<50,000	26,000	0.520	B
	Between Front Street and First Avenue	4-Lane w/SM	<40,000	28,000	0.700	C
	Between First Avenue and Convention Center Court	4-Lane w/RM	<40,000	27,300	0.683	C
	Between Convention Center Court and Fifth Avenue	4-Lane w/SM	<40,000	27,300	0.683	C
	Between Fifth Avenue and Park Boulevard	4-Lane w/RM	<40,000	29,100	0.728	C
	South of Park Boulevard	4-Lane w/RM	<40,000	27,400	0.685	C

Roadway Segment	Segment	Cross-Section	Threshold (LOS E)	ADT	V/C	LOS
Pacific Highway	Between Juniper Street and Hawthorn Street	4-Lane w/RM	<40,000	12,400	0.310	A
	Between Broadway and Harbor Drive	4-Lane w/SM	<40,000	10,000	0.250	A

Source: Appendix K-1

ADT = average daily traffic; RM = raised median; SM = striped median; V/C = volume to capacity ratio

Intersections

Table 5-9 displays intersection LOS and average vehicle delay results under Future Year 2035 Base Conditions (LOS calculation worksheets are provided in Appendix K-1).

Table 5-9. Peak Hour Intersection LOS Results – Future Year 2035 Base Conditions

#	Intersection	AM Peak Hour		PM Peak Hour	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS
1	Harbor Drive and Laurel Street	132.2	F	109.0	F
2	Harbor Drive and Hawthorn Street	52.1	D	31.5	C
3	Harbor Drive and Grape Street	20.0	B	62.5	E
4	Harbor Drive and Ash Street	19.1	B	50.5	D
5	Harbor Drive and Broadway	31.3	C	87.6	F
6	Harbor Drive and Kettner Boulevard	20.5	C	40.4	D
7	Harbor Drive and Market Street	34.3	C	22.4	C
8	Harbor Drive and Front Street	30.6	C	15.7	B
9	First Avenue and Harbor Drive	18.7	B	37.9	D
10	Harbor Drive and Fifth Avenue	21.3	C	24.6	C
11	Park Boulevard and Harbor Drive	49.4	D	42.7	D
12	Cesar Chavez Parkway and Harbor Drive	32.3	C	134.0	F
13	Pacific Highway and Laurel Street	101.9	F	143.5	F
14	Pacific Highway and Juniper Street	8.3	A	8.6	A
15	Pacific Highway and Hawthorn Street	44.6	D	31.4	C
16	Pacific Highway and Grape Street	51.2	D	79.7	E
17	Pacific Highway and Cedar Street	13.9	B	40.6	D
18	Pacific Highway and Ash Street	66.7	E	50.1	D
19	Pacific Highway and Grand Palm Court	17.9	B	24.9	C
20	Pacific Highway and Broadway	32.9	C	38.8	D
21	Pacific Highway and Harbor Drive	22.8	C	25.9	C
22	Front Street and Beech Street	162.1	F	25.4	C
23	Front Street and A Street	21.5	C	62.7	E
24	Front Street and Broadway	52.5	D	140.2	F
25	First Avenue and I-5 NB On-Ramp/Elm Street	7.0	A	6.4	A

#	Intersection	AM Peak Hour		PM Peak Hour	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS
26	First Avenue and Cedar Street	7.3	A	8.1	A
27	First Avenue and Beech Street	32.3	C	125.4	F
28	First Avenue and A Street	10.1	B	92.3	F
29	First Avenue and Broadway	147.3	F	84.5	F
30	Fifth Avenue and Cedar Street	23.1	C	19.9	B
31	Fifth Avenue and Beech Street	17.5	B	39.4	D
32	Fifth Avenue and Broadway	19.8	B	47.2	D
33	Sixth Avenue and Elm Street/I-5 NB Off-Ramp	15.6	B	8.5	A
34	Sixth Avenue and Cedar Street	57.4	E	19.5	B
35	Ninth Street and Ash Street	12.8	B	10.3	B
36	Tenth Avenue and A Street	24.2	C	42.8	D
37	11 th Avenue and A Street	26.7	C	34.3	C
38	11 th Avenue and Broadway	29.9	C	95.9	F
39	11 th Avenue and F Street	70.7	E	38.7	D
40	11 th Avenue and G Street	13.2	B	152.6	F
41	11 th Avenue and Market Street	48.8	D	88.6	F
42	Park Boulevard and G Street	9.2	A	130.8	F
43	13 th Street and G Street	59.5	E	369.3	F
44	14 th Street and G Street	10.8	B	297.6	F
45	15 th Street and F Street	>500	F	>500	F
46	16 th Street and E Street	188.5	F	60.8	E
47	16 th Street and F Street	153.5	F	52.6	D
48	16 th Street and G Street	13.1	B	286.7	F
49	16 th Street and Market Street	17.1	B	35.6	D
50	16 th Street and Island Avenue	15.2	C	89.5	F
51	16 th Street and K Street	21.5	C	47.7	E
52	Imperial Avenue and 16 th Street	21.9	C	80.5	F
53	17 th Street and G Street	263.2	F	>500	F
54	17 th Street and J Street	13.5	B	17.1	B
55	Imperial Avenue and 17 th Street	14.0	B	10.6	B
56	19 th Street and J Street	16.3	C	140.7	F
57	Imperial Avenue and 19 th Street	23.3	C	22.0	C
58	Logan Avenue and I-5 SB Off-Ramp	13.0	B	79.5	F
59	Logan Avenue and I-5 SB On-Ramp	169.8	F	>500	F

Source: Appendix K-1

NB = northbound; SB = southbound; sec = seconds

As shown in Table 5-9, the following intersections are projected to operate at LOS F under Future Year 2035 Base Conditions:

AM Peak

- Harbor Drive and Laurel Street
- Pacific Highway and Laurel Street
- Front Street and Beech Street
- First Avenue and Broadway
- 15th Street and F Street
- 16th Street and E Street
- 16th Street and F Street
- 17th Street and G Street
- Logan Avenue and I-5 southbound on-ramp

PM Peak

- Harbor Drive and Laurel Street
- Harbor Drive and Broadway
- Caesar Chavez Parkway and Harbor Drive
- Pacific Highway and Laurel Street
- Front Street and Broadway
- First Avenue and Beech Street
- First Avenue and A Street
- First Avenue and Broadway
- 11th Avenue and Broadway
- 11th Avenue and G Street
- 11th Avenue and Market Street
- Park Boulevard and G Street
- 13th Street and G Street
- 14th Street and G Street
- 15th Street and F Street
- 16th Street and G Street
- 16th Street and Island Avenue
- Imperial Avenue and 16th Street
- 17th Street and G Street
- 19th Street and J Street
- Logan Avenue and I-5 southbound off-ramp
- Logan Avenue and I-5 southbound on-ramp

Freeway Segments

Table 5-10 displays the LOS results from the freeway mainline segment analysis under Future Year 2035 Base Conditions. As shown, all study area freeway mainline segments operate at LOS D or better, with the exception of the following.

- I-5 northbound, between Grape Street and First Avenue (LOS F, AM Peak)
- I-5 southbound, between Grape Street and First Avenue (LOS E, PM Peak)
- I-5 northbound, between First Avenue and SR-163 (LOS F, AM Peak)
- I-5 southbound, between First Avenue and SR-163 (LOS E, PM Peak)
- I-5 northbound, between SR-163 and B Street (LOS E, AM Peak)
- I-5 northbound, between B Street and SR-94 (LOS F, AM Peak)
- I-5 southbound, between B Street and SR-94 (LOS F, PM Peak)
- I-5 northbound, between SR-94 and Imperial Avenue (LOS F, AM Peak)
- I-5 southbound, between SR-94 and Imperial Avenue (LOS E, PM Peak)
- I-5 northbound, between Imperial Avenue and SR-75 (LOS F, AM Peak)

Table 5-10. Freeway Mainline Analysis – Future Year 2035 Base Conditions

Freeway/ State Highway	Segment	ADT	Direction	# of Lanes	Capacity	HV %	AM Peak Hour			PM Peak Hour		
							Peak Hour Volume	V/C Ratio	LOS	Peak Hour Volume	V/C Ratio	LOS
I-5	Grape Street to First Avenue	182,800	NB	4M	9,400	4.1%	9,810	1.044	F	5,730	0.610	C
			SB	4M	9,400	4.1%	5,800	0.617	C	8,560	0.911	E
	First Avenue to SR-163	252,500	NB	4M	9,400	4.1%	13,550	1.441	F	7,920	0.843	D
			SB	5M	11,750	4.1%	8,020	0.683	C	11,820	1.006	E
	SR-163 and B Street	252,700	NB	6M	14,100	3.7%	13,500	0.957	E	7,890	0.560	C
			SB	6M	14,100	3.7%	7,990	0.567	C	11,780	0.835	D
	B Street to SR-94	252,700	NB	4M	9,400	4.0%	13,540	1.440	F	7,910	0.841	D
			SB	4M	9,400	4.0%	8,010	0.852	D	11,820	1.257	F
	SR-94 to Imperial Avenue	226,600	NB	5M	11,750	3.8%	12,120	1.031	F	7,080	0.603	C
			SB	5M	11,750	3.8%	7,170	0.610	C	10,570	0.900	E
	Imperial Avenue to SR-75	222,900	NB	5M	11,750	4.0%	11,950	1.017	F	6,980	0.594	C
			SB	5M	11,750	4.0%	7,070	0.602	C	10,420	0.887	D

Source: Appendix K-1

Notes:

Bold letter indicates LOS E or F.

The capacity, directional split, peak hour %, and heavy vehicle % are assumed to be the same as existing conditions.

ADT = average daily traffic; HV = heavy vehicle; M = mainline lane; V/C = volume to capacity

Parking

Of the 100 projects listed in Table 5-2, over 70 have involved, or will involve, construction of residential and commercial developments that will add new residential units, hotel rooms, retail and office space, museums, and other tourist destinations to the downtown area. All of these projects will bring new residents, workers, and visitors to the downtown area, which will increase the demand for parking. While most of these projects will provide parking within their respective project sites, it can be assumed that not all of them will be able to accommodate the entire parking demand generated by the project within their site. As discussed in the Transportation Impact Analysis (Appendix K-1), the Comprehensive Parking Plan for Downtown San Diego estimated that, based on buildout assumptions of the Downtown Community Plan, downtown overall would experience an average mid-day parking deficit by the year 2015 under low, mid, and high buildout assumptions, and would experience midday and evening parking deficits by the year 2030 under low, mid, and high buildout assumptions. While the SDCC neighborhood would continue to provide a surplus of parking under low, mid and high buildout projections through 2030, previous studies conducted for expansion of the SDCC have indicated that parking supply in the project area is inadequate during large events, i.e., events in excess of 14,900 attendees (District 2012). The SDCC and nearby Petco Park have maximum attendance capacities of 125,000 and 42,445, respectively, and large events are routinely hosted at these facilities, and will continue to be in the reasonably foreseeable future (San Diego Convention Center Corporation 2017; San Diego Padres 2017). Therefore, parking supply deficits are anticipated to increase with reasonably foreseeable future projects, and cumulative parking impacts from past, present, and reasonably foreseeable projects are significant.

5.3.12.3 Project Contribution

Near-Term Year 2021 Base Plus Project Conditions

Construction

Construction of the proposed project is anticipated to begin at the end of 2018 and would occur over a 24- to 30-month period, ending in 2021 when the project is fully operational. Peak construction is anticipated to occur between May and June of 2020. It was assumed that all workers would drive individual vehicles to the construction staging area on Belt Street, with access at the intersection of Harbor Drive and Sampson Street, and that all workers would arrive and depart during the AM and PM peak hours, respectively. It was also assumed that the 28 delivery trucks/vans would drive to the staging area to unload, with the trips evenly distributed throughout the 8-hour work day. As shown in Table 5-11, construction of the proposed project is anticipated to generate approximately 1,158 daily trips, including 507 trips during the AM and PM peak hours.

Table 5-11. Overall Project Construction Trip Generation

Use	Units	Vehicle Conversion Rate	Rate	Daily Vehicle Trips	AM Peak Hour		PM Peak Hour	
					In	Out	In	Out
Construction Worker Traffic	495	1	2/Worker	990	495	0	0	495
Delivery Truck/ Van Traffic	28	3	2/Truck	168	12	12	12	12
Total				1,158	507	12	12	507
Source: Appendix K-1								

Additionally, it was assumed that shuttles would transport all workers to the project site via Harbor Drive once they arrived at the staging area. The same number of delivery trucks/vans that would transport construction material to the staging area were also assumed to transport it to the project site. Table 5-12 displays the vehicle trip generation for the staging area during the peak of project construction. As shown in Table 5-12, project construction is anticipated to generate approximately 366 daily trips, including 124 trips during the AM and PM peak hours. These trips would be added to the roadway segment of Harbor Drive between Park Boulevard and Sampson Street.

Table 5-12. Staging Area Trip Generation

Use	Units	Vehicle Conversion Rate	Rate	Daily Vehicle Trips	AM Peak Hour		PM Peak Hour	
					In	Out	In	Out
Shuttles	33 ^a	1.5	4/Worker	198	50	50	50	50
Delivery Truck/ Van Traffic	28	3	2/Truck	168	12	12	12	12
Total				366	62	62	62	62
Source: Appendix K-1								
^a It is assumed that 1 shuttle can accommodate 15 workers.								

Roadways

Table 5-13 displays the daily roadway segment LOS results for the Near-Term Base and Near-Term Plus Project Construction scenarios. As shown, all roadway segments are projected to operate at LOS C or better under the Near-Term 2021 Plus Project Construction scenario with the exception of the roadway segment of 28th Street between National Avenue and Boston Avenue.

Table 5-13. Roadway Segment Analysis: Near-Term 2021 Base Plus Project Construction

Roadway	Segment	Cross-Section	Threshold (LOS E)	Near-Term 2021 Base Condition	Near-Term 2021 + Project Construction			Δ	Sig?
				ADT/ V/C /LOS	ADT	V/C	LOS		
Harbor Drive	Between Park Boulevard and Beardsley Street	4-Lane w/RM	<40,000	23,300/0.583/C	23,666	0.592	C	0.010	N
	Between Beardsley Street and Cesar Chavez Parkway	4-Lane w/RM	<40,000	24,541/0.614/C	25,144	0.629	C	0.009	N
	Between Cesar Chavez Parkway and Sampson Street	4-Lane w/RM	<40,000	15,923/0.398/B	16,289	0.407	B	0.009	N
	Between Sampson Street and Schley Street	4-Lane w/RM	<40,000	17,471/0.437/B	18,629	0.466	B	0.029	N
	Between Schley Street and 28 th Street	4-Lane w/RM	<40,000	17,047/0.426/B	18,205	0.455	B	0.029	N
28 th Street	Between National Avenue and Boston Avenue	3-Lane	<22,500	23,104/1.027/E	24,054	1.069	F	0.042	Y
	Between Boston Avenue and Main Street	4-Lane	<30,000	20,650/0.688/D	21,808	0.727	D	0.039	N
	Between Main Street and Harbor Drive	4-Ln w/RM	<40,000	17,264/0.432/B	18,422	0.461	B	0.029	N

Source: Appendix K-1

ADT = average daily traffic; RM = raised median; S? = indicates if change in V/C ratio is significant; SM = striped median; V/C = volume to capacity ratio; Δ = change in V/C ratio

Based upon the significance criteria presented above, significant impacts are associated with the proposed project under Near-Term Year 2021 Base Plus Project Construction conditions at the following roadway segment (roadway segment operating at LOS E or F to which the proposed project will increase its volume to capacity [V/C] ratio by more than 0.02 or 0.01, respectively) **(Impact-C-TRA-1)**.

- 28th Street between National Avenue and Boston Avenue

Intersections

Table 5-14 displays intersection LOS and average vehicle delay results for both Near-Term Base and Near-Term Base Plus Project Construction conditions.

Table 5-14. Peak Hour Intersection Level of Service Results: Near-Term 2021 Base Plus Project Construction

#	Intersection	Near-Term Base Delay (sec) AM/PM	Near-Term Base LOS AM/PM	Near-Term + Project Construction				Change in Delay (sec) AM/PM	Sig?
				AM Peak Hour		PM Peak Hour			
				Average Delay (sec)	LOS	Average Delay (sec)	LOS		
1	28th Street and National Avenue	25.5/22.6	C/C	28.5	C	22.7	C	3.0/0.1	N/N
2	I-5 NB Off-Ramp and National Avenue	33.3/37.5	C/D	49.5	D	37.9	D	16.2/0.4	N/N
3	28th Street and Boston Avenue	8.3/12.2	A/B	8.9	A	13.9	B	0.6/1.7	N/N
4	I-5 SB On-Ramp and Boston Avenue	46.8/165.9	E/F	48.6	E	814.0	F	1.8/648.1	N/Y
5	28th Street and Main Street	13.6/41.0	B/D	15.6	B	41.9	D	2.0/0.9	N/N
6	Park Boulevard and Harbor Drive	16.3/14.3	B/B	17.4	B	16.2	B	1.1/1.9	N/N
7	Cesar Chavez Pkwy and Harbor Drive	23.4/32.4	C/C	23.9	C	35.4	D	0.5/3.0	N/N
8	Sampson Street and Harbor Drive	18.5/19.2	B/B	130.5	F	101.8	F	112.0/82.6	Y/Y
9	Schley Street and Harbor Drive	7.9/6.8	A/A	9.8	A	7.1	A	1.9/0.3	N/N
10	28 th Street and Harbor Drive	21.3/19.2	C/B	30.1	C	54.6	D	8.8/35.4	N/N

Source: Appendix K-1

NB = northbound; SB = southbound; sec = seconds

As shown, all key study intersections are projected to operate at acceptable LOS E or better under the Near-Term 2021 Base Plus Project Construction scenario, with the exception of the following.

AM Peak:

- I-5 southbound on-ramp and Boston Avenue
- Sampson Street and Harbor Drive

PM Peak:

- I-5 southbound on-ramp and Boston Avenue
- Sampson Street and Harbor Drive

Based upon the significance criteria presented above, significant impacts are associated with the proposed project under Near-Term Year 2021 Base Plus Project Conditions at the following intersections (intersections operating at LOS F to which the proposed project will add more than 2.0 seconds of delay) (**Impact-C-TRA-2**).

AM Peak:

- Sampson Street and Harbor Drive

PM Peak:

- I-5 southbound on-ramp and Boston Avenue
- Sampson Street and Harbor Drive

Mitigation in the form of a transportation demand management (TDM) plan during construction is required to reduce the significant impact by limiting the number of construction worker trips through the affected roadway segments and intersections during peak periods (**MM-TRA-1**).

Freeway Mainline Segments

Table 5-15 displays the LOS results from the freeway mainline segment analysis under the Near-Term Year 2021 Base Plus Project Construction scenario.

Table 5-15. Freeway Mainline Analysis: Near-Term 2021 Base Plus Project Construction

Freeway/ State Highway	Segment	ADT	Direction	# of Lanes	Capacity	HV %	AM Peak Hour			PM Peak Hour		
							Peak Hour Volume	V/C Ratio	LOS	Peak Hour Volume	V/C Ratio	LOS
I-5	Grape Street to First Avenue	173,100	NB	4M	9,400	4.1%	9,290	0.988	E	5,430	0.578	C
			SB	4M	9,400	4.1%	5,500	0.585	C	8,100	0.862	D
	First Avenue to SR-163	224,900	NB	4M	9,400	4.1%	12,060	1.283	F	7,050	0.750	D
			SB	5M	11,750	4.1%	7,140	0.608	C	10,530	0.896	E
	SR-163 and B Street	231,900	NB	6M	14,100	3.7%	12,390	0.879	D	7,240	0.513	C
			SB	6M	14,100	3.7%	7,330	0.520	C	10,810	0.767	D
	B Street to SR-94	231,900	NB	4M	9,400	4.0%	12,430	1.322	F	7,260	0.772	D
			SB	4M	9,400	4.0%	7,360	0.783	D	10,840	1.153	F
	SR-94 to Imperial Avenue	189,100	NB	5M	11,750	3.8%	10,110	0.860	D	5,910	0.503	C
			SB	5M	11,750	3.8%	5,990	0.510	C	8,820	0.751	D
	Imperial Avenue to SR-75	185,200	NB	5M	11,750	4.0%	9,920	0.844	D	5,800	0.494	B
			SB	5M	11,750	4.0%	5,870	0.500	C	8,660	0.737	D

Source: Appendix K-1

Notes:

The capacity, directional split, peak hour %, and heavy vehicle % are assumed to be the same as existing conditions.

Bold letter indicates substandard LOS E or F.

ADT = average daily traffic; HV = heavy vehicle; M = mainline lane; NB = northbound; SB = southbound

As shown in Table 5-15, all study area freeway mainline segments would operate at LOS D or better with the exception of the following:

- I-5 northbound, between Grape Street and First Avenue (LOS E, AM Peak)
- I-5 northbound, between First Avenue and SR-163 (LOS F, AM Peak)
- I-5 northbound, between B Street and SR-94 (LOS F, AM Peak)
- I-5 southbound, between B Street and SR-94 (LOS F, PM Peak)
- I-5 northbound, between 28th Street and I-15 (LOS E, PM Peak)
- SR-163 northbound, south of Robinson Avenue (LOS E, AM Peak)
- SR-163 northbound, south of Robinson Avenue (LOS F, PM Peak)
- SR-163 southbound, south of Robinson Avenue (LOS F, AM Peak)

Based on the City of San Diego's Significance Criteria, the traffic associated with the proposed project would not cause a significant change in the V/C ratio (add more than 0.010 for LOS E or 0.005 for LOS F) to any of the analyzed freeway segments. Therefore, impacts on freeway segments under Near-Term Year 2021 Base Plus Project Construction conditions would be less than significant.

Operation

Roadway and intersection geometrics under Near-Term Year 2021 Base Plus Project Conditions were assumed to be identical to existing conditions geometrics. Near-Term Year 2021 Base Plus Project traffic volumes were derived by combining the Near-Term Year 2021 Base traffic volumes and the project trip assignment volumes (see Section 4.12.4.1 of Chapter 4.12, *Transportation, Circulation, and Parking*).

Roadway Segments

Table 5-16 displays the LOS analysis results for key roadway segments under Near-Term Year 2021 Base Plus Project Conditions. As shown in Table 5-16, all study roadway segments are projected to operate at LOS C or better under Near-Term Year 2021 Base Plus Project Conditions, with the exception of Harbor Drive, between Laurel Street and Hawthorn Street, which is projected to operate at LOS F under Near-Term Year 2021 Base Plus Project Conditions.

Table 5-16. Roadway Segment LOS Results – Near-Term Year 2021 Base Plus Project Conditions

Roadway	Segment	Cross-Section	Threshold (LOS E)	Near-Term Year 2021 Base + Project			Near-Term Year 2021 Base	Δ	Sig?
				ADT	V/C	LOS	ADT/V/C/LOS		
Harbor Drive	Between Laurel Street and Hawthorn Street	6-Lane w/RM	60,000	66,994	1.117	F	65,300/1.088/F	0.028	Y
	Between Pacific Highway and Kettner Boulevard	6-Lane w/RM	<50,000	28,341	0.567	B	25,800/0.516/B	0.051	N
	Between Kettner Boulevard and Market Street	6-Lane w/RM	<50,000	31,241	0.625	C	28,700/0.574/C	0.051	N
	Between Market Street and Front Street	6-Lane w/RM	<50,000	25,541	0.511	B	23,000/0.460/B	0.051	N
	Between Front Street and First Avenue	4-Lane w/SM	<40,000	28,512	0.713	C	24,700/0.618/C	0.095	N
	Between First Avenue and Convention Center Court	4-Lane w/RM	<40,000	29,606	0.740	C	24,100/0.603/C	0.138	N
	Between Convention Center Court and Fifth Avenue	4-Lane w/SM	<40,000	29,606	0.740	C	24,100/0.603/C	0.138	N
	Between Fifth Avenue and Park Boulevard	4-Lane w/RM	<40,000	33,747	0.844	D	25,700/0.643/C	0.201	N
	South of Park Boulevard	4-Lane w/RM	<40,000	23,724	0.593	C	23,300/0.583/C	0.011	N
Pacific Highway	Between Juniper Street and Hawthorn Street	6-Lane w/RM	<50,000	10,947	0.219	A	10,100/0.202/A	0.017	N
	Between Broadway and Harbor Drive	4-Lane w/SM	<40,000	10,747	0.269	A	9,900/0.248/A	0.021	N

Source: Appendix K-1

ADT = average daily traffic; RM = raised median; S? = indicates if change in V/C ratio is significant; SM = striped median; V/C = volume to capacity ratio; Δ = change in V/C ratio

Based upon the significance criteria presented above, Harbor Drive between Laurel Street and Hawthorn Street would be significantly affected by the proposed project under Near-Term Year 2021 Base Plus Project Conditions (roadway operating at LOS F for which the proposed project increases the V/C ratio by 0.01) (**Impact-C-TRA-3**).

Intersections

Table 5-17 displays intersection LOS and average vehicle delay results under Near-Term Year 2021 Base Plus Project Conditions. As shown in Table 5-17, all key study area intersections are projected to operate at acceptable LOS E or better under Near-Term Year 2021 Base Plus Project Conditions, with the exception of the following:

AM Peak:

- 16th Street and E Street
- 16th Street and F Street
- 17th Street and G Street
- Logan Avenue and I-5 southbound off-ramp
- Logan Avenue and I-5 southbound on-ramp

PM Peak:

- Pacific Highway and Grape Street
- First Avenue and Beech Street
- 14th Street and G Street
- 15th Street and F Street
- 16th Street and G Street
- 16th Street and Island Avenue
- 16th Street and K Street
- 17th Street and G Street
- 19th Street and J Street
- Logan Avenue and I-5 southbound on-ramp

Table 5-17. Peak Hour Intersection LOS Results – Near-Term Year 2021 Base Plus Project Conditions

#	Intersection	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec) AM/PM	LOS w/o Project AM/PM	Change in Delay (sec) AM/PM	Significant Impact?
		Average Delay (sec)	LOS	Average Delay (sec)	LOS				
1	Harbor Drive and Laurel Street	43.8	D	37.7	D	41.2/36.1	D/D	2.6/1.6	N/N
2	Harbor Drive and Hawthorn Street	54.6	D	15.3	B	54.6/14.9	D/B	0.0/0.4	N/N
3	Harbor Drive and Grape St	15.7	B	15.9	B	15.7/15.9	B/B	0.0/0.0	N/N
4	Harbor Drive and Ash Street	18.6	B	24.1	C	13.8/15.4	B/B	4.8/8.7	N/N
5	Harbor Drive and Broadway	14.8	B	72.1	E	14.8/72.1	B/E	0.0/0.0	N/N
6	Harbor Drive and Kettner Boulevard	18.1	B	27.2	C	18.0/27.1	B/C	0.1/0.1	N/N
7	Harbor Drive and Market Street	27.1	C	21.5	C	27.1/21.5	C/C	0.0/0.0	N/N
8	Harbor Drive and Front Street	38.4	D	48.7	D	32.2/36.6	C/D	6.2/12.1	N/N
9	First Avenue and Harbor Drive	13.0	B	27.0	C	13.0/24.3	B/C	0.0/2.7	N/N
10	Harbor Drive and Fifth Avenue	29.5	C	52.0	D	13.5/26.8	B/C	16.0/25.2	N/N
11	Park Boulevard and Harbor Drive	52.1	D	14.5	B	52.0/14.5	D/B	0.1/0.0	N/N
12	Cesar Chavez Parkway and Harbor Drive	30.8	C	38.1	D	28.9/47.8	C/D	1.9/11.1	N/N
13	Pacific Highway and Laurel Street	49.8	D	53.7	D	49.8/53.5	D/D	0.0/0.2	N/N
14	Pacific Highway and Juniper Street	9.8	A	6.2	A	9.8/6.2	A/A	0.0/0.0	N/N
15	Pacific Highway and Hawthorn Street	22.1	C	43.1	D	21.4/37.9	C/D	0.7/5.2	N/N
16	Pacific Highway and Grape Street	41.6	D	91.9	F	41.6/93.8	D/F	0.0/-1.9	N/N
17	Pacific Highway and Cedar Street	10.8	B	16.9	B	10.8/16.9	B/B	0.0/0.0	N/N
18	Pacific Highway and Ash Street	32.4	C	56.5	E	32.4/56.5	C/E	0.0/0.0	N/N
19	Pacific Highway and Grand Palm Court	15.5	B	19.7	B	15.5/19.6	B/B	0.0/0.1	N/N
20	Pacific Highway and Broadway	36.7	D	36.4	D	36.7/36.4	D/D	0.0/0.0	N/N
21	Pacific Highway and Harbor Drive	25.1	C	31.6	C	25.1/30.8	C/C	0.0/0.8	N/N
22	Front Street and Beech Street	32.8	C	16.5	B	32.8/16.0	C/B	0.0/0.5	N/N
23	Front Street and A Street	19.6	B	15.6	B	19.5/15.3	B/B	0.1/0.3	N/N
24	Front Street and Broadway	26.8	C	45.0	D	23.4/42.7	C/D	3.4/2.3	N/N

#	Intersection	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec) AM/PM	LOS w/o Project AM/PM	Change in Delay (sec) AM/PM	Significant Impact?
		Average Delay (sec)	LOS	Average Delay (sec)	LOS				
25	First Avenue and I-5 NB On-Ramp/ Elm Street	7.4	A	17.5	B	7.4/17.5	A/B	0.0/0.0	N/N
26	First Avenue and Cedar Street	17.7	B	12.5	B	17.6/12.4	B/B	0.1/0.1	N/N
27	First Avenue and Beech Street	39.6	D	147.6	F	39.6/138.6	D/F	0.0/9.0	N/Y
28	First Avenue and A Street	16.6	B	36.0	D	16.6/36.0	B/D	0.0/0.0	N/N
29	First Avenue and Broadway	59.1	E	27.3	C	56.5/26.2	E/C	2.6/1.1	N/N
30	Fifth Avenue and Cedar Street	14.8	B	18.9	B	14.6/18.7	B/B	0.2/0.2	N/N
31	Fifth Avenue and Beech Street	13.7	B	21.6	C	13.7/21.6	B/C	0.0/0.0	N/N
32	Fifth Avenue and Broadway	15.3	B	18.8	B	15.1/18.7	B/B	0.2/0.1	N/N
33	Sixth Avenue and Elm Street/ I-5 NB Off-Ramp	8.4	A	10.2	B	8.4/10.2	A/B	0.0/0.0	N/N
34	Sixth Avenue and Cedar Street	14.9	B	18.7	B	14.9/18.6	B/B	0.0/0.1	N/N
35	Ninth Street and Ash Street	12.0	B	11.1	B	12.0/11.1	B/B	0.0/0.0	N/N
36	Tenth Avenue and A Street	20.2	C	22.7	C	19.8/21.9	B/C	0.4/0.8	N/N
37	11 th Avenue and A Street	21.0	C	35.8	D	20.9/32.7	C/C	0.1/3.1	N/N
38	11 th Avenue and Broadway	12.5	B	73.5	E	12.5/70.0	B/E	0.0/3.5	N/N
39	11 th Avenue and F Street	43.3	D	66.9	E	40.9/62.0	D/E	2.4/4.9	N/N
40	11 th Avenue and G Street	16.0	B	77.9	E	15.7/74.2	B/E	0.3/3.7	N/N
41	11 th Avenue and Market Street	35.7	D	21.4	C	30.8/19.9	C/B	4.9/1.5	N/N
42	Park Boulevard and G Street	9.5	A	7.7	A	9.5/7.3	A/A	0.0/0.4	N/N
43	13 th Street and G Street	10.4	B	37.7	D	10.4/34.7	B/C	0.0/3.0	N/N
44	14 th Street and G Street	14.1	B	164.3	F	14.1/159.9	B/F	0.0/4.4	N/Y
45	15 th Street and F Street	0.2	A	455.5	F	0.2/435.6	O/F	0.0/19.9	N/Y
46	16 th Street and E Street	103.8	F	53.1	D	103.8/53.1	F/D	0.0/0.0	N/N
47	16 th Street and F Street	297.1	F	22.8	C	291.8/22.6	F/C	5.3/0.2	Y/N
48	16 th Street and G Street	16.0	B	290.7	F	15.9/286.4	B/F	0.1/4.3	N/Y

#	Intersection	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec) AM/PM	LOS w/o Project AM/PM	Change in Delay (sec) AM/PM	Significant Impact?
		Average Delay (sec)	LOS	Average Delay (sec)	LOS				
49	16 th Street and Market Street	15.4	B	25.2	C	15.4/25.2	B/C	0.0/0.0	N/N
50	16 th Street and Island Avenue	14.3	B	71.5	F	13.5/67.2	B/F	0.8/4.3	N/Y
51	16 th Street and K Street	29.2	D	93.5	F	27.5/78.5	D/F	1.7/15.0	N/Y
52	Imperial Avenue and 16 th Street	15.8	B	34.7	C	15.5/32.2	B/C	0.3/2.5	N/N
53	17 th Street and G Street	96.2	F	>500	F	94.8/>500	F/F	1.4/N/A	N/Y
54	17 th Street and J Street	13.6	B	12.9	B	12.9/12.0	B/B	0.7/0.9	N/N
55	Imperial Avenue and 17 th Street	12.6	B	12.9	B	12.6/12.9	B/B	0.0/0.0	N/N
56	19 th Street and J Street	17.0	C	97.0	F	15.0/76.4	B/F	2.0/20.6	N/Y
57	Imperial Avenue and 19 th Street	22.9	C	17.6	B	21.4/17.0	C/B	1.5/0.6	N/N
58	Logan Avenue and I-5 SB Off-Ramp	51.1	F	23.6	C	45.5/21.6	E/C	5.6/2.0	Y/N
59	Logan Avenue and I-5 SB On-Ramp	70.7	F	>500	F	65.2/>500	F/F	5.5/N/A	Y/Y

Source: Appendix K-1

NB = northbound; SB = southbound; sec = seconds

Based upon the significance criteria presented above, significant impacts are associated with the proposed project under Near-Term Year 2021 Base Plus Project Conditions at the following intersections (intersections operating at LOS F to which the proposed project will add more than 2.0 seconds of delay to) (**Impact-C-TRA-4** and **Impact-C-TRA-5**):

AM Peak:

- 16th Street and F Street
- Logan Avenue and 1-5 southbound off-ramp
- Logan Avenue and 1-5 southbound on-ramp

PM Peak:

- First Avenue and Beech Street
- 14th Street and G Street
- 15th Street and F Street
- 16th Street and G Street
- 16th Street and Island Avenue
- 16th Street and K Street
- 17th Street and G Street
- 19th Street and J Street
- Logan Avenue and I-5 southbound on-ramp

Freeway Mainline Segments

Table 5-18 displays the LOS results from the freeway mainline segment analysis under Near-Term Year 2021 Base Plus Project Conditions. As shown, all study area freeway mainline segments operate at LOS D or better, with the exception of the following.

- I-5 northbound, between Grape Street and First Avenue (LOS E, AM Peak)
- I-5 northbound, between First Avenue and SR-163 (LOS F, AM Peak)
- I-5 southbound, between First Avenue and SR-163 (LOS E, PM Peak)
- I-5 northbound, between B Street and SR-94 (LOS F, AM Peak)
- I-5 southbound, between B Street and SR-94 (LOS F, PM Peak)

Table 5-18. Freeway Mainline Analysis – Near-Term Year 2021 Base Plus Project Conditions

Freeway/ State Highway	Segment	ADT	Direction	AM Peak Hour					PM Peak Hour				
				Peak Hour Volume	V/C Ratio	LOS	Δ	S?	Peak Hour Volume	V/C Ratio	LOS	Δ	S?
I-5	Grape Street to First Avenue	175,200	NB	9,400	1.000	E	0.012	Y	5,490	0.584	C	0.006	N
			SB	5,560	0.591	C	0.006	N	8,200	0.872	D	0.010	N
	First Avenue to SR-163	225,300	NB	12,090	1.286	F	0.003	N	7,060	0.751	D	0.001	N
			SB	7,150	0.609	C	0.001	N	10,550	0.898	E	0.002	N
	SR-163 and B Street	232,300	NB	12,410	0.880	D	0.001	N	7,250	0.514	C	0.001	N
			SB	7,340	0.521	C	0.001	N	10,830	0.768	D	0.001	N
	B Street to SR-94	232,300	NB	12,450	1.324	F	0.002	N	7,270	0.773	D	0.001	N
			SB	7,370	0.784	D	0.001	N	10,860	1.155	F	0.002	N
	SR-94 to Imperial Avenue	189,500	NB	10,130	0.862	D	0.002	N	5,920	0.504	C	0.001	N
			SB	6,000	0.511	C	0.001	N	8,840	0.752	D	0.001	N
	Imperial Avenue to SR-75	186,500	NB	9,990	0.850	D	0.006	N	5,840	0.497	B	0.003	N
			SB	5,920	0.504	C	0.004	N	8,720	0.742	D	0.005	N

Source: Appendix K-1

ADT = average daily traffic; RM = raised median; S? = indicates if change in V/C ratio is significant; SM = striped median; V/C = volume to capacity ratio; Δ = change in V/C ratio

Based on the City of San Diego's Significance Criteria, outlined above, the traffic associated with the proposed project would cause a significant change in the V/C ratio (add more than 0.010 for LOS E) to the segment of I-5 northbound, between Grape Street and First Avenue during the AM peak hour. Therefore, the proposed project would significantly affect this segment of mainline freeway (**Impact-C-TRA-6**).

Future Year 2035 Base Plus Project Conditions

As noted above, it is assumed that Park Boulevard will be extended to connect with Harbor Drive under Future Year 2035 Plus Project Conditions. This assumed roadway connection will have a substantial effect on the proposed project trip assignment because it will enable a direct route from the project site to the I-5/Imperial Avenue and I-5/J Street ramps, which will redirect project-generated traffic from the I-5/First Avenue and Front Street ramps, as well as the I-5 Logan Avenue ramps. Therefore, under Future Year 2035 Plus Project Conditions it is assumed that the traffic coming to/from the proposed project to/from I-5 will use the Imperial and J Street Ramps exclusively. Future Year 2035 Base Plus Project traffic volumes were derived by combining the Future Year 2035 Base traffic volumes and the project trip assignment volumes.

Roadway Segments

Table 5-19 displays the LOS analysis results for key roadway segments under Future Year 2035 Base Plus Project Conditions. As shown in Table 5-19, all key study roadway segments are projected to operate at LOS C or better under Future Year 2035 Base Plus Project Conditions, with the exception of Harbor Drive, between Laurel Street and Hawthorn Street, which is projected to operate at LOS F. The proposed project would increase the V/C ratio along this roadway segment by 1.073, which would exceed the City of San Diego thresholds of 0.01 for a roadway segment that is operating at LOS F. Therefore, the proposed project would result in a significant impact on Harbor Drive between Laurel Street and Hawthorne Street during the AM peak hour (**Impact-C-TRA-7**).

Table 5-19. Roadway Segment LOS Results – Future Year 2035 Base Plus Project Conditions

Roadway	Segment	Cross-Section	Threshold (LOS E)	Future Year 2035 Base + Project			Future Year 2035 Base			Δ	Sig?
				ADT	V/C	LOS	ADT/	V/C /	LOS		
Harbor Drive	Between Laurel Street and Hawthorn Street	6-Lane w/RM	<60,000	64,394	1.073	F	62,700/1.045/F	0.028	Y		
	Between Pacific Highway and Kettner Boulevard	6-Lane w/RM	<50,000	28,341	0.567	B	25,800/0.516/B	0.051	N		
	Between Kettner Boulevard and Market Street	6-Lane w/RM	<50,000	31,241	0.625	B	28,700/0.574/C	0.051	N		
	Between Market Street and Front Street	6-Lane w/RM	<50,000	28,541	0.571	B	26,000/0.520/B	0.051	N		
	Between Front Street and First Avenue	4-Lane w/SM	<40,000	30,541	0.764	C	28,000/0.700/C	0.064	N		
	Between First Avenue and Convention Center Court	4-Lane w/RM	<40,000	29,841	0.746	C	27,300/0.683/C	0.064	N		
	Between Convention Center Court and Fifth Avenue	4-Lane w/SM	<40,000	29,841	0.746	C	27,300/0.683/C	0.064	N		
	Between Fifth Avenue and Park Boulevard	4-Lane w/RM	<40,000	32,065	0.802	C	29,100/0.728/C	0.074	N		
	South of Park Boulevard	4-Lane w/RM	<40,000	27,400	0.685	C	27,400/0.685/C	0.000	N		
Pacific Highway	Between Juniper Street and Hawthorn Street	4-Lane w/RM	<40,000	13,247	0.331	A	12,400/0.310/A	0.021	N		
	Between Broadway and Harbor Drive	4-Lane w/SM	<40,000	10,847	0.271	A	10,000/0.250/A	0.021	N		

Source: Appendix K-1

ADT = average daily traffic; RM = raised median; S? = indicates if change in V/C ratio is significant; SM = striped median; V/C = volume to capacity ratio; Δ = change in V/C ratio

Intersections

Table 5-20 displays intersection LOS and average vehicle delay results under Future Year 2035 Base Plus Project Conditions (LOS calculation worksheets for this scenario are provided in Appendix K-1).

Table 5-20. Peak Hour Intersection LOS Results – Future Year 2035 Base Plus Project Conditions

#	Intersection	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec) AM/PM	LOS w/o Project AM/PM	Change in Delay (sec) AM/PM	Significant Impact?
		Average Delay (sec)	LOS	Average Delay (sec)	LOS				
1	Harbor Drive and Laurel Street	133.4	F	109.8	F	132.2/109.0	F/F	1.2/0.8	N/N
2	Harbor Drive and Hawthorn Street	52.2	D	33.4	C	52.1/31.5	D/C	0.1/1.9	N/N
3	Harbor Drive and Grape Street	20.2	C	73.5	E	20.0/62.5	B/E	0.2/11.0	N/N
4	Harbor Drive and Ash Street	19.1	B	50.5	D	19.1/50.5	B/D	0.0/0.0	N/N
5	Harbor Drive and Broadway	30.2	C	82.9	F	31.3/87.6	C/F	-1.1/-4.7	N/N
6	Harbor Drive and Kettner Boulevard	20.5	C	41.4	D	20.5/40.4	C/D	0.0/1.0	N/N
7	Harbor Drive and Market Street	34.5	C	23.4	C	34.3/22.4	C/C	0.2/1.0	N/N
8	Harbor Drive and Front Street	33.6	C	16.5	B	30.6/15.7	C/B	3.0/0.8	N/N
9	First Avenue and Harbor Drive	18.7	B	40.3	D	18.7/37.9	B/D	0.0/2.4	N/N
10	Harbor Drive and Fifth Avenue	21.6	C	26.0	C	21.3/24.6	C/C	0.3/1.4	N/N
11	Park Boulevard and Harbor Drive	58.3	E	62.3	E	49.4/42.7	D/D	8.9/19.6	N/N
12	Cesar Chavez Parkway and Harbor Drive	35.9	D	119.1	F	23.3/134.0	C/F	3.6/-14.9	N/N
13	Pacific Highway and Laurel Street	101.9	F	143.5	F	101.9/143.5	F/F	0.0/0.0	N/N
14	Pacific Highway and Juniper Street	8.3	A	8.6	A	8.3/8.6	A/A	0.0/0.0	N/N
15	Pacific Highway and Hawthorn Street	45.3	D	32.4	C	44.6/31.4	D/C	0.7/1.0	N/N
16	Pacific Highway and Grape Street	51.2	D	80.5	F	51.2/79.7	D/E	0.0/0.8	N/N
17	Pacific Highway and Cedar Street	13.9	B	43.0	D	13.9/40.6	B/D	0.0/2.4	N/N
18	Pacific Highway and Ash Street	65.7	E	50.2	D	66.7/50.1	E/D	-1.0/0.1	N/N
19	Pacific Highway and Grand Palm Court	17.9	B	25.8	C	17.9/24.9	B/C	0.0/0.9	N/N
20	Pacific Highway and Broadway	32.9	C	38.8	D	32.9/38.8	C/D	0.0/0.0	N/N
21	Pacific Highway and Harbor Drive	22.8	C	27.0	C	22.8/25.9	C/C	0.0/1.1	N/N
22	Front Street and Beech Street	162.1	F	25.4	C	162.1/25.4	F/C	0.0/0.0	N/N

#	Intersection	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec) AM/PM	LOS w/o Project AM/PM	Change in Delay (sec) AM/PM	Significant Impact?
		Average Delay (sec)	LOS	Average Delay (sec)	LOS				
23	Front Street and A Street	21.5	C	62.7	E	21.5/62.7	C/E	0.0/0.0	N/N
24	Front Street and Broadway	55.5	E	144.3	F	52.5/140.2	D/F	3.0/4.1	N/Y
25	First Avenue and I-5 NB On- Ramp/Elm Street	7.0	A	6.4	A	7.0/6.4	A/A	0.0/0.0	N/N
26	First Avenue and Cedar Street	7.3	A	8.1	A	7.3/8.1	A/A	0.0/0.0	N/N
27	First Avenue and Beech Street	32.3	C	125.4	F	32.3/125.4	C/F	0.0/0.0	N/N
28	First Avenue and A Street	10.1	B	92.3	F	10.1/92.3	B/F	0.0/0.0	N/N
29	First Avenue and Broadway	148.8	F	86.7	F	147.3/84.5	F/F	1.5/2.2	N/Y
30	Fifth Avenue and Cedar Street	23.1	C	19.9	B	23.1/19.9	C/B	0.0/0.0	N/N
31	Fifth Avenue and Beech Street	17.5	B	39.4	D	17.5/39.4	B/D	0.0/0.0	N/N
32	Fifth Avenue and Broadway	19.9	B	47.2	D	19.8/47.2	B/D	0.1/0.0	N/N
33	Sixth Avenue and Elm Street/I-5 NB Off-Ramp	15.6	B	8.5	A	15.6/8.5	B/A	0.0/0.0	N/N
34	Sixth Avenue and Cedar Street	57.4	E	19.5	B	57.4/19.5	E/B	0.0/0.0	N/N
35	Ninth Street and Ash Street	12.8	B	10.3	B	12.8/10.3	B/B	0.0/0.0	N/N
36	Tenth Avenue and A Street	24.2	C	42.8	D	24.2/42.8	C/D	0.0/0.0	N/N
37	11 th Avenue and A Street	26.9	C	37.6	D	26.7/34.3	C/C	0.2/3.3	N/N
38	11 th Avenue and Broadway	32.6	C	100.3	F	29.9/95.9	C/F	2.7/4.4	N/Y
39	11 th Avenue and F Street	75.2	E	42.8	D	70.7/38.7	E/D	4.5/4.1	N/N
40	11 th Avenue and G Street	13.2	B	157.6	F	13.2/152.6	B/F	0.0/5.0	N/Y
41	11 th Avenue and Market Street	54.3	D	100.0	F	48.8/88.6	D/F	5.5/11.4	N/Y
42	Park Boulevard and G Street	9.4	A	134.8	F	9.2/130.8	A/F	0.2/4.0	N/Y
43	13 th Street and G Street	62.1	E	373.7	F	59.5/369.3	E/F	2.6/4.4	N/Y
44	14 th Street and G Street	10.8	B	302.2	F	10.8/297.6	B/F	0.0/4.6	N/Y
45	15 th Street and F Street	>500	F	606.4	F	>500/554.6	F/F	N/A/51.8	Y/Y
46	16 th Street and E Street	188.5	F	60.8	E	188.5/60.8	F/E	0.0/0.0	N/N
47	16 th Street and F Street	156.7	F	58.0	E	153.5/52.6	F/D	3.2/5.4	Y/N
48	16 th Street and G Street	13.3	B	290.3	F	13.1/286.7	B/F	0.2/3.6	N/Y

#	Intersection	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec) AM/PM	LOS w/o Project AM/PM	Change in Delay (sec) AM/PM	Significant Impact?
		Average Delay (sec)	LOS	Average Delay (sec)	LOS				
49	16 th Street and Market Street	17.1	B	35.6	D	17.1/35.6	B/D	0.0/0.0	N/N
50	16 th Street and Island Avenue	15.2	C	89.5	F	15.2/89.5	C/F	0.0/0.0	N/N
51	16 th Street and K Street	24.4	C	63.4	F	21.5/47.7	C/E	2.9/15.7	N/Y
52	Imperial Avenue and 16 th Street	26.0	C	126.7	F	21.9/80.5	C/F	4.1/46.2	N/Y
53	17 th Street and G Street	263.2	F	>500	F	263.2/>500	F/F	0.0/N/A	N/Y
54	17 th Street and J Street	14.2	B	18.9	B	13.5/17.1	B/B	0.7/1.8	N/N
55	Imperial Avenue and 17 th Street	14.8	B	11.0	B	14.0/10.6	B/B	0.8/0.4	N/N
56	19 th Street and J Street	18.3	C	135.9	F	16.3/140.7	C/F	2.0/-4.8	N/N
57	Imperial Avenue and 19 th Street	26.7	C	22.0	C	23.3/22.0	C/C	3.4/0.0	N/N
58	Logan Avenue and I-5 SB Off-Ramp	13.0	B	79.5	F	13.0/79.5	B/F	0.0/0.0	N/N
59	Logan Avenue and I-5 SB On-Ramp	169.8	F	>500	F	169.8/>500	F/F	0.0/0.0	N/N

Source: Appendix K-1

NB = northbound; SB = southbound; sec = seconds

As shown, the following intersections are projected to operate at LOS F under Future Year 2035 Base Plus Project Conditions.

AM Peak

- Harbor Drive and Laurel Street
- Pacific Highway and Laurel Street
- Front Street and Beech Street
- First Avenue and Broadway
- 15th Street and F Street
- 16th Street and E Street
- 16th Street and F Street
- 17th Street and G Street
- Logan Avenue and I-5 southbound on-ramp

PM Peak

- Harbor Drive and Laurel Street
- Harbor Drive and Broadway
- Caesar Chavez Parkway and Harbor Drive
- Pacific Highway and Laurel Street
- Pacific Highway and Grape Street
- Front Street and Broadway
- First Avenue and Beech Street
- First Avenue and A Street
- First Avenue and Broadway
- 11th Avenue and Broadway
- 11th Avenue and G Street
- 11th Avenue and Market Street
- Park Boulevard and G Street
- 13th Street and G Street
- 14th Street and G Street
- 15th Street and F Street
- 16th Street and G Street
- 16th Street and Island Avenue
- 16th Street and K Street
- Imperial Avenue and 16th Street
- 17th Street and G Street
- 19th Street and J Street
- Logan Avenue and I-5 southbound off-ramp
- Logan Avenue and I-5 southbound on-ramp

Based upon the City's significance criteria presented above, project-generated traffic would make a cumulatively considerable contribution to the following failing intersections under Future Year 2035 Base Plus Project Conditions (i.e., intersections operating at LOS F to which the proposed project will add more than 2.0 seconds of delay).

AM Peak

- 16th Street and F Street
- 17th Street and G Street

PM Peak

- Front Street and Broadway
- First Avenue and Broadway
- 11th Avenue and Broadway
- 11th Avenue and G Street
- 11th Avenue and Market Street
- Park Boulevard and G Street
- 13th and G Street
- 14th Street and G Street
- 15th Street and F Street
- 16th Street and G Street

- 16th Street and K Street
- Imperial Avenue and 16th Street

At the following intersections, delay is longer than the calculation capacity of the traffic analysis software. However, the addition of project traffic will likely result in a significant impact.

AM Peak

- 15th Street and F Street

PM Peak

- 17th Street and G Street

Therefore, the proposed project would result in a cumulatively considerable contribution at these study area intersections, and impacts would be significant (**Impact-C-TRA-8** and **Impact-C-TRA-9**).

Freeway Mainline Segments

Table 5-21 displays the LOS results from the freeway mainline segment analysis under Future Year 2035 Base Plus Project Conditions.

Table 5-21. Freeway Mainline Analysis – Future Year 2035 Base Plus Project Conditions

Freeway/ State Highway	Segment	ADT	Direction	AM Peak Hour					PM Peak Hour				
				Peak Hour Volume	V/C Ratio	LOS	Δ	S?	Peak Hour Volume	V/C Ratio	LOS	Δ	S?
I-5	Grape Street to First Avenue	175,200	NB	9,920	1.055	F	0.011	Y	5,800	0.617	C	0.007	N
			SB	5,870	0.624	C	0.007	N	8,650	0.920	E	0.009	N
	First Avenue to SR-163	225,300	NB	13,660	1.453	F	0.012	Y	7,980	0.849	D	0.006	N
			SB	8,080	0.688	C	0.005	N	11,920	1.014	F	0.008	Y
	SR-163 and B Street	232,300	NB	13,610	0.965	E	0.008	N	7,950	0.564	C	0.004	N
			SB	8,060	0.572	C	0.005	N	11,880	0.843	D	0.008	N
	B Street to SR-94	232,300	NB	13,650	1.452	F	0.012	Y	7,980	0.849	D	0.008	N
			SB	8,080	0.860	D	0.008	N	11,910	1.267	F	0.010	Y
	SR-94 to Imperial Avenue	189,500	NB	12,230	1.041	F	0.010	Y	7,150	0.609	C	0.006	N
			SB	7,240	0.616	C	0.006	N	10,670	0.908	E	0.008	N
	Imperial Avenue to SR-75	186,500	NB	12,010	1.022	F	0.005	N	7,020	0.597	C	0.003	N
			SB	7,110	0.605	C	0.003	N	10,480	0.892	E	0.005	N

Source: Appendix K-1

Notes:

The capacity, directional split, peak hour %, and heavy vehicle % are assumed to be the same as existing conditions.

Bold letter indicates substandard LOS E or F.

ADT = average daily traffic; RM = raised median; S? = indicates if change in V/C ratio is significant; SM = striped median; V/C = volume to capacity ratio; Δ = change in V/C ratio

As shown, all study area freeway mainline segments operate at LOS D or better, with the exception of the following.

- I-5 northbound, between Grape Street and First Avenue (LOS F, AM Peak)
- I-5 southbound, between Grape Street and First Avenue (LOS E, PM Peak)
- I-5 northbound, between First Avenue and SR-163 (LOS F, AM Peak)
- I-5 southbound, between First Avenue and SR-163 (LOS E, PM Peak)
- I-5 northbound, between SR-163 and B Street (LOS E, AM Peak)
- I-5 northbound, between B Street and SR-94 (LOS F, AM Peak)
- I-5 southbound, between B Street and SR-94 (LOS F, PM Peak)
- I-5 northbound, between SR-94 and Imperial Avenue (LOS F, AM Peak)
- I-5 southbound, between SR-94 and Imperial Avenue (LOS E, PM Peak)
- I-5 northbound, between Imperial Avenue and SR-75 (LOS F, AM Peak)
- I-5 southbound, between Imperial Avenue and SR-75 (LOS E, PM Peak)

Based on the City of San Diego's Significance Criteria summarized above, the traffic associated with the proposed project would cause a significant change in the V/C ratio (add more than 0.010 for LOS E or 0.005 for LOS F) to the following segments during the AM peak hour.

- I-5 northbound, between Grape Street and First Avenue (LOS F)
- I-5 northbound, between First Avenue and SR-163 (LOS F)
- I-5 northbound, between B Street and SR-94 (LOS F)
- I-5 northbound, between SR-94 and Imperial Avenue (LOS F)

Traffic associated with the proposed project would cause a significant change in the V/C ratio (add more than 0.010 for LOS E or 0.005 for LOS F) to the following segments during the PM peak hour.

- I-5 southbound, between First Avenue and SR-163 (LOS F)
- I-5 southbound, between B Street and SR-94 (LOS F)

As such, the proposed project would result in a cumulatively considerable contribution to an existing cumulative impact, and impacts on freeway mainline segments would be significant (**Impact-C-TRA-10**).

Parking

The proposed project would result in a parking shortfall. Therefore, there would be a deficit of parking that would not be sufficient to meet the projected demand unless alternative parking is secured at the SDCC. Consequently, the proposed project's contribution to significant impacts on parking supply from past, present, and reasonably foreseeable future projects would be cumulatively considerable (**Impact-C-TRA-11**).

5.3.12.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative transportation impacts would be cumulatively considerable prior to mitigation. Potential cumulatively considerable impact(s) include:

Impact-C-TRA-1: Near-Term Construction-Related Impact on the Roadway Segment of 28th Street between National Avenue and Boston Avenue. Construction of the proposed project would worsen the existing LOS along 28th Street between National Avenue and Boston Avenue from an already unacceptable LOS E to LOS F under 2021 near-term conditions. Therefore, impacts would be significant.

Impact-C-TRA-2: Near-Term Construction-Related Impacts on Study Area Intersections: Sampson Street/Harbor Drive; I-5 Southbound On-Ramp/Boston Avenue. Construction of the proposed project would worsen the existing delay experienced during peak hours at the study area intersections of Sampson Street and Harbor Drive and I-5 southbound on-ramp and Boston Avenue by more than 2.0 seconds under 2021 near-term conditions.

Impact-C-TRA-3: Failing Roadway Segment – Harbor Drive between Laurel Street and Hawthorne Street (Near-Term). Near-term operation of the proposed project would worsen conditions along Harbor Drive between Laurel Street and Hawthorne Street, which operates at an LOS F, by increasing the V/C ratio by more than 0.01.

Impact-C-TRA-4: Failing Intersections in AM Peak Hour in Near-Term Cumulative Conditions: 16th Street/F Street; Logan Avenue/I-5 Southbound Off-Ramp; and Logan Avenue/I-5 Southbound On-Ramp. Operation of the proposed project would worsen existing delays at failing study area intersections during the AM peak hour under near-term conditions as follows.

- 16th and F Streets – 5.3 seconds
- Logan Avenue and I-5 southbound off-ramp – 5.6 seconds
- Logan Avenue and I-5 southbound on-ramp – 5.5 seconds

Impact-C-TRA-5: Failing Intersections in PM Peak Hour in Near-Term Cumulative Conditions: First Avenue/Beech Street; 14th Street/G Street; 15th Street/F Street; 16th Street/G Street; 16th Street/Island Avenue; 16th Street/K Street; 17th Street/G Street; 19th Street/J Street; Logan Avenue/I-5 Southbound On-Ramp. Operation of the proposed project would worsen existing delays at failing study area intersections during the PM peak hour under near-term conditions as follows.

- First Avenue and Beech Street – 9 seconds
- 14th and G Streets – 4.4 seconds
- 15th and F Streets – 19.9 seconds
- 16th and G Streets – 4.3 seconds
- 16th Street and Island Avenue – 4.3 seconds
- 16th and K Streets – 15 seconds
- 17th and G Streets – by more than 2.0 seconds (delay exceeds calculation capacity of the traffic analysis software)

- 19th and J Streets – 20.6 seconds
- Logan Avenue and I-5 southbound on-ramp – by more than 2.0 seconds (delay exceeds calculation capacity of the traffic analysis software)

Impact-C-TRA-6: Failing Freeway Mainline Segment during AM Peak Hour under Near-Term Cumulative Conditions: I-5 Northbound, between Grape Street and First Avenue.

Operation of the proposed project would worsen the existing V/C ratio along northbound I-5 between Grape Street and First Avenue, which currently operates at LOS E, by 0.012 during the AM peak period.

Impact-C-TRA-7: Failing Roadway Segment – Harbor Drive between Laurel Street and Hawthorne Street (Future Year). Long-term operation of the proposed project would worsen conditions along Harbor Drive between Laurel Street and Hawthorne Street, which operates at an LOS F, by increasing the V/C ratio by more than 0.01.

Impact-C-TRA-8: Failing Intersections in AM Peak Hour in Future Year Cumulative Conditions: 16th Street/F Street; 15th Street/F Street; and 17th Street/G Street. Operation of the proposed project would worsen existing delays at failing study area intersections during the AM peak hour under Future Year conditions as follows.

- 15th and F Streets – by more than 2.0 seconds (delay exceeds calculation capacity of the traffic analysis software)
- 16th and F Streets – 3.2 seconds
- 17th Street and G Street – by more than 2.0 seconds (delay exceeds calculation capacity of the traffic analysis software)

Impact-C-TRA-9: Failing Intersections in PM Peak Hour in Future Year Cumulative Conditions: Front Street and Broadway; First Avenue and Broadway; 11th Avenue and Broadway; 11th Avenue and G Street; 11th Avenue and Market Street; Park Boulevard and G Street; 13th Street and G Street; 14th Street and G Street; 15th Street and F Street; 16th Street and G Street; 16th Street and K Street; Imperial Avenue and 16th Street; and 17th and G Streets. Operation of the proposed project would worsen existing delays at failing study area intersections during the PM peak hour under Future Year conditions as follows.

- Front Street and Broadway – 4.1 seconds
- First Avenue and Broadway – 2.2 seconds
- 11th Avenue and Broadway – 4.4 seconds
- 11th Avenue and G Street – 5.0 seconds
- 11th Avenue and Market Street – 11.4 seconds
- Park Boulevard and G Street – 4.0 seconds
- 13th Street and G Street – 4.4 seconds
- 14th Street and G Street – 4.6 seconds
- 15th Street and F Street – 51.8 seconds
- 16th and G Street – 3.6 seconds
- 16th Street and K Street – 15.7 seconds

- Imperial Avenue and 16th Street – 46.2 seconds
- 17th and G Streets – more than 2.0 seconds (delay exceeds calculation capacity of the traffic analysis software)

Impact-C-TRA-10: Failing Freeway Mainline Segment during AM Peak Hour under Future Year Cumulative Conditions: I-5 Northbound, between Grape Street and First Avenue, First Avenue and SR-163, B Street and SR-94, and SR-94 and Imperial Avenue; and during the PM Peak Hour I-5 Southbound between First Avenue and SR-163 and B Street and SR-94. Operation of the proposed project would cause a significant change in the V/C ratio (i.e., add more than 0.010 for LOS E or 0.005 for LOS F) along the following northbound I-5 segments that are projected to operate at LOS F during the AM peak period.

- Between Grape Street and First Avenue – 0.011
- Between First Avenue and SR-163 – 0.012
- Between B Street and SR-94 – 0.012
- Between SR-94 and Imperial Avenue – 0.010

In addition, the proposed project would cause a significant change in the V/C ratio along the following southbound I-5 segments that are currently operating at LOS F.

- Between First Avenue and SR-163 – 0.008
- Between B Street and SR-94 – 0.010

Impact-C-TRA-11: Cumulatively Considerable Contribution to a Cumulative Parking Impact. Reasonably foreseeable future projects are expected to contribute to a parking deficit in the downtown area. The proposed project's contribution to the cumulative parking impact from past, present, and reasonably foreseeable future projects would be cumulatively considerable and significant.

5.3.12.5 Mitigation Measures

For **Impact-C-TRA-1** and **Impact-C-TRA-2**:

Implement **MM-TRA-1: Transportation Demand Management Plan.**

For **Impact-C-TRA-3**:

To reduce impacts along Harbor Drive between Laurel Street and Hawthorn Street to less-than-significant levels, Harbor Drive would need to be widened from a six-lane major facility to an eight-lane facility. However, this improvement is not possible due to right-of-way constraints within the corridor. Therefore, there are no physical improvements available that would mitigate this impact.

For **Impact-C-TRA-4**:

16th Street/F Street:

This intersection was identified as failing in the Downtown Community Plan with no feasible mitigation identified to improve operations. Therefore, the Downtown Community Plan EIR identified the future impacts on this intersection to be significant and unavoidable. To maintain

consistency with the vision of the Downtown Community Plan no project-related improvements are recommended at this intersection.

Logan Avenue/Southbound I-5 Off-Ramp:

MM-C-TRA-1: Signalization of Logan Avenue/I-5 Southbound Off-Ramp. Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 22 percent of the improvement costs to install a traffic signal at the intersection of Logan Avenue and the southbound I-5 off-ramp. Installation of the traffic signal will require approval from the California Department of Transportation (Caltrans).

Logan Avenue/Southbound I-5 On-Ramp:

MM-C-TRA-2: Signalization of Logan Avenue/I-5 Southbound On-Ramp. Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 6 percent of the improvement costs to install a traffic signal at the intersection of Logan Avenue and the southbound I-5 on-ramp. Installation of the traffic signal will require approval from Caltrans.

For **Impact-C-TRA-5:**

First Avenue/Beech Street:

This intersection was identified as failing in the Downtown Community Plan with no feasible mitigation identified to improve operations. Therefore, the Downtown Community Plan EIR identified the future impacts to this intersection to be significant and unavoidable. To maintain consistency with the vision of the Downtown Community Plan, no project-related improvements are recommended at this intersection. It should be noted that this impact will become less than significant with the extension of Park Boulevard to Harbor Drive, as shown under Future Year 2035 conditions. This new connection will reroute project traffic coming to/from I-5 from the First Avenue ramp to the Imperial Avenue ramps.

14th Street/G Street:

MM-C-TRA-3: New Travel Lane on G Street (3 Percent Fair-Share). Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 3 percent of the improvement costs to convert the on-street parking to a travel lane on G Street between 11th Avenue and 17th Street during the PM peak hour for impacts occurring at the intersection of 14th and G Streets, per the recommendations in the Downtown Community Plan. Conversion of on-street parking to a travel lane will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.

15th Street/F Street:

MM-C-TRA-4: Signalization of the Intersection of 15th Street and F Street. Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 4 percent of the improvement costs to install a traffic signal at the intersection of 15th Street and F Street, per the recommendations on the Downtown Community Plan. Installation of the traffic signal will require approval from the City of San Diego. Should this

mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.

16th Street/G Street:

MM-C-TRA-5: New Travel Lane on G Street (2 Percent Fair Share). Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 2 percent of the improvement costs to convert the on-street parking to a travel lane on G Street between 11th Avenue and 17th Street during the PM peak hour for impacts occurring at the intersection of Park Boulevard and G Street, per the recommendations in the Downtown Community Plan. Conversion of on-street parking to a travel lane will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.

16th Street/Island Avenue:

MM-C-TRA-6: Signalization of the Intersection of 16th Street and Island Avenue. Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 18 percent of the improvement costs to install a traffic signal at the intersection of 16th Street and Island Avenue, per the recommendations on the Downtown Community Plan. Installation of the traffic signal will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.

16th Street/K Street:

MM-C-TRA-7: Signalization of the Intersection of 16th Street and K Street. Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 9 percent of the improvement costs to install a traffic signal at the intersection of 16th Street and K Street, per the recommendations on the Downtown Community Plan. Installation of the traffic signal will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.

17th Street/G Street:

MM-C-TRA-8: Signalization of 17th Street and G Street Intersection. Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 2 percent of the improvement costs to install a traffic signal at the intersection of 17th Street and G Street, per the recommendations on the Downtown Community Plan. Installation of the traffic signal will require approval from the City of San Diego.

19th Street/J Street:

MM-C-TRA-9: Restriping Left-Turn Lane on J Street. Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 20 percent of the improvement costs to restripe the northbound left-turn lane along J Street

at its intersection with 19th Street into a northbound left-turn and through-shared lane, per the recommendations on the Downtown Community Plan. Restriping of J Street will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.

Logan Avenue/I-5 On-Ramp:

Implement **MM-C-TRA-2**.

For **Impact-C-TRA-6**:

Implement **MM-TRA-5: Compliance with San Diego Forward: The Regional Plan, I-5 Operational Improvements**.

For **Impact-C-TRA-7**:

To reduce impacts along Harbor Drive between Laurel Street and Hawthorn Street to less-than-significant levels, Harbor Drive would need to be widened from a six-lane major facility to an eight-lane facility. However, this improvement is not feasible due to right-of-way constraints within the corridor. Therefore, there are no physical improvements available that would mitigate this impact.

For **Impact-C-TRA-8**:

16th Street/F Street:

This intersection was identified as failing in the Downtown Community Plan with no feasible mitigation identified to improve operations. Therefore, the Downtown Community Plan EIR identified the future impacts to this intersection to be significant and unavoidable. To maintain consistency with the vision of the Downtown Community Plan no project-related improvements are recommended at this intersection.

15th Street/F Street:

Implement **MM-C-TRA-4**.

17th Street/G Street:

Implement **MM-C-TRA-8**.

For **Impact-C-TRA-9**:

Front Street/Broadway:

This intersection was identified as failing in the Downtown Community Plan with no feasible mitigation identified to improve operations. Therefore, the Downtown Community Plan EIR identified the future impacts to this intersection to be significant and unavoidable. To maintain consistency with the vision of the Downtown Community Plan no project-related improvements are recommended at this intersection.

First Avenue/Broadway:

This intersection was identified as failing in the Downtown Community Plan with no feasible mitigation identified to improve operations. Therefore, the Downtown Community Plan EIR identified the future impacts to this intersection to be significant and unavoidable. To maintain consistency with the vision of the Downtown Community Plan no project-related improvements are recommended at this intersection.

11th Avenue/Broadway:

This intersection was identified as failing in the Downtown Community Plan with no feasible mitigation identified to improve operations. Therefore, the Downtown Community Plan EIR identified the future impacts to this intersection to be significant and unavoidable. To maintain consistency with the vision of the Downtown Community Plan no project-related improvements are recommended at this intersection.

11th Avenue/G Street:

MM-C-TRA-10: New Travel Lane on G Street (1 Percent Fair Share). Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 1 percent of the improvement costs to convert the on-street parking to a travel lane on G Street between 11th Avenue and 17th Street during the PM peak hour for impacts occurring at the intersection of 11th Avenue and G Streets, per the recommendations in the Downtown Community Plan. Conversion of on-street parking to a travel lane will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.

11th Avenue/Market Street:

This intersection was identified as failing in the Downtown Community Plan with no feasible mitigation identified to improve operations. Therefore, the Downtown Community Plan EIR identified the future impacts to this intersection to be significant and unavoidable. To maintain consistency with the vision of the Downtown Community Plan no project-related improvements are recommended at this intersection.

Park Boulevard/G Street:

MM-C-TRA-11: New Travel Lane on G Street (2 Percent Fair Share). Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 2 percent of the improvement costs to convert the on-street parking to a travel lane on G Street between 11th Avenue and 17th Street during the PM peak hour for impacts occurring at the intersection of Park Boulevard and G Street, per the recommendations in the Downtown Community Plan. Conversion of on-street parking to a travel lane will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.

13th Street/G Street:

MM-C-TRA-12: New Travel Lane on G Street (1 Percent Fair Share). Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 1 percent of the improvement costs to convert the on-street parking to a travel lane on G Street between 11th Avenue and 17th Street during the PM peak hour for impacts occurring at the intersection of Park Boulevard and G Street, per the recommendations in the Downtown Community Plan. Conversion of on-street parking to a travel lane will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.

14th Street/G Street:

MM-C-TRA-13: New Travel Lane on G Street (3 Percent Fair Share). Prior to issuance of occupancy permits, the project proponent shall provide proof to the District of payment of a fair-share contribution of 3 percent of the improvement costs to convert the on-street parking to a travel lane on G Street between 11th Avenue and 17th Street during the PM peak hour for impacts occurring at the intersection of Park Boulevard and G Street, per the recommendations in the Downtown Community Plan. Conversion of on-street parking to a travel lane will require approval from the City of San Diego. Should this mitigation measure be determined infeasible after consultation with the City of San Diego, the project proponent must supply evidence to the District's satisfaction to allow the project to proceed to occupancy.

15th Street/F Street:

Implement **MM-C-TRA-4**.

16th Street/G Street:

Implement **MM-C-TRA-5**. For **Impact-C-TRA-10**:

Implement **MM-TRA-5: Compliance with San Diego Forward: The Regional Plan, I-5 Operational Improvements**.

For **Impact-C-TRA-11**:

Implement **MM-TRA-8: Implement a Parking Management Plan that Provides Parking Management Strategies**.

5.3.12.6 Level of Significance after Mitigation

As summarized in Table 5-1 above, implementation of **MM-TRA-1** (Transportation Demand Management Plan) would help to reduce potential impacts identified under **Impact-C-TRA-1** and **Impact-C-TRA-2**; however, it cannot be determined with certainty that the impacts would be reduced to less-than-significant levels. As such, construction traffic-related impacts on study area roadway segments and intersections would be significant and unavoidable.

To remain consistent with the City of San Diego's Downtown Community Plan, no mitigation measures are recommended to reduce the impacts on the roadway segment of Harbor Drive between Laurel Street and Hawthorne Street; therefore, **Impact-C-TRA-3** and **Impact-C-TRA-7** would remain significant and unavoidable.

Mitigation measures **MM-C-TRA-1** through **MM-C-TRA-14** would reduce project-related impacts on study area intersections; however, because all of these intersections are controlled by other jurisdictions, including the City of San Diego and Caltrans, and the District does not have jurisdiction to ensure that improvements are completed, it cannot be certain that the mitigation would be implemented when needed or at all. In addition, for some intersections, to remain consistent with the City of San Diego's Downtown Community Plan, no mitigation measures are recommended to reduce impacts. As such, **Impact-C-TRA-4**, **Impact-C-TRA-5**, **Impact-C-TRA-8**, and **Impact-C-TRA-9** would remain significant and unavoidable.

San Diego Association of Governments' (SANDAG's) The Regional Plan includes a series of operational improvements along I-5 between I-15 and I-8, which would encompass the segments of northbound and southbound I-5 that would be affected by the proposed project. However, these improvements are not scheduled until Year 2050. These improvements are also subject to budget availability and coordination with Caltrans. At the moment, there is no program in place into which the project proponent could pay its fair share toward the cost of such improvements. Therefore, improvements are considered infeasible, and the impacts on freeway segments along northbound and southbound I-5 under near-term and future year conditions (**Impact-C-TRA-6** and **Impact-C-TRA-10**) would remain significant and unavoidable.

With implementation of **MM-TRA-7**, impacts on permanent parking supply (**Impact-C-TRA-11**) would be reduced through the implementation of a parking management plan. However, given that a substantial deficit in the onsite parking supply would remain even with implementation of the mitigation measure and the benefits of the parking management plan cannot be quantified, impacts would remain significant and unavoidable.

5.3.13 Tribal Cultural Resources

A cumulatively considerable impact on tribal cultural resources would result if the proposed project's incremental contribution to significant cumulative tribal cultural resource impacts would be considerable.

5.3.13.1 Geographic Scope

The analysis first determines if a cumulative significant tribal cultural resources impact is present and then determines if the project's contribution would be cumulatively considerable. Because impacts on tribal cultural resources are generally site-specific and not additive across a landscape, the geographic scope for the cumulative tribal cultural resources impact analysis includes areas within 0.25-mile of the project site.

5.3.13.2 Cumulative Effects

As discussed in Section 4.13, *Tribal Cultural Resources*, a records search was conducted at the South Coastal Information Center for the project site and a 0.25-mile buffer surrounding the site to determine if tribal cultural resources are present. Additionally, a Sacred Lands File Search of the project area was obtained from the Native American Heritage Commission. Based on the records search and the Sacred Lands File Search, no tribal cultural resources that are listed in or eligible for listing in the California Register of Historical Resources or Sacred Lands File were identified on or close to the project site. Pursuant to Public Resources Code 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 project notification from any local Native American Tribes. Additionally, the District has not received a specific request from a Tribe for notification of the proposed project. No Tribes have contacted the District to request notification of projects under AB 52; therefore, tribal consultation was not conducted, and no tribal cultural resources were identified as the result of an AB 52 consultation process.

Past projects within the geographic scope have resulted in the urban development seen today, which most likely also affected tribal cultural resources that were previously located within the project footprint. Because the past and present projects have drastically changed the cultural setting of the immediate region, cumulative impacts from past, present, and probable future projects are cumulatively significant.

5.3.13.3 Project Contribution

The project site and its immediate surroundings consist of urban land that has been entirely developed with buildings, paving, or park landscape. Therefore, due to the nature of the project site, the absence of recorded tribal cultural resources within or near the project site, and the lack of requested notification by Tribes under AB 52, it is unlikely that significant tribal cultural resources would be encountered during construction of the proposed project. However, any potential tribal cultural resources inadvertently discovered during construction would be evaluated and protected in compliance with AB 52. Therefore, impacts would be less than cumulatively considerable.

5.3.13.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative tribal cultural resources impacts would be less than cumulatively considerable.

5.3.13.5 Mitigation Measures

No mitigation is required.

5.3.13.6 Level of Significance After Mitigation

The proposed project's incremental contribution to cumulative tribal cultural resources impacts would not be cumulatively considerable and would be less than significant.

5.3.14 Utilities and Energy Use

Cumulative impacts on utilities and energy use 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 energy 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 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 impacts that exceeded the planned use and capacity of the wastewater, water, solid waste, and/or energy service providers for the proposed project, 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 energy use includes all of the projects listed in Table 5-2 and all of the growth assumptions provided in regional planning documents such as a UWMP.

5.3.14.2 Cumulative Effects

As discussed in Section 4.14, *Utilities and Energy*, wastewater services within the cumulative geographic scope for utilities and energy are provided by the City of San Diego Public Utilities Department (PUD), which operates 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 operates at 57 percent of permitted capacity (measured in 2015) and is anticipated to meet the projected needs of the service area through at least the year 2020 per the City's General Plan, impacts from past, present, and reasonably foreseeable future projects are not cumulatively significant.

For water services, the City's PUD 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's 2015 UWMP was prepared in coordination with the City'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 covered by planning documents maintained by Civic San Diego, consistent with the growth projections of the Downtown Community Plan, which includes projects in the District'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 Downtown Community Plan or the PMP, the San Diego County Water Authority's 2015 UWMP includes additional water supplies to account for "accelerated forecasted growth."¹ 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 (City of San Diego 2016b). This additional amount set aside for accelerated growth is intended to offset any potential shortages. In addition, the County Water Authority has a diverse water supply portfolio, which includes imported water from the State Water Project and the Colorado River, as well as water from the Carlsbad Desalination Plant. Therefore, impacts on water services from past, present, and reasonably foreseeable future projects are not cumulatively significant.

¹ More information on Accelerated Forecasted Growth is available in the San Diego County Water Authority's 2015 UWMP. Available: http://www.sdcwa.org/sites/default/files/files/water-management/water_resources/2015%20UWMP%20Final%2006222016.pdf

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 utility providers, 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 May 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 an unreliable supply. SANDAG adopted a Regional Energy Strategy (RES) in 2009 to specifically address regional energy supply. The RES establishes goals for the San Diego region to be more energy efficient, increase the use of renewable energy sources, and enhance the region's energy infrastructure to meet the region's growing energy demand. The RES includes proposed priority early actions to promote long-term energy efficiency and availability in the region. If the cumulative projects would not support the implementation of applicable priority early actions from the RES, a cumulative impact on the region's energy supply 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. However, Title 24 does not require additional measures to support the other RES priority 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. Therefore, impacts from past, present and reasonably foreseeable future projects are cumulatively significant.

According to the City of San Diego's CEQA Significance Determination Thresholds (City of San Diego 2016c), projects that include the construction, demolition, or renovation of 40,000 square feet or more of building space that would generate approximately 60 tons of solid waste or more per year are considered to have a significant cumulative impact on solid waste facilities. Many of the cumulative projects listed in Table 5-2 would meet these thresholds, including the Marriott Marquis San Diego Hotel and Marina Facilities Improvements project (cumulative project #1), Ballpark Village Parcel C project (cumulative project #4), Navy Broadway Complex project (cumulative project #6), San Diego Continuing Education – Cesar Chavez Campus (cumulative project #11), Metro Center Project (cumulative project #12), 450 B Office Building project (cumulative project #53), and the Makers Quarter Block D project (cumulative project #66). As such, impacts on solid waste facilities from past, present, and reasonably foreseeable future projects are cumulatively significant.

5.3.14.3 Project Contribution

As described above, impacts from past, present, and reasonably foreseeable future projects on water and wastewater infrastructure and water supply 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 there is available capacity to provide water and wastewater treatment, as well as available water supply due to the diversity of water sources to meet the demand of the proposed project and the project's incorporation of water reduction measures. It should be noted that project-level impacts on wastewater capacity are anticipated to be less than significant because the existing 15-inch trunk sewer main west of the intersection of West

Harbor Drive and Park Boulevard will be upsized to a 30-inch sewer main as part of the Ballpark Village project. However, in the event that upsizing of the existing 15-inch trunk sewer does not occur, there would be insufficient capacity to accommodate project-generated wastewater (**Impact-UTIL-2**). Therefore, to ensure that the upsizing would occur, **MM-UTIL-1** would be implemented at the project level, and would reduce potential project-level impacts to a less-than-significant level. Additionally, although construction of various utility improvements would contribute to significant impacts related to cultural resources, geology and soils, and hazards and hazardous materials (**Impact-UTIL-1**), implementation of project-level mitigation measures (**MM-CUL-1**, **MM-CUL-2**, **MM-GEO-1**, and **MM-HAZ-1** through **MM-HAZ-4**) would reduce **Impact-UTIL-1** to less-than-significant levels.

As discussed in Section 4.14, *Utilities and Energy Use*, operation of the proposed project would generate 1,278 tons of disposable solid waste per year. The City's threshold indicates that projects that include the construction, demolition, and/or renovation of 40,000 square feet or more of building space may generate approximately 60 tons of waste or more per year, and are considered to have cumulative impacts on solid waste facilities. Therefore, the proposed project would exceed the City's cumulative threshold for solid waste and, prior to mitigation, would result in a cumulatively considerable contribution to cumulative solid waste impacts (**Impact-C-UTIL-1**). Therefore, mitigation is required to reduce this impact to a level considered less than cumulatively considerable.

While impacts from past, present, and reasonably foreseeable future projects on energy are cumulatively significant, the proposed project is consistent with the Energy Policy Act and AB 2076 to reduce energy consumption. The proposed project would also achieve at least a LEED Silver rating. Furthermore, as discussed in Section 4.6, *Greenhouse Gas Emissions and Climate Change*, the proposed project would incorporate energy efficiency design features that strive to exceed 2013 Title 24 California Building Energy Efficiency Standards. These design features may include high-performance glazing; increased insulation; cool roof; high-efficiency heating, ventilating, and air condition systems and controls; programmable thermostats; variable frequency drives; and a high-efficiency lighting and control system. By achieving LEED Silver and implementing several energy-saving features, the proposed project would not result in the inefficient, wasteful, or unnecessary consumption of energy. Therefore, the proposed project would support regional efforts to ensure long-term energy supply and would not result in a cumulatively considerable contribution to a cumulative energy impact.

5.3.14.4 Level of Significance Prior to Mitigation

The proposed project's incremental contribution to cumulative impacts related to utilities and energy would be cumulatively considerable prior to mitigation. Potential cumulatively considerable impact(s) include:

Impact-C-UTIL-1: The Proposed Project Would Generate Solid Waste that Would Exceed the City's Threshold. Operation of the proposed project would generate an annual amount of solid waste in excess of 60 tons, which would exceed the City's cumulative solid waste threshold.

5.3.14.5 Mitigation Measures

For **Impact-C-UTIL-1**:

MM-C-UTIL-1: Prepare a Waste Management Plan. Prior to issuance of the construction permits, the project proponent shall prepare a waste management plan and submit the plan to the City's Environmental Services Department for approval. The plan shall address the demolition, construction, and operation phases of the proposed project as applicable, and shall include the following.

1. A timeline for each of the main phases of the proposed plan and near-term improvements (construction and operation).
2. Tons of waste anticipated to be generated (construction and operation).
3. Type of waste to be generated (construction and operation).
4. Description of how the proposed project will reduce the generation of construction and demolition (C&D) debris.
5. Description of how C&D material will be reused on site.
6. The name and location of recycling, reuse, and landfill facilities where recyclables and waste will be taken if not reused on site.
7. Description of how the C&D waste will be separated if a mixed C&D facility is not used for recycling.
8. Description of how the waste reduction and recycling goals will be communicated to subcontractors.
9. Description of how a "buy recycled" program for green construction products will be incorporated into the proposed project.
10. Description of any ISO² or other certification, if any.

5.3.14.6 Level of Significance after Mitigation

Implementation of mitigation measure **MM-C-UTIL-1** would reduce the proposed project's incremental contribution to cumulative solid waste impacts (**Impact-C-UTIL-1**) to less than cumulatively considerable by ensuring that the project limits its solid waste to a minimum and is fully compliant with all solid waste laws. Therefore, the proposed project's incremental contribution to cumulative impacts related to water, wastewater, solid waste, and energy would be less than cumulatively considerable and would be less than significant.

² ISO certification means there has been a commitment to reduce ongoing waste.

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 15126.2(c), (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 3.4.10, *Port Master Plan Amendment*, the proposed project would involve a Port Master Plan Amendment (PMPA) and, therefore, pursuant to State CEQA Guidelines Section 15127, the EIR is required to comply with State CEQA Guidelines Section 15126.2(c). Section 15126.2 (c) requires that the EIR identify any significant irreversible environmental changes resulting from the proposed project.

The project proposes a commercial and recreational bayside redevelopment consisting of approximately 5 acres (approximately 218,875 square feet) along the embarcadero in downtown San Diego. Components of this proposed project include an 850-room market-rate hotel tower; 565-bed lower-cost, visitor-serving hotel; approximately 6,000 square feet of retail development; approximately 85,490 square feet of public plaza and park areas; approximately 263 onsite parking spaces; an expanded marina with up to 50 new slips; an expanded Water Transportation Center; and an optional connecting bridge from the hotel public plaza and park area to the San Diego Convention Center (SDCC).

The demolition of existing landside uses, including parking lots, hardscape, and buildings, is an irreversible change. Other components in the proposed project, such as construction of the market-rate hotel tower, lower-cost, visitor-serving hotel, and marina slips, would all be reversible once any of these components are no longer needed or are outdated long into the future. Implementation of the proposed project would also 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 vessels. 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.

¹ The requirements of State CEQA Guidelines Section 15126.2(a) and (b) are met in Chapter 4, *Environmental Analysis*, under each resource discussion.

The proposed project also proposes a PMPA, which would commit future generations to use of the project site for recreational boating, in addition to the existing commercial and recreational designations. Given the significant public and private investments in facilities and improvements associated with these changes, and the anticipated lifetime of these improvements, these changes would not be likely to be reversed or significantly changed for many years to come. This would change the current site from one that is mixed with paved and landscaped uses to one that would include additional buildings and a larger marina, consistent with the surrounding environment.

In addition, 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, air quality and health risk, greenhouse gas (GHG) emissions, hazards and hazardous materials, noise, and transportation. As discussed in Section 4.1, *Aesthetics and Visual Resources*, visual impacts due to obstructed views within a vista area during project construction would be reduced with implementation of mitigation measures, although the impacts would remain significant and unavoidable. Additionally, the introduction of a high-rise market-rate hotel tower within the viewshed of the vista areas at the SDCC's existing plaza and grand staircase would block or substantially obstruct existing expansive and uninterrupted views of the San Diego Bay, including views of the San Diego-Coronado Bay Bridge. Therefore, this impact would be significant and irreversible.

As discussed in Section 4.2, *Air Quality and Health Risk*, new land use designations are not accounted for in the Regional Air Quality Strategy and State Implementation Plan, and this inconsistency would be significant and unavoidable under the proposed project. In the future, the San Diego Air Pollution Control District will update the growth assumptions in the Regional Air Quality Strategy and State Implementation Plan, and the project would be consistent with the plans; however, for the purposes of this analysis, the impacts would be irreversible.

GHG emissions associated with the project's buildout would be significant in the post-2020 years for landside uses and recreational boating, as discussed in Section 4.6, *Greenhouse Gas Emissions and Climate Change*. Project-related GHG emissions would achieve the Climate Action Plan's efficiency targets for lodging/landside projects for 2030 and 2050 and the post-2020 reduction targets for recreational boating, but because there are no known post-2020 reduction targets and plans to meet the statewide targets, specific reduction targets remain unknown, and these impacts would be significant and irreversible.

As discussed in Section 4.7, *Hazards and Hazardous Materials*, contaminated sediments may be encountered during construction activities within the marina portion of the project site. As such, construction activities that disturb the sediment would potentially result in a release of hazardous materials and create a potentially significant hazard within the environment by exacerbating the existing hazardous conditions. Approval of the methods for in-water construction are within the jurisdiction of the Regional Water Quality Control Board and/or other federal and state agencies, and not the District. The proposed project would be required to implement mitigation measures and to obtain necessary resource agency permits to minimize impacts associated with contaminated sediment. However, in the event there is an accidental release of contaminated sediment during construction that could not be avoided, impacts would be irreversible. Therefore, this impact 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.

Construction activities associated with pile driving activities would remain significant and unavoidable where it is not feasible to implement mitigation measures. However, because construction noise is temporary, it would not be considered an irreversible condition.

Construction worker-related traffic at the following study area intersections during construction activities would remain significant and unavoidable, as discussed in Section 4.12, *Transportation, Circulation, and Parking*: Sampson Street/Harbor Drive and Interstate 5 southbound on-ramp and Boston Avenue. Construction worker-related traffic would also result in significant and unavoidable impacts along the 28th Street roadway segment between National Avenue and Boston Avenue. Additionally, operation-related impacts on study area intersections at 15th Street/F Street, 17th Street/G Street, and 19th Street/J Street would be reduced with implementation of mitigation measures, although the timing and implementation of the improvements are uncertain because they are outside the jurisdiction of the District. Therefore, these impacts would be significant and unavoidable. Operation-related impacts on one study area freeway segment, northbound Interstate 5 between Grape Street and First Avenue, would be significant and unavoidable because improvements to this freeway segment are not scheduled until Year 2050, and there is no fair share fund established at this time. Insufficient parking supply during construction of the project would also be significant and unavoidable. Mitigation would require incentives for transit use and use of offsite parking facilities for construction workers. Even after mitigation, existing parking at the project site would not be accessible throughout the construction phase, and the parking impact would be significant and unavoidable. Parking associated with operation of the project would result in insufficient parking supply. Mitigation cannot be quantified to provide evidence that it would be sufficient to reduce parking demand such that the proposed parking supply would be equal to or greater than the demand. The parking impact would remain significant and unavoidable. Construction-related impacts would be temporary in nature and therefore reversible at project completion; however, operations-related impacts would be irreversible.

Although the project would use non-recoverable materials and energy during construction and operation activities, the amounts needed would be accommodated by existing supplies and infrastructure. Therefore, the project's potential to result in irreversible environmental changes is primarily related to the use of fossil fuels for construction and operation. However, as discussed in Section 4.14, *Utilities and Energy*, impacts on energy would not be significant.

6.3 Growth-Inducing Impacts

State CEQA Guidelines Section 15126.2(d) 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(d)). 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 1,100 total 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 directly add 610 permanent jobs. This compares to a projected number of approximately 1.911 million jobs in the overall area of influence by 2050 (SANDAG 2013).

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 users 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 downtown and greater San Diego 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 of San Diego 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 proposed project would, however, result in the creation of both temporary and permanent employment opportunities to

support the construction and operation of the proposed project. However, although the 610 additional permanent jobs would have a positive impact on the economy, the additional permanent employment created by the proposed project would not increase the 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 prohibited² on District property under the Public Trust Doctrine, nor would it increase the City's population in a manner that would necessitate the construction of additional housing. Though construction of the proposed project would provide for approximately 610 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 and unionized jobs.

6.3.4 Removal of Obstacles to Population Growth

As stated above, 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 and a PMPA, 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 and within the District's jurisdiction in an area that is identified in the PMP for the development of commercial and marine-related uses, which the site currently supports. Existing roadways, water, and wastewater services already serve the project site and surrounding area. While the proposed project would upgrade the existing 10-inch sewer pipeline to a 12-inch main pipeline, 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 proposed project would not remove obstacles to growth.

² There are rare exceptions such as a land swap that occurred within the Chula Vista bayfront that swaps residential development rights on land that currently supports natural coastal habitat for land that is on the tidelands but is already heavily disturbed.

6.3.4.2 Port Master Plan Amendment

The project site is currently designated in the PMP for Commercial Recreation and a 5-acre Park/Plaza as well as the following water use designations: Recreational Boat Berthing, Specialized Berthing, and Ship Navigation Corridor; see Figure 2-3. As part of the proposed project, a PMPA is proposed to change portions of the existing land and water use designations and to update the PMP maps, text, and tables to reflect the proposed improvements. Therefore, with both an increase in the commercial space and the number of hotel rooms over what is currently anticipated in the PMP, it is reasonable to conclude that the PMPA would indirectly result in growth-inducing impacts related to the expansion of visitor-serving uses.

6.3.5 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. In addition, the proposed project would provide new jobs in the San Diego area and may generate a modest demand for move-up housing due to the high-paying jobs that would be created. 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 measureable effect on regional growth.³

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, mineral resources, and population and housing would not be significant. 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 Agriculture and Forestry Resources

6.4.1.1 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 2014). As such, there is no potential for any actions to convert Farmland resources to a nonagricultural use and no impacts would occur.

³ Note that the potentially significant environmental effects of the project are analyzed in Chapters 4 and 5 of this EIR.

6.4.1.2 Williamson Act Contracts or Agricultural Zoning

The project site is not zoned for agricultural use, nor is there a 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.

6.4.1.3 Conflict with Forest Land Zoning

The project site is located 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; therefore, no impact would occur.

6.4.1.4 Conversion of Forest Land to Non-Forest Use

The project sites do 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. Therefore, no impact would occur.

6.4.1.5 Conversion of Farmland to Non-Agricultural Use

No agricultural uses, forest land, or timberland exists in the vicinity of the project site. The project would not result in conversion of important farmland or conversion of other agricultural resources to a non-agricultural use because the project site and the 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.

6.4.2 Mineral Resources

6.4.2.1 Known Mineral Resource

The project site does not contain any known mineral resources. The landside area of the proposed project site is underlain by two surficial soil units overlying the marine terrace deposits (Appendix G-1). No commercial mining operations exist on the project site or in the immediate vicinity. The mineral resource zone (MRZ) designation for the project site is MRZ-1 (CDMG 1996). The MRZ-1 designation is applied to "areas where adequate geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence." Therefore, the proposed project would not result in a loss of known mineral resources.

6.4.2.2 Important Mineral Resource

The proposed project site is underlain by two surficial soil units overlying the marine terrace deposits (Appendix G-1). The PMP does not identify any mineral resources in the area or designated plans for mineral resource extraction. The project site and the surrounding area do not contain locally important mineral resources (CDMG 1996). Therefore, implementation of the project would not result in the loss of availability of a locally important mineral resource recovery site, and no impact would occur.

6.4.3 Population and Housing

6.4.3.1 Population Growth

The proposed project would not construct any homes or businesses or extend roads to expand an urban area into a rural one; however, additional employees and construction workers are anticipated to work at the project site as a result of the construction of the proposed project. Approximately 1,100 jobs (direct, indirect, and induced) would be created during the near-term construction period, and a total of approximately 610 long-term direct and indirect jobs would be created as a result of the proposed project.

Although implementation of the proposed project would require up to 610 new employees and temporarily increase the number of construction workers in the area, the additional jobs are expected to be filled primarily by existing local and regional residents and would not induce substantial population growth. The jobs would not result in the relocation of any significant number of people. Therefore, the proposed project would not directly or indirectly induce substantial population growth in the San Diego region. As such, impacts would be less than significant.

6.4.3.2 Displacement of Housing

The project site is mostly paved and developed with commercial-serving public uses, and no existing onsite housing units or persons are located on the project site. Therefore, implementation of the proposed project would not result in the displacement or loss of residential units and no replacement housing would be necessary. Consequently, the proposed project would not induce a substantial increase in population. No impact would occur.

6.4.3.3 Displacement of People

The project site is currently developed with a temporary parking lot, water transportation office, public restrooms, and public open space including the 35-foot-wide Embarcadero Promenade and does not include residential housing. It would not displace people or require the construction of replacement housing elsewhere. No impact would occur.

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.

Six alternatives to the proposed project are analyzed in this chapter and discussed in terms of their merits relative to the proposed project.

- Alternative 1 – No Project/No Build Alternative
- Alternative 2 – No Project/Port Master Plan Consistency Alternative
- Alternative 3 – No Net New Marina Alternative
- Alternative 4 – Phase I Only Marina Alternative
- Alternative 5 – Reduced Density Alternative
- Alternative 6 – Below Grade Parking Alternative

Based on the analysis below, Alternative 3, the No Net New Marina 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 shall 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 proposed project's objectives. The proposed project includes the following objectives.

1. Provide for the development and operation of a full-service hotel of a size, quality, and location appropriate for first-class convention operations that is a financially viable operation and is of a similar size and stature as nearby hotels such as the Hilton San Diego Bayfront Hotel (approximately 1,200 rooms), Manchester Grand Hyatt Hotel (approximately 1,625 rooms), and Marriott Marquis San Diego Marina Hotel (approximately 1,355 rooms).
2. Provide lower-cost visitor-serving accommodations to allow greater access and enjoyment by the public that complies with Board Policy 775, *Guidelines for the Protection Encouragement, and, where feasible, Provision of Lower Cost Visitor and Recreational Facilities*.
3. Provide for infill development on District tidelands that: (a) is compatible with surrounding uses; (b) maximizes the economic benefit to the District and City of San Diego and surrounding region by maximizing hotel room revenue, restaurant and retail sales, and hotel and retail sales taxes; and (c) generates sufficient leasehold revenue to support the District's participation in financing its mission of developing a balance between economic benefits, environmental stewardship, and public safety on behalf of the citizens of California.
4. Increase activation at the project site and along the bayfront by providing public plaza and park spaces, accompanied by visitor-serving retail, an expanded marina, a new water transportation center, and continuing operation of the existing public in-Bay water transportation system.
5. Provide new public vista opportunities of San Diego Bay from vantage points such as the San Diego Convention Center (SDCC) and proposed public plaza and park areas.
6. Improve public access by providing linkages from the City to the waterfront and Embarcadero Promenade by providing wayfinding signage at multiple entry points, including potential development of a pedestrian bridge that connects the project site with the SDCC and the Gaslamp Quarter of downtown San Diego.
7. Pursue Leadership in Energy and Environmental Design (LEED) Silver certification or achieve an equivalent level of sustainability by incorporating sustainable practices in all elements of project design and construction, leading to a reduction in energy use, water use, and solid waste generation as compared to standard hotel and visitor-serving developments.

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 Resource 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 impacts that would occur under the proposed project. Table 7-1 summarizes the proposed project's significant impacts, which have been identified to assist with focusing the analysis of alternatives in Section 7.5.

Table 7-1. Summary of Significant Effects of the Proposed Project

Resource Impact	Significant and Unavoidable	Less than Significant with Mitigation
Section 4.1, Aesthetics and Visual Resources		
Impact-AES-1: Visual Impacts due to Obstructed Views Within a Vista Area During Project Construction	X	
Impact-AES-2: Visual Impacts due to Obstructed Views Within a Vista Area During Project Operations	X	
Impact AES-3: Visual Impacts due to Displacement of Existing Designated Vista Areas During Project Operations		X
Impact AES-4: Temporary New Source of Nighttime Lighting During Construction		X
Impact AES-5: New Permanent Source of Glare Generated by the Proposed Market-Rate Hotel Tower		X
Section 4.2, Air Quality and Health Risk		
Impact-AQ-1: New Land Use Designations not Accounted for in the RAQS and SIP		X
Impact-AQ-2: Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Construction		X
Impact-AQ-3: Cumulative Emissions in Excess of Criteria Pollutant Thresholds During Proposed Project Construction		X
Section 4.3, Biological Resources		
Impact-BIO-1: Water Quality Impairment Impacts on California Least Tern Foraging		X
Impact-BIO-2: Potential Disruption or Injury of California Least Tern, Green Sea Turtle, and Marine Mammals During Pile Driving Activities		X
Impact-BIO-3: Potential Disturbance or Destruction of Nests Protected by the Migratory Bird Treaty Act and California Fish and Game Code		X
Impact-BIO-4: Reflective Materials and Increased Bird Strikes (associated with market-rate hotel tower, lower-cost visitor-serving hotel, and retail development)		X
Impact-BIO-5: Loss of Open Water Habitat from Marina Operations		X
Impact-BIO-6: Loss of Open Water Function from Structural Fill		X
Impact-BIO-7: Potential Reduction in Eelgrass Habitat and Productivity During Construction		X
Impact-BIO-8: Potential Loss of Eelgrass Habitat Due to Increased Boat Traffic, Marina Operations, and Increased Shade from Hotel Operations		X
Section 4.4, Cultural Resources		
Impact-CUL-1: Excavation Related to the Proposed Project would Potentially Damage Significant Archaeological Resources		X
Impact-CUL-2: Potential to Disturb Buried Paleontological Resources		X
Section 4.5, Geology and Soils		
Impact-GEO-1: Potential to Exacerbate Conditions That Would Result in Liquefaction		X

Resource Impact	Significant and Unavoidable	Less than Significant with Mitigation
Impact-GEO-2: Potential to Exacerbate Conditions That Would Result in Lateral Spreading or Soil Collapse		X
Section 4.6, Greenhouse Gas Emissions and Climate Change		
Impact-GHG-1: Inconsistency with District Climate Action Plan and Only Partial Consistency with Applicable GHG Reduction Plans, Policies, and Regulatory Programs through 2021		X
Impact-GHG-2: GHG Emissions in Excess of Post-2020 Targets for Landside Uses and Recreational Boating.	X	
Section 4.7, Hazards and Hazardous Materials		
Impact-HAZ-1: Landside Soil Contamination		X
Impact-HAZ-2: Waterside Sediment Contamination and Damage to the Cap	X	
Impact-HAZ-3: Exacerbate an Existing Safety Hazard for People Residing or Working within the Vicinity of the Project Site		X
Section 4.8, Hydrology and Water Quality		
Impact-HWQ-1: Potential to Violate Water Quality Standards or Waste Discharge Requirements for the Waterside Improvements		X
Impact-HWQ-2: Potential to Provide Substantial Additional Sources of Polluted Runoff for the Waterside Improvements		X
Section 4.9, Land Use and Planning		
Impact LU-1: Potential Inconsistency with the PMP Due to Displacement of Five Designated Vista Areas		X
Impact-LU-2: Potential For Insufficient Wayfinding and Accessibility Signage to Inform Public that Public Plaza and Park Areas Are Available for Public Use and Enjoyment Related to Impact-PS-3		X
Impact-LU-3: Potential Inconsistency with the California Coastal Act's Requirement to Minimize Coastal Hazards through Planning and Development, Resulting in a Physical Impact on the Environment		X
Impact-LU-4: Potential Inconsistency with the ALUCP		X
Section 4.10, Noise and Vibration		
Impact-NOI-1: Exceedance of an Adopted Noise Standard During Project Construction	X	
Impact-NOI-2: Potential Exceedance of an Adopted Noise Standard Due to Onsite Operational Noise from Mechanical Equipment		X
Impact-NOI-3: Potential Exceedance of an Adopted Noise Standard Due to Outdoor Special Events		X
Impact-NOI-4: Potentially Substantial Increase in Ambient Noise Levels Due to Onsite Operational Noise from Mechanical Equipment		X
Impact-NOI-5: Potentially Substantial Increase in Ambient Noise Levels Due to Outdoor Special Events	X	
Impact-NOI-6: Significant Temporary Increase in Ambient Noise Levels During Project Construction	X	

Resource Impact	Significant and Unavoidable	Less than Significant with Mitigation
Section 4.11, Public Services and Recreation		
Impact-PS-1: Construction of the Rooftop Public Plaza and Park Areas Would Contribute to Significant Impacts Related to Impact-AES-1, Impact-AES-4, Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, Impact-HAZ-1, Impact-HAZ-3, Impact-NOI-1, Impact-NOI-6, Impact-TRA-1, Impact-TRA-2, and Impact-TRA-6	X	
Impact-PS-2: Operation of the Rooftop Public Plaza and Park Areas Would Contribute to Significant Impacts Related to Impact-AES-2, Impact-AES-3, Impact-NOI-3, Impact-NOI-5, Impact-TRA-3, Impact-TRA-4, and Impact-TRA-7	X	
Impact-PS-3: Potential for Insufficient Wayfinding and Accessibility Signage to Inform Public that Public Plaza and Park Areas Are Available for Public Use and Enjoyment		X
Impact-PS-4: Limited Public Access to the Marina		X
Section 4.12, Transportation, Circulation, and Parking		
Impact-TRA-1: Construction-Related Impacts along the 28 th Street Roadway Segment Between National Avenue and Boston Avenue Under Existing Plus Project Construction	X	
Impact-TRA-2: Construction-Related Impacts on Study Area Intersections Under Existing Plus Project Construction: Sampson Street/Harbor Drive (AM and PM Peak Hours) and I-5 SB On-Ramp/Boston Avenue (PM Peak Hour)	X	
Impact-TRA-3: Operation-Related Impacts on Study Area Intersections Under Existing Plus Project Conditions: 15 th Street/F Street (PM peak hour); 17 th Street/G Street (PM peak hour); 19 th Street/J Street (PM peak hour)	X	
Impact-TRA-4: Operation-Related Impacts Under Existing Plus Project Conditions: NB I-5 Between Grape Street and First Avenue (AM Peak Hour)	X	
Impact-TRA-5: Temporary Closure of Embarcadero Promenade During Construction		X
Impact-TRA-6: Insufficient Parking Supply During Construction	X	
Impact-TRA-7: Insufficient Parking Supply During Operation	X	
Section 4.13, Tribal Cultural Resources		
N/A	N/A	N/A
Section 4.14, Utilities and Energy Use		
Impact-UTIL-1: Construction of Utility Improvements Would Contribute to Impact-CUL-1, Impact-CUL-2, Impact-GEO-1, Impact-GEO-2, and Impact-HAZ-1		X
Impact-UTIL-2: Insufficient Sewer Capacity to Convey Project-Generated Wastewater		X

7.4 Alternatives Considered

A total of 10 alternatives were initially considered for evaluation. Based on the criteria described in Section 7.3, *Selection of Alternatives*, in addition to evaluating two No Project Alternative scenarios, four other alternatives were carried forward. The other alternatives that were considered, but rejected, included an alternate location alternative, a lower-cost visitor-serving hotel only alternative, a hotel tower only alternative, and an SDCC expansion and hotel tower alternative. Alternatives that were carried forward and analyzed below provide variations to adjust various components of the project that would help reduce environmental impacts. Table 7-2 summarizes the buildout scenarios for the six alternatives that were carried forward.

Table 7-2. Summary of Alternative Buildout Scenarios

Alternative	Project Components			
	Hotel Tower	Lower-Cost Visitor-Serving Hotel	Marina Expansion	Other Components (e.g., retail, parking, ballroom, public parks and plaza)
Alternative 1 – No Project/No Buildout Alternative	No	No	No	No
Alternative 2 – No Project/Port Master Plan Consistency¹	No	No	No	Expansion of SDCC to include 220,150 square feet of exhibit hall space, 101,500 square feet of meeting rooms, and 78,470 square feet of ballroom space; includes a 5-acre rooftop park/plaza
Alternative 3 – No Net New Marina Alternative	850 rooms	565 beds	No	Same as proposed project
Alternative 4 – Phase I Only Marina Alternative	850 rooms	565 beds	Phase I Only Marina Expansion (23 slips)	Same as proposed project
Alternative 5 – Reduced Density Alternative	680 rooms	452 beds	Phases I and II Marina Expansion (50 slips)	Same as proposed project
Alternative 6 – Below Grade Parking Alternative	850 rooms	565 beds	Phase I and II Marina Expansion (50 slips)	All parking demand is met on site; all other components same as proposed project

¹ The Hilton Bayfront Hotel Tower was approved in the same Port Master Plan Amendment as the SDCC Phase III Expansion, but is located on another site and would not be affected by the proposed project.

7.5 Alternatives Considered but Rejected

7.5.1.1 Alternate Location Alternative

Besides the proposed project site, some possible locations suitable for the proposed project that have visitor-serving commercial designations include portions of Harbor Island, North or Central

Embarcadero, and Chula Vista Bayfront. However, waterfront property in the District's jurisdiction is limited because of pending project proposals; tenants with existing *lease agreements*, exclusive negotiating agreements, or option agreements with other developers for waterfront sites; or the size or physical constraints of the sites would not allow development of the proposed project at the alternative location. Importantly, the project proponent does 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 with a market-rate hotel tower, a lower-cost visitor-serving hotel, and marina expansion. Therefore, there is a lack of available locations within the District's jurisdiction for the proposed project.

A key consideration for the project, as proposed, is being located adjacent to the SDCC, a major draw for out-of-town guests looking for market-rate and lower-cost visitor-serving hotel accommodations. In addition, the proposed project would be located in an area that has a similar visual and community character with tall hotel towers and would be within walking distance of visitor-serving commercial and recreational uses in the downtown districts of Gaslamp, East Village, and others.

An alternative site at one of the locations mentioned above would not likely reduce any of the proposed project's significant impacts and, in certain cases, could worsen one or more impacts. For example, two hotels farther away from the SDCC would likely result in an increase in vehicle miles traveled (VMT), as hotel guests would need to travel farther to get to the SDCC. Consequently, the greater VMT would correspondingly result in greater air quality and greenhouse gas (GHG) emissions, and potentially more traffic on the downtown roadways. In contrast, SDCC delegates staying at either of the proposed lodging facilities at the project site would only need to walk across Convention Way (or, if built, across the pedestrian bridge proposed to connect the SDCC and the proposed rooftop plaza and park area). The proximity to the SDCC would also likely lead to a reduced need for parking at and around the SDCC, as guests at the proposed market-rate hotel would be able to leave their cars (if applicable) at the hotel rather than needing to park a car as a result of driving to the SDCC from a hotel (this is most applicable for any alternative sites that would be located outside of the downtown area).

In addition, there are no sensitive receptors (e.g., residential), besides hotels and parks, adjacent to the proposed project site; therefore, any construction-related effects, such as air and noise emissions, would be similar (or possibly worse if additional sensitive receptors were nearby) at another location.

As such, it is anticipated that any alternative location would experience similar or greater impacts associated with air quality and health risks, GHG emissions and climate change, noise and vibration, and transportation, circulation, and parking. Other impacts associated with the proposed project that are specific to the existing conditions of the project site include aesthetics and visual resources, cultural resources, geology and soils, hazards and hazardous materials, and utilities and energy. However, cultural resources, geology and soils, hazards and hazardous materials, and upgrades to the existing utilities and energy infrastructure are issues that are present whether the project is built on the site or not. For instance, under the No Project Alternative, the SDCC Expansion project would result in similar impacts (see the analysis of Alternative 2 below). In addition, any other future development project that takes place at the project site (if not the No Project Alternative) would encounter the same environmental constraints. Therefore, it is not likely that developing the proposed project on an alternative location would avoid or substantially lessen the significant effects on the environment because of the likelihood that a future, unrelated project would be

developed at the proposed location. Therefore, an Alternative Site Alternative would not result in reduced impacts on the environment when compared with the proposed project being developed at the proposed location.

Aside from the landside development proposed, the proposed project includes an expansion of the existing marina. Development of a marina requires waterfront along the Bay. The location for the marina is preferred because marina facilities are already present and there is sufficient room to expand the existing facilities. Moreover, the marina expansion would be made more viable by the increased activation along the bayfront by the proposed landside improvements, including the proposed higher-quality public plaza and park space than the current parking surface parking lot. However, development of the marina expansion (or any in-water work in the proposed location) would potentially result in significant hazards and hazardous materials impacts. Therefore, to avoid any waterside hazardous materials impacts, no in-water work would be allowed in this location, which would effectively serve as a prohibition of any development in this area. Moreover, because there is already a marina in this location, moving the proposed marina to another location would likely require a new marina to be constructed because any existing marinas are under different tenant leases and, in some cases, are considering modifications themselves. Consequently, no suitable alternative locations for the marina expansion are known.

Finally, the proposed project site has the nearby infrastructure necessary to support the market-rate hotel tower and lower-cost visitor-serving hotel. There is a possibility that another location would not have the availability of infrastructure to serve the proposed project.

Therefore, because (1) it is unlikely that developing the proposed project at other waterfront location within the District's jurisdiction would reduce a significant impact and not result in similar or more severe impacts, (2) the tenant does not have leasing rights to any other sites, (3) the proposed project site is surrounded by similar land uses to the proposed project and adjacent to major attractions such as the SDCC, and (4) the project site already has existing marina facilities and room for a marina expansion, no suitable alternative sites were identified and an Alternate Site Alternative was rejected from consideration.

7.5.1.2 Lower-Cost Visitor-Serving Hotel Only Alternative

The Lower-Cost Visitor-Serving Hotel Only Alternative was rejected as infeasible because this alternative would not meet the basic project objectives. Although the lower-cost visitor-serving hotel would be built under this alternative, all other project components, including the hotel tower, retail along the Embarcadero Promenade, public plaza and park areas, ballroom, parking structures, and marina expansion, would not occur under this alternative. This alternative would not create new public vista opportunities. Under this alternative, the project site would retain the 35-foot Embarcadero Promenade, some of the parking lots, and the Fifth Avenue Landing superyacht marina. The marina would not be expanded, and the existing 12 boat slips would remain. The water transportation center (WTC) would not be relocated and upgraded under this alternative. The visual character of the site would essentially remain as is and would result in a substantially reduced impact on aesthetics and visual resources when compared to the proposed project.

With the development of the lower-cost visitor-serving hotel only, this alternative would result in substantially reduced impacts on air quality, biological resources, cultural resources, geology and soils, GHG, noise and vibration, and transportation. This alternative would result in slightly reduced impacts on hazards and hazardous materials, hydrology and water quality, land use and planning,

public services and recreation, tribal cultural resources, and utilities. However, as this alternative would not meet several basic project objectives, the Lower-Cost Visitor-Serving Hotel Only Alternative was rejected from consideration.

7.5.1.3 Hotel Tower Only Alternative

The Hotel Tower Only Alternative was rejected as infeasible because this alternative would not meet the majority of the project objectives. Although the hotel tower would be built under this alternative, all other project components including the lower-cost visitor-serving hotel, retail along the Embarcadero Promenade, public plaza and park areas, ballroom, parking structures, and marina expansion would not occur under this alternative. This alternative would not create new public vista opportunities, and the development of a high-rise hotel tower within the viewshed of vista areas at the SDCC's existing plaza and grand staircase would block or substantially obstruct existing expansive and uninterrupted views of the San Diego Bay, including views of the San Diego–Coronado Bay Bridge. Under the Hotel Tower Only Alternative, impacts associated with air quality; cultural resources; GHG; noise and vibration; and transportation, circulation, and parking would not be substantially reduced or avoided. Impacts on biological resources, hazards and hazardous materials, and hydrology/water quality associated with waterside improvements would be substantially reduced. However, this alternative would not fully meet the majority of the objectives of the proposed project, including project objectives #2, #4, #5, and #6. Therefore, the Hotel Tower Only Alternative was rejected from consideration.

7.5.1.4 SDCC Expansion and Market-Rate Hotel Tower Alternative

In response to the Notice of Preparation for the proposed project, the District received a letter from the San Diego Convention Center Corporation (Corporation) indicating that the Corporation would like the District to consider an SDCC Expansion and Market-Rate Hotel Tower Alternative that would include expansion of the SDCC south of the existing Phase II portion of the SDCC. Specifically, SDCC recommended a contiguous convention center expansion with a hotel built above it without identifying the number of rooms for the hotel. This alternative is also assumed to include other proposed project components such as the lower-cost visitor-serving hotel and marina expansion. Because it is assumed that this alternative would be at a similar scale or most likely larger than the proposed project, it is anticipated that this alternative would not reduce any of the proposed project's significant and unavoidable impacts, including those related to aesthetics and visual resources; GHG emissions; hazardous materials; noise and vibration; and transportation, circulation, and parking. Under this alternative, impacts related to transportation, circulation, and parking; air quality; noise; and GHG emissions could actually increase because these uses would most likely increase the amount of traffic traveling to and from the project site. Moreover, one of the primary reasons the SDCC Expansion project was approved was due to a 5-acre rooftop park, which was included to help offset the loss of ground-level park space. The proposed project's park and plazas would also likely be infeasible due to the limited size of the project site. With a joint SDCC and Market-Rate Tower Alternative, it is uncertain if the design would be able to maintain the rooftop park space of the SDCC Expansion or as proposed by the project, as the tower would be located there. Therefore, this alternative would either have greater impacts compared to the proposed project. In addition, the project proponent, FAL, is the sole entity that currently holds leasing rights to the project site and this alternative would require an agreement between multiple parties, such as the City of San Diego and SDCC, in order to implement. Therefore, this alternative was rejected because (1) it is not likely to reduce a significant impact pursuant to CEQA, (2) it is uncertain if

sufficient park space could be provided with the reduction of the rooftop park proposed as part of the SDCC Expansion approved by the Port Board and the Coastal Commission, and (3) only FAL has leasing rights to the site and would need to agree to any changes to its current leasing agreement that would be up to FAL's sole discretion. However, the rejection of this alternative from further consideration in the EIR does not preclude future consideration of an SDCC Expansion/Hotel Tower project by the Board.

7.5.2 Alternatives Selected for Analysis

7.5.2.1 Alternatives 1 and 2 – No Project Alternatives

The No Project Alternative is required by CEQA to discuss and analyze potential impacts that would occur if the proposed project was not implemented. There are two No Project alternatives analyzed in this section:

- **Alternative 1 – No Project/No Build Alternative.** The site would operate as it currently does until the expiration of the current ARC Lease. The proposed project would not occur and the existing site would retain a 35-foot Embarcadero Promenade, parking lots used for parking and staging for special events associated with SDCC, Fifth Avenue Landing superyacht marina, and open grass area used as a public park. The marina would not be expanded and the existing 12 boat slips would remain. The WTC would not be relocated and upgraded under this alternative. No hotel tower, lower-cost visitor-serving hotel, retail along the Embarcadero Promenade, parking structure, ballroom, additional public parks or plazas, and marina expansion would occur.
- **Alternative 2 – No Project/Port Master Plan Consistency Alternative.** The SDCC Phase III Expansion and Expansion Hotel would be constructed as entitled in the current Port Master Plan (PMP). The proposed Expansion Hotel would occur outside of the proposed project area and, therefore, the focus of this alternative is the portion of the SDCC Phase III Expansion that would occur within the project site. This analysis assumes that the City of San Diego either obtains property rights to the site or constructs the expansion after the expiration of the ARC Lease term. Under the current PMP, the SDCC Phase III Expansion includes the expansion of the existing Convention Center that would add approximately 220,150 square feet of exhibit hall space, approximately 101,500 square feet of meeting rooms, and approximately 78,470 square feet of ballroom space to the existing facility. Public amenities include a 5-acre rooftop park/plaza. It would be accessible to the public with lighted paths, seating areas, an open lawn/performance area, and several observation vistas. Spaces on the rooftop park/plaza would range from grand areas where events can take place to more intimate, contemplative areas. This alternative would not involve any in-water work.

7.5.2.2 Alternative 3 – No Net New Marina Alternative

Under Alternative 3, the proposed project would occur as proposed with the development of the hotel tower, lower-cost visitor-serving hotel, retail along the Embarcadero Promenade, parking structure, ballroom, and public parks and plazas; however, the marina would not be expanded. The marina would continue its current operation of the existing 12 boat slips. Alternative 3 would include the proposed landside marina improvements of relocating the existing marina office to the promenade level of the lower-cost, visitor-serving hotel. Under Alternative 3, the existing Fifth Avenue Landing ferry and taxi service would continue operation at the project site. The No Net New

Marina Alternative is intended to avoid or substantially lessen the proposed project-related significant impacts on biological resources related to loss of eelgrass and open water habitat and hazards and hazardous materials related to waterside sediment contamination and damage to the engineered cap.

7.5.2.3 Alternative 4 – Phase I Only Marina Alternative

Under Alternative 4, the proposed project would occur as proposed but the marina expansion would only include Phase I. Phase II of the marina expansion, which would add 27 slips to the marina, would be eliminated. The Phase I waterside component would add 23 new marina slips ranging in size from 50 feet to 200 feet and would be constructed concurrently with the proposed hotels. Phase I would include the proposed pile-supported dock, which would be approximately 20 feet in width and extend approximately 439 feet. A breakwater with wave attenuation panels may be included as part of Alternative 4 to reduce wave energy coming into the marina. The breakwater, located at the end of the proposed dock, would be approximately 400 linear feet and 20 feet in width. The water transportation office would be relocated and upgraded under this alternative and the Fifth Avenue Landing ferry and water taxi service would continue its operation at the project site. The Phase I Only Marina Alternative is intended to substantially lessen the proposed project-related significant impacts on biological resources related to loss of eelgrass and open water habitat and hazards and hazardous materials related to waterside sediment contamination and damage to the engineered cap.

7.5.2.4 Alternative 5 – Reduced Density Alternative

Under the Reduced Density Alternative, the hotel tower would be reduced by 20%, from 850 rooms to 680 rooms, and the lower-cost, visitor-serving hotel would be reduced by 20%, from 565 beds to 452 beds. The height of the hotel tower would be reduced from 498 feet (45 stories) to 428 feet (38 stories). With the reduction in hotel rooms, the number of required onsite parking spaces would be reduced by approximately 93 spaces. All other project components of the proposed project including the retail along the Embarcadero Promenade, public plaza and park areas, ballroom, parking structure, and marina expansion would remain the same as the proposed project under Alternative 5. The Reduced Density Alternative is intended to avoid or substantially lessen proposed project-related significant impacts related to circulation and parking by reducing the number of hotel guests that would use the site. In addition, Alternative 5 would result in a 20% reduction in air quality emissions, GHG emissions, and energy consumption.

7.5.2.5 Alternative 6 – Below Grade Parking Alternative

Under the Below Grade Parking Alternative, 478 parking spaces would be provided in a concrete parking structure, which would include a subterranean parking level approximately 12 feet below grade. The parking structure would span from the lower-cost visitor-serving hotel to the first major storm water discharge outfall. The below grade parking structure would provide a total of 478 parking spaces. The P1 level would include 190 standard stall spaces, 9 Americans with Disabilities Act (ADA) spaces, and 64 valet spaces. The P2 level would include 167 standard spaces and 48 valet spaces. Valet parking would be provided between the drive aisles on both the P1 and P2 levels. Public parking would be provided on both the P1 and P2 levels. The entrance to the parking structure would be located on Convention Way and public parking signage would be provided along Convention Way. Electrical car charging stations would also be incorporated into the parking structure. All other project components proposed under the proposed project would be

implemented under Alternative 6, including the development of the market rate hotel tower, lower-cost visitor-serving hotel, retail along the Embarcadero Promenade, ballroom, public plaza and park areas, and expansion of the marina. The Below Grade Parking Alternative is intended to avoid or substantially lessen the significant parking impacts of the proposed project.

7.6 Analysis of Alternatives

This section discusses each of the project alternatives and determines whether each alternative would avoid or substantially reduce any 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 proposed project and considers the alternatives' respective relationships to the proposed project's basic objectives. A summary comparison of the impacts of the proposed project and the alternatives under consideration is included as Table 7-10 at the end of this chapter. A summary comparison of the relationship of the project objectives for the proposed project and the alternatives is included as Table 7-11 at the end of this chapter.

7.6.1 Analysis of Alternative 1 – No Project/No Build Alternative

7.6.1.1 Aesthetics and Visual Resources

The existing visual character on the landside portion of the site is defined by parking lots, a small grassy park, the 35-foot-wide Embarcadero Promenade, a small public restroom, a portable trailer building, and a WTC/ticket booth. The waterside portion of the project site comprises a marina that contains 12 slips for large vessels (i.e., superyachts) as well as a water transportation ferry service and occasional water taxi service. The remainder of the waterside portion of the site contains open water. The PMP identifies several designated vista areas at and in the vicinity of the project site. Under Alternative 1, the existing site would remain as is. Therefore, Alternative 1 would avoid impacts on aesthetics and visual resources; consequently, impacts would be substantially reduced when compared to the proposed project.

7.6.1.2 Air Quality and Health Risk

Alternative 1 would not include any construction activities that would result in additional air pollutant emissions. Under the No Project/No Build Alternative, no changes to land uses would occur under the Regional Air Quality Strategies (RAQS) and State Implementation Plan (SIP). Therefore, air quality and health risk impacts under Alternative 1 would be substantially reduced compared to the proposed project.

7.6.1.3 Biological Resources

Under Alternative 1, no pile driving or construction activities associated with the proposed project would occur that would disturb or destroy protected nests or disrupt or injure green sea turtles and marine mammals. Under this alternative, the hotel tower would not be constructed and the use of reflective materials would not increase bird strikes. Under Alternative 1, the marina would not be expanded and the loss of open water habitat and function and the reduction in eelgrass habitat

would not occur. Therefore, biological resource impacts under Alternative 1 would be substantially reduced compared to the proposed project.

7.6.1.4 Cultural Resources

Alternative 1 would not demolish or otherwise alter any of the existing buildings on the project site and, therefore, would not affect any potentially historic resources. However, the historic evaluation conducted for the proposed project did not identify any historic resources on or adjacent to the project site that would be affected by the proposed project and, as such, determined that the proposed project would not result in impacts on any historic resources. Therefore, Alternative 1 would result in similar impacts related to historic resources as the proposed project. However, Alternative 1 would not result in any ground-disturbing activities and would not disturb potential prehistoric archaeological resources, human remains, or paleontological resources that may exist on the project site. Although the proposed project would mitigate any potential impacts on prehistoric archaeological resources, human remains, 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 substantially reduced compared to the proposed project.

7.6.1.5 Geology and Soils

Under Alternative 1, no soil disturbance activities such as grading and excavation would occur that would exacerbate conditions resulting in liquefaction, lateral spreading, or soil collapse. Therefore, geology and soils impacts under Alternative 1 would be substantially reduced compared to the proposed project.

7.6.1.6 Greenhouse Gas Emissions and Climate Change

Alternative 1 would not include any construction and operational activities that would result in additional GHG emissions and GHG emissions would be the same as under existing conditions. Alternative 1 would be consistent with the District's Climate Action Plan (CAP) but would not include any specific GHG reduction measures (i.e., 42% reduction for recreational boating). 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.

7.6.1.7 Hazards and Hazardous Materials

Under Alternative 1, there would be no ground-disturbing activities associated with landside redevelopment or waterside installation of piles associated with the marina 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. Therefore, Alternative 1 would avoid hazards and hazardous materials impacts; consequently, impacts would be substantially reduced when compared to the proposed project.

7.6.1.8 Hydrology and Water Quality

Under Alternative 1, no landside or waterside changes would occur at the existing project site over existing conditions. No construction activities would occur under Alternative 1 that could violate

water quality standards or waste discharge requirements. Additionally, the waterside improvements would not have the potential to provide substantial additional sources of polluted runoff. Therefore, Alternative 1 would avoid hydrology and water quality impacts; consequently, impacts would be substantially reduced when compared to the proposed project.

Furthermore, Alternative 1 would not involve any changes to the project site that would place additional structures on the project site within a 100-year flood hazard area that would exacerbate flood hazards and, similar to the proposed project, impacts related to flood hazards would be less than significant.

7.6.1.9 Land Use and Planning

Alternative 1 would not result in any significant impacts on land use and planning when compared with the proposed project. The five vista areas currently designated in the PMP at the project site would remain. Alternative 1 is consistent with the California Coastal Commission sea-level rise guidelines. Alternative 1 would avoid land use and planning impacts; therefore, impacts would be substantially reduced when compared to the proposed project.

7.6.1.10 Noise and Vibration

Alternative 1 would not result in any significant impacts on noise and vibration and would result in reduced noise impacts when compared with the proposed project. The significant and unavoidable impacts related to construction noise would not occur under Alternative 1. Furthermore, the impacts related to operational noise resulting from mechanical equipment would not occur under Alternative 1. Significant and unavoidable potentially substantial and temporary increases in ambient noise levels associated with outdoor special events would not occur under Alternative 1. Therefore, Alternative 1 would avoid impacts related to noise; consequently, impacts would be substantially reduced when compared with the proposed project.

7.6.1.11 Public Services and Recreation

Under Alternative 1, no significant and unavoidable impacts associated with construction and operation of the public access plaza space would occur. Under Alternative 1, there would be limited access to the marina because a low-cost or no-cost slip would not occur. Therefore, Alternative 1 would result in substantially reduced impacts related to public services and recreation when compared with the proposed project.

7.6.1.12 Transportation, Circulation, and Parking

Alternative 1 would not construct additional landside or waterside uses on the project site and, therefore, would not generate any additional traffic, circulation, or parking. Alternative 1 would not result in any significant construction-related and operation-related impacts on study area roadway segments, intersections, or freeway segments when compared with the proposed project. The significant and unavoidable impacts related to insufficient parking supply during construction and operation of the proposed project would not occur under Alternative 1. Therefore, under Alternative 1, transportation, circulation, and parking impacts would be substantially reduced compared to the proposed project.

7.6.1.13 Tribal Cultural Resources

Under Alternative 1, no impacts on tribal cultural resources would occur because tribal cultural resources have not been identified on the project site. Therefore, impacts on tribal cultural resources under Alternative 1 would be similar to those of the proposed project.

7.6.1.14 Utilities and Energy Use

Alternative 1's demand for water, generation of wastewater, and generation of solid waste would remain the same as existing conditions. Energy use and energy demand would also remain the same compared to existing conditions. Overall, Alternative 1's impact on utilities and energy would be substantially reduced compared to the proposed project.

7.6.1.15 Relationship to Project Objectives and Summary of Impacts

The No-Project/No Build Alternative would avoid or substantially reduce impacts related to aesthetics and visual resources; air quality and health risks; biological resources; geology and soils; GHG emissions and climate change; hazards and hazardous materials; noise and vibration; public services and recreation; and traffic, circulation, and parking. However, the No-Project/No Build Alternative would not meet any of the project objectives (#1, #2, #3, #4, #5, #6, or #7), which aim to develop a full-service hotel, provide a lower-cost, visitor-serving hotel, provide infill development on District tidelands, increase activation along the bayfront by providing new visitor-serving retail uses, new public access space, and expansion of the marina, and incorporate sustainable practices. This alternative would not encourage new public vista opportunities or improved access to the waterfront and Embarcadero Promenade.

7.6.2 Analysis of Alternative 2 – No Project/Port Master Plan Consistency Alternative (SDCC Phase III Expansion)

7.6.2.1 Aesthetics and Visual Resources

Development occurring under Alternative 2 would result in a substantially lower structure than what would occur under the proposed project and would involve implementation of an elevated 5-acre public park/plaza that would include the introduction of five new public vista areas to the project site. Therefore, development of the SDCC Phase III Expansion would not result in impacts on designated vista areas and scenic resources. As such, impacts on aesthetics and visual quality under Alternative 2 would be less than significant. Under the No Project/Port Master Plan Consistency Alternative, impacts on aesthetics and visual resources would be substantially reduced compared to the proposed project.

7.5.2.2 Air Quality and Health Risk

Air quality impacts associated with development of the SDCC Phase III Expansion would occur as a result of projected construction and operational emissions that would exceed San Diego Air Pollution Control District thresholds. The expansion of the existing SDCC is included in the PMP and would avoid air quality impacts of the proposed project associated with inconsistency with RAQS and SIP growth projections. In addition, similar to the proposed project, operational air quality impacts would be less than significant. Construction emissions under this alternative would likely exceed the thresholds for reactive organic gases and nitrogen oxide (NO_x) and impacts due to

construction would be similar to the proposed project. Overall, Alternative 2 air quality and health risk impacts would be slightly reduced compared to those of the proposed project.

7.6.2.2 Biological Resources

Alternative 2 would require removal of all trees at the project site, which has the potential to disturb Migratory Bird Treaty Act (MBTA)-protected nests. This alternative would result in reduced impacts compared to the proposed project related to a potential increase in bird strikes. While this alternative would introduce reflective materials, the structure would be substantially lower than the proposed hotel tower (approximately 4 stories as opposed to 45), and would include buttressing similar to the existing SDCC such that the total amount of area of reflective surfaces used would be significantly less than the proposed project. Alternative 2 could result in indirect impacts on eelgrass by interrupting sun exposure due to the use of a barge during construction activities to provide an additional laydown area for construction materials. However, mitigation to place the barge outside of the eelgrass area has been incorporated and the impact would be less than significant. Under Alternative 2, the marina would not be expanded and would result in less boating activity in the project vicinity, which would reduce impacts on biological resources related to boat traffic. In addition, Alternative 2 would not expand the pier and increase the number of piles in the water, which would result in reduced impacts on biological resources, including injury of green sea turtles and marine mammals, loss of open water habitat and function, and reduction in eelgrass habitat. Overall, Alternative 2 would result in slightly reduced impacts on biological resources compared to the proposed project.

7.6.2.3 Cultural Resources

The potential exists for archaeological and paleontological resources to be located beneath the project site and mitigation measures would require monitoring of construction activities to avoid significant impacts on archaeological and paleontological resources. The SDCC Phase III Expansion would occur on the same site as the proposed project and construction activities would occur within the same general location when compared to the proposed project. As such, Alternative 2 would be required to adopt mitigation measures to avoid potential impacts related to the discovery of cultural and paleontological resources. Therefore, impacts on cultural resources under Alternative 2 would result in similar impacts on cultural resources as the proposed project.

7.6.2.4 Geology and Soils

Similar to the proposed project, the SDCC Phase III Expansion would require extensive ground-disturbing activities on the project site. During construction of the SDCC Phase III Expansion, people or structures may be exposed to substantial risk of injury or damage from seismic ground shaking, liquefaction, or seismically induced ground failure. During construction, temporary aspects of the project may not be able to withstand intense ground shaking. Strong ground shaking and seismic-related ground failure would potentially cause damage to unfinished structures, which could expose construction workers to harm. These activities have the same potential to exacerbate liquefaction and lateral spreading as would occur under the proposed project. Therefore, Alternative 2 would result in similar impacts related to geology and soils as the proposed project.

7.6.2.5 Greenhouse Gas Emissions and Climate Change

Under Alternative 2, the SDCC Phase III Expansion would exceed the District's 1,100 metric tons of carbon dioxide equivalent (MTCO_{2e}) per year threshold, which would hinder the ability to meet Assembly Bill (AB) 32 GHG reduction goals and result in a significant impact. Emissions of MTCO_{2e} would continue to exceed the District's threshold under Alternative 2 and would result in a significant and unavoidable impact. Emissions would conflict with the reduction goals of AB 32 during construction and operations. However, because Alternative 2 would not result in additional boat slips at the project site, the recreational boating activities that have the potential to generate significant GHG emissions would be significantly reduced. Therefore, Alternative 2 would result in substantially reduced GHG impacts compared to the proposed project.

7.6.2.6 Hazards and Hazardous Materials

Ground-disturbing activities associated with construction of the SDCC Phase III Expansion have the potential to encounter possible burn ash material in the soil and groundwater contamination on the site. Under Alternative 2, no waterside construction activities would occur at the project site, and this alternative would not result in disturbance to contaminated sediment and damage to the cap that was put in place to protect the Bay from contaminated sediment. Therefore, Alternative 2 would result in slightly reduced impacts related to hazards and hazardous materials compared to the proposed project.

7.6.2.7 Hydrology and Water Quality

No hydrology and water quality impacts were identified for SDCC Phase III Expansion. Alternative 2 does not include the marina expansion and would reduce the potential for polluted runoff to enter the Bay as well as reduce the potential for violations to water quality standards and waste discharge requirements. Hydrology and water quality impacts under Alternative 2 would be slightly reduced compared to the proposed project.

7.6.2.8 Land Use and Planning

Alternative 2 would result in the SDCC Phase III Expansion improvements and would not avoid or reduce a significant land use, water use, or coastal access impact associated with the proposed project. Alternative 2 would be consistent with the PMP land use designations and would not require a PMP Amendment to redesignate existing Commercial Recreation, Park/Plaza, and Promenade designations within the project site to allow for the SDCC Phase III Expansion improvements because the existing PMP includes uses. Alternative 2 would require similar mitigation measures to reduce these impacts to less-than-significant levels and, as such, Alternative 2 would result in similar land use and planning impacts as the proposed project.

7.6.2.9 Noise and Vibration

Noise impacts associated with construction activities and the increase in visitors compared to existing conditions would similarly occur under the SDCC Phase III Expansion Alternative and the proposed project. While operational impacts would be mitigated to less-than-significant levels under Alternative 2, construction noise has the potential to result in temporary significant and unavoidable impacts. Noise and vibration impacts under Alternative 2 would be similar to those of the proposed project.

7.6.2.10 Public Services and Recreation

The SDCC Phase III Expansion would result in similar demand for police service, fire service, school service, parks, or other public services as the proposed project. Under this alternative, the physical impacts related to the development of rooftop park/plaza would be significant and unavoidable. However, because the marina would not be expanded under the No Project/Port Master Plan Consistency Alternative, a low-cost slip would not be constructed. Therefore, Alternative 2's public services and recreation impacts would be similar to those of the proposed project.

7.6.2.11 Transportation, Circulation, and Parking

The No Project/Port Master Plan Consistency Alternative would result in significant and unavoidable impacts on freeway mainline segments similar to the proposed project. In addition, parking demand would be reduced compared to the proposed project, and Alternative 2 would result in significant impacts related to parking. However, because Alternative 2 would involve less intense development than the proposed project, less traffic would be generated, and Alternative 2 would result in slightly reduced impacts on transportation, circulation, and parking compared to the proposed project.

7.6.2.12 Tribal Cultural Resources

Alternative 2 would require a similar level of ground disturbance at the project site as the proposed project and would have a similar potential to affect any tribal cultural resources. However, the proposed project would not result in any impacts on tribal cultural resources; as such, similar to the proposed project, Alternative 2 would not result in any impacts on tribal cultural resources.

7.6.2.13 Utilities and Energy Use

Construction of Alternative 2 would require improvements to sewer lines and storm drains at the project site. Construction of these improvements could result in impacts related to cultural resources and contaminated soils. Impacts related to utilities and energy use would be similar under Alternative 2 to those of the proposed project.

7.6.2.14 Relationship to Project Objectives and Summary of Impacts

The No Project/Port Master Plan Consistency Alternative (SDCC Phase III Expansion) would not meet the project objectives associated with the development and operation of the proposed project. Alternative 2 would meet a portion of Objective #3 by providing infill development compatible with surrounding uses. However, whether this alternative would meet the economic objectives of Objective #3 involves economic and policy considerations within the discretion of the Board of Port Commissioners. Alternative 2 would meet a portion of Objective #4 because it would increase activation at the project site and along the bayfront by providing a 5-acre rooftop plaza and park area and would continue to provide a WTC, but Alternative 2 would not expand marina services. Alternative 2 would meet Objectives #5 and #6 by providing public vista opportunities of San Diego Bay from the SDCC and public plazas and by improving public access to the waterfront and Embarcadero Promenade. This alternative would meet Objective #7 because the proposed SDCC Phase III Expansion would incorporate sustainable design features into the proposed development. This alternative would substantially reduce the aesthetics and visual resources and GHG emission impacts associated with the proposed project because of the reduced height of the convention

center compared to the hotel tower, consistency with the public vistas identified in the current PMP, and decreased boating activity. However, all other impacts would be similar.

7.6.3 Analysis of Alternative 3 – No Net New Marina Alternative

7.6.3.1 Aesthetics and Visual Resources

Alternative 3 would not include the marina expansion component of the project. No aesthetic and visual resources impacts associated with the marina expansion were identified with the proposed project; similarly, no impacts would occur under Alternative 3.

The project components of Alternative 3 associated with the landside improvements would be developed as proposed, including the hotel tower, lower-cost visitor-serving hotel, retail along the promenade, parking structure, ballroom, and public parks and plazas. Therefore, impacts related to aesthetics and visual resources, including the displacement of five existing vista areas and substantial interference with views available from key observation points (KOPs), would occur under this alternative. The introduction of a high-rise hotel tower within the viewshed of vista areas at the SDCC's existing plaza and grand staircase would block or substantially obstruct existing expansive and uninterrupted views of the San Diego Bay, including views of the San Diego – Coronado Bay Bridge. Under the No Net New Marina Alternative, impacts on aesthetics and visual resources under Alternative 3 would be similar to those of the proposed project.

7.6.3.2 Air Quality and Health Risk

Under Alternative 3, the marina would not be expanded, which does not contribute substantially to the air pollutant emissions generated by construction and operation of the proposed project. However, although the marina expansion would not be constructed under Alternative 3, the other components of the proposed project that generate air pollutant emissions would be developed as proposed, including the hotel tower and lower-cost visitor-serving hotel, as well as the parking structure, ballrooms, retail along the promenade, and public parks and plazas. Alternative 3 would not reduce air pollutant emissions compared to the proposed project. Therefore, Alternative 3 air quality and health risk impacts would be similar to those of the proposed project.

7.6.3.3 Biological Resources

Alternative 3 would require removal of all trees at the project site, which has the potential to disturb MBTA-protected nests and would still make use of reflective glass material on the hotel tower, which would result in increased bird strikes, because the landside components of this alternative are similar to the proposed project. However, the marina would not be expanded under Alternative 3. Therefore, Alternative 3 would result in less boating activity in the project vicinity, which would reduce impacts on biological resources related to boat traffic. In addition, Alternative 3 would not expand the pier and increase the number of piles in the water, which would result in reduced impacts on biological resources, including injury of green sea turtles and marine mammals, loss of open water habitat and function, and reduction in eelgrass habitat. Overall, Alternative 3 would result in fewer impacts on biological resources compared to the proposed project. However, similar to the proposed project, mitigation would be required to reduce biological resources impacts under Alternative 3 to less-than-significant levels. Therefore, impacts on biological resources under

Alternative 3 would be slightly reduced compared to the proposed project. However, because impacts for the proposed project can be reduced to less-than-significant levels with mitigation, which includes a mitigation for no net loss of overwater coverage habitat, impacts would be similar.

7.6.3.4 Cultural Resources

All landside project components would remain the same under Alternative 3 as under the proposed project and Alternative 3 would result in the same degree of ground-disturbing activities throughout the entire project site, which have the potential to disturb archaeological or paleontological resources. Alternative 3 would result in similar impacts on cultural resources as the proposed project.

7.6.3.5 Geology and Soils

Similar to the proposed project, Alternative 3 would require extensive ground-disturbing activities, including grading of up to 5 acres of the project site. These activities have the same potential to exacerbate liquefaction and lateral spreading as would occur under the proposed project. Therefore, Alternative 3 would result in similar impacts related to geology and soils as the proposed project.

7.6.3.6 Greenhouse Gas Emissions and Climate Change

Under Alternative 3, all landside components that are proposed under the project would be implemented and the landside components of Alternative 3 would result in the same GHG emissions as would occur under the proposed project. However, because Alternative 3 would not result in additional boat slips at the project site, the recreational boating activities that have the potential to generate significant GHG emissions would be substantially reduced. Therefore, Alternative 3 would result in substantially reduced GHG impacts compared to the proposed project.

7.6.3.7 Hazards and Hazardous Materials

Waterside construction activities at the project site have the potential to disturb contaminated sediment and damage the cap that was put in place to protect the Bay from contaminated sediment. In addition, ground-disturbing activities within the landside portion of the project site have the potential to encounter contaminated soil. Because the intensity of construction activity within the landside portion of the project site would be the same under Alternative 3 as it is under the proposed project, Alternative 3 would result in similar impacts on hazards and hazardous materials as the proposed project. Under Alternative 3, no waterside construction activities would occur at the project site. However, because the marina would not be developed under Alternative 3, this alternative would not result in disturbance to sediment and the area by the cap within the waterside portion of the project site. Therefore, Alternative 3 would result in reduced impacts related to hazards and hazardous materials related to contaminated sediment and potential damage to the engineered cap compared to the proposed project.

7.6.3.8 Hydrology and Water Quality

Alternative 3 would eliminate the marina expansion that is proposed under the proposed project and, as such, would avoid the construction of additional of piers and piles within the waterside portion of the project site and increased boating activity beyond the existing condition. The elimination of marina expansion would reduce the potential for polluted runoff to enter the Bay 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 substantially reduced compared to the proposed project.

7.6.3.9 Land Use and Planning

Alternative 3 would result in the same landside improvements as those proposed as part of the project, which would result in the displacement of five vista areas. In addition, the landside improvements under Alternative 3 have the potential to be inconsistent with California Coastal Commission sea-level rise guidelines. Alternative 3 would require the same mitigation measures to reduce these impacts to less-than-significant levels, and, as such, Alternative 3 would result in similar land use and planning impacts as the proposed project.

7.6.3.10 Noise and Vibration

The intensity of construction activities as well as the overall development at the project site would be similar under Alternative 3 to that of the proposed project, and Alternative 3 would result in similar noise impacts. Because the marina would not be expanded under Alternative 3, there would be no impacts associated with the construction of the marina under this alternative. As such, Alternative 3 would result in slightly reduced noise impacts compared to the proposed project.

7.6.3.11 Public Services and Recreation

Alternative 3 would result in the same number of hotel rooms, retail space, and other elements as the proposed project and would create the same demand on police and fire services in the project area. In addition, Alternative 3 would result in the same amount of public plaza and park area as the proposed project, the construction of which would result in a number of impacts related to the resources addressed throughout this EIR, and would require wayfinding signage and other amenities. However, because the marina would not be expanded under the No Net New Marina Alternative, a low-cost slip would not be constructed. Therefore, Alternative 3's public services and recreation impacts would be similar to those of the proposed project.

7.6.3.12 Transportation, Circulation, and Parking

Alternative 3 would not expand the marina, but would still construct the same number of hotel rooms and the same amount of retail space, conference/ballroom space, and public plaza and park area. Alternative 3 would result in a reduction in the amount of traffic generated by the proposed project to a total of 8,335 daily trips compared to the 8,486 daily trips that would be generated by the proposed project. Alternative 3 would still result in significant and unavoidable impacts on intersection and freeway segments in the project area. In addition, while parking demand would be slightly reduced compared to the proposed project, Alternative 3 would still result in significant impacts related to parking. Overall, Alternative 3 would result in similar impacts on transportation, circulation, and parking as the proposed project.

7.6.3.13 Tribal Cultural Resources

Alternative 3 would require a similar level of ground disturbance at the project site as the proposed project and would have a similar potential to affect any tribal cultural resources. However, the

proposed project would not result in any impacts on tribal cultural resources; as such, similar to the proposed project, Alternative 3 would not result in any impacts on tribal cultural resources.

7.6.3.14 Utilities and Energy Use

Construction of Alternative 3 would require improvements to sewer lines and storm drains at the project site. Construction of these improvements could result in impacts related to archaeological resources and contaminated soils. Impacts related to utilities and energy use would be similar under Alternative 3 to those of the proposed project.

7.6.3.15 Relationship to Project Objectives and Summary of Impacts

This alternative would meet the majority of the project objectives. The only objective that would not be met is Objective #4, which aims to expand marina services and space to meet market demands and increase activation to the project site and along the bayfront by access from the waterside. However, this alternative would only reduce impacts related to the marina expansion component of the proposed project, including GHG impacts related to increased boating activity; biological resource impacts associated with loss of eelgrass and open water habitat; hazards and hazardous materials impacts associated with the avoidance of construction near the sediment cap and potentially contaminated sediment; and hydrology and water quality impacts associated with increased fill from piles and expanded marina facilities.

7.6.4 Analysis of Alternative 4 – Phase I Only Marina Alternative

7.6.4.1 Aesthetics and Visual Resources

Alternative 4 would reduce the size and length of the marina and would not extend as far out into the Bay as the marina proposed under the project. However, the other components of the proposed project would be developed as proposed, including the hotel tower and lower-cost visitor-serving hotel, as well as the parking structure, ballrooms, retail along the promenade, and public parks and plazas. Therefore, impacts related to aesthetics and visual resources, including the displacement of five existing vista areas and substantial interference with views available from KOPs, would occur under this alternative. Impacts from Alternative 4 on aesthetics and visual resources would be similar to those of the proposed project.

7.6.4.2 Air Quality and Health Risk

Construction and operation of Phase I of the marina expansion would not contribute substantially to the air pollutant emissions generated by construction and operation of the proposed project. Although the marina expansion would be reduced under this alternative, the other components of the proposed project would be developed as proposed, including the hotel tower and lower-cost visitor-serving hotel, as well as the parking structure, ballrooms, retail along the promenade, and public parks and plazas. Alternative 4 would not reduce air pollutant emissions compared to the proposed project. Therefore, Alternative 4 air quality and health risk impacts would be similar to those of the proposed project.

7.6.4.3 Biological Resources

Alternative 4 would require removal of all trees at the project site, which has the potential to disturb MBTA-protected nests. However, Alternative 4 would reduce the total number of boat slips at the project site. Therefore, Alternative 4 would result in less boating activity in the project vicinity, which would reduce impacts on biological resources related to boat traffic. In addition, Alternative 4 would reduce the number of piles and total area of piers and would also result in reduced impacts related to loss of open water habitat or function. Overall, Alternative 4 would result in fewer impacts on biological resources compared to the proposed project. However, similar to the proposed project, mitigation would be required to reduce biological resources impacts under Alternative 4 to less-than-significant levels. Therefore, impacts on biological resources under Alternative 4 would be slightly reduced compared to the proposed project.

7.6.4.4 Cultural Resources

All landside project components would remain the same under Alternative 4 as under the proposed project and Alternative 4 would result in the same degree of ground-disturbing activities throughout the entire project site, which have the potential to disturb archaeological or paleontological resources. Alternative 4 would result in similar impacts on cultural resources as the proposed project.

7.6.4.5 Geology and Soils

Similar to the proposed project, Alternative 4 would require extensive ground-disturbing activities, including grading of up to 5 acres of the project site. These activities have the same potential to exacerbate liquefaction and lateral spreading as would occur under the proposed project. Therefore, Alternative 4 would result in similar impacts related to geology and soils as the proposed project.

7.6.4.6 Greenhouse Gas Emissions and Climate Change

Under Alternative 4, all landside components that are proposed under the project would be implemented and would result in the same GHG emissions as would occur under the proposed project. However, recreational boating activities also have the potential to generate GHG emissions. Because Alternative 4 would result in fewer slips at the project site than would occur under the proposed project, Alternative 4 would result in a slight reduction of GHG emissions, and, therefore, Alternative 4 would result in slightly reduced GHG and climate change impacts compared to the proposed project.

7.6.4.7 Hazards and Hazardous Materials

Waterside construction activities at the project site have the potential to disturb contaminated sediment and damage the cap that was put in place to protect the Bay from contaminated sediment. In addition, ground-disturbing activities within the landside portion of the project site have the potential to encounter contaminated soil. Because the intensity of construction activity within the landside portion of the project site would be the same under Alternative 4 as that under the proposed project, Alternative 4 would result in similar impacts on hazards and hazardous materials as the proposed project. However, because the marina that would be developed under Alternative 4 would be smaller than that under the proposed project, Alternative 4 would disturb less sediment and less area covered by the cap within the waterside portion of the project site. Therefore,

Alternative 4 would result in slightly reduced impacts related to hazards and hazardous materials compared to the proposed project.

7.6.4.8 Hydrology and Water Quality

Alternative 4 would result in a smaller marina than that under the proposed project and, as such, would result in smaller area of piers and piles within the waterside portion of the project site as well as less boating activity, due to the fewer number of slips that would be provided. The smaller marina would reduce the potential for polluted runoff to enter the Bay as well as reduce the potential for violations to water quality standards and waste discharge requirements. Hydrology and water quality impacts under Alternative 4 would be slightly reduced compared to the proposed project.

7.6.4.9 Land Use and Planning

Alternative 4 would result in the same landside improvement as those proposed as part of the project, which would result in the displacement of five vista areas and a potential conflict with California Coastal Act (CCA) policies related to public access. In addition, the landside improvements under Alternative 4 have the potential to be inconsistent with California Coastal Commission sea-level rise guidelines. Alternative 4 would require the same mitigation measures to reduce these impacts to less-than-significant levels, and as such, Alternative 4 would result in similar land use and planning impacts as the proposed project.

7.6.4.10 Noise and Vibration

The intensity of construction activities as well as the overall development at the project site would be similar under Alternative 4 to that under the proposed project, and Alternative 4 would result in similar noise impacts. Because the marina would be smaller under Alternative 4, the duration of noise and vibration resulting from construction of the marina would be slightly reduced under this alternative. As such, Alternative 4 would result in slightly reduced noise impacts compared to the proposed project.

7.6.4.11 Public Services and Recreation

Alternative 4 would result in the same number of hotel rooms, retail space, and other elements as the proposed project and would create the same demand on police and fire services in the project area. In addition, Alternative 4 would result in the same amount of public plaza and park areas as the proposed project, the construction of which would result in a number of impacts related to the resources addressed throughout this EIR, and would require wayfinding signage and other amenities. Furthermore, Alternative 4 has the same potential to limit public access to the marina, and would require mitigation to incorporate a low-cost slip. Therefore, Alternative 4's public services and recreation impacts would be similar to those of the proposed project.

7.6.4.12 Transportation, Circulation, and Parking

Alternative 4 would result in the reduction of 27 slips at the marina compared to the proposed project, but would construct the same number of hotel rooms and the same amount of retail space, conference/ballroom space, and public plaza and park areas. The reduction in boat slips would result in a slight reduction in the amount of traffic generated by the proposed project, with Alternative 4 resulting in a total of 8,426 daily trips compared to the 8,486 daily trips that would be

generated by the proposed project. Alternative 4 would still result in significant and unavoidable impacts on intersection and freeway segments in the project area. In addition, parking demand would be similar compared to the proposed project and Alternative 4 would result in significant impacts related to parking. Overall, Alternative 4 would result in similar impacts on transportation, circulation, and parking as the proposed project.

7.6.4.13 Tribal Cultural Resources

Alternative 4 would result in a similar intensity of development at the project site as the proposed project and would have a similar potential to affect any tribal cultural resources. However, the proposed project would not result in any impacts on tribal cultural resources; as such, similar to the proposed project, Alternative 4 would not result in any impacts on tribal cultural resources.

7.6.4.14 Utilities and Energy Use

Construction of Alternative 4 would require improvements to sewer lines and storm drains at the project site. Construction of these improvements could result in impacts related to archaeological resources and contaminated soils. Impacts related to utilities and energy use would be similar under Alternative 4 to those of the proposed project.

7.6.4.15 Relationship to Project Objectives and Summary of Impacts

This alternative would meet most of the project objectives. While the marina would be smaller under this alternative by providing 23 new slips instead of 50 new slips, this alternative would still meet the objective of providing marina services and slips to meet demand. However, this alternative would provide a reduced amount of space to meet marina market demands and increased activation at the project site as compared to the proposed project. Therefore, Alternative 4 would not fully meet Objective #4 as compared to the proposed project. Although Alternative 4 would meet a portion of Objective #3 by providing infill development compatible with surrounding uses, whether this alternative would meet the economic objectives of Objective #3 involves economic and policy considerations within the discretion of the Board of Port Commissioners. However, while this alternative would lessen impacts associated with biological resources, GHG emissions, hazards and hazardous materials, hydrology and water quality, and noise and vibration, it would not reduce any of the significant and unavoidable impacts related to aesthetics, noise, and transportation, circulation, and parking that would occur under the proposed project.

7.6.5 Analysis of Alternative 5 – Reduced Density Alternative

7.6.5.1 Aesthetics and Visual Resources

While the total number of hotel rooms would be reduced under Alternative 5, the building area would still cover the entire project site, which would eliminate the five vista areas that are designated within the project site. In addition, even with the reduced height of the hotel tower, the massing of the buildings would still result in the substantial interference of views from existing vista areas and KOPs. Therefore, Alternative 5 would result in similar impacts on aesthetics and visual resources as the proposed project.

7.6.5.2 Air Quality and Health Risk

Alternative 5 would introduce the same land uses to the project site as the proposed project, and therefore would result in impacts related to land uses that were not accounted for in the RAQS and SIP. Furthermore, while Alternative 5 would result in a smaller project than the proposed project, Alternative 5 is still a substantial project and construction activities could still generate emissions in excess of criteria pollutant thresholds under project-specific and cumulative conditions, albeit in slightly reduced quantities. Therefore, mitigation would be required to reduce air quality impacts under Alternative 5 to less-than-significant levels. Impacts, while slightly reduced, would be similar to those of the proposed project.

7.6.5.3 Biological Resources

Alternative 5 would require removal of all trees at the project site, which would result in potential disturbance of MBTA-protected nests. In addition, Alternative 5 would include an expanded marina that is the same size as the one proposed in the project, which would result in similar impacts on biological resources including injury of green sea turtles and marine mammals, loss of open water habitat and function, and reduction in eelgrass habitat. Finally, while the hotel tower would be shorter under Alternative 5 than the tower proposed by the project, it would still make use of reflective glass material, which could result in increased bird strikes. Impacts on biological resources under Alternative 5 would be similar to those occurring under the proposed project.

7.6.5.4 Cultural Resources

While Alternative 5 would result in a reduced density (i.e., fewer hotel rooms) compared to the proposed project, Alternative 5 would require the same degree of ground-disturbing activities throughout the entire project site, which have the potential to disturb archaeological or paleontological resources. Alternative 5 would result in similar impacts on cultural resources as the proposed project.

7.6.5.5 Geology and Soils

Similar to the proposed project, Alternative 5 would require extensive ground-disturbing activities, including grading the entire 5-acre project site. These activities have the same potential to exacerbate liquefaction and lateral spreading or soil collapse as would occur under the proposed project. Therefore, Alternative 5 would result in similar impacts related to geology and soils as the proposed project.

7.6.5.6 Greenhouse Gas Emissions and Climate Change

Alternative 5 would result in smaller buildings than the proposed project and fewer visitors, due to the reduction in the number of hotel rooms. Therefore, Alternative 5 would result in an approximately 20% reduction in the generation of GHG emissions related to vehicular emissions and energy generation than the proposed project. While Alternative 5 would still require mitigation to ensure compliance with the District's CAP, overall, this alternative would result in slightly reduced impacts related to GHG emissions than the proposed project.

7.6.5.7 Hazards and Hazardous Materials

As with the proposed project, waterside construction activities occurring under Alternative 5 to construct the marina expansion have the potential to disturb contaminated sediment and damage the cap that was put in place to protect the Bay from contaminated sediment. In addition, ground-disturbing activities within the landside portion of the project site have the potential to encounter contaminated soil. Because the intensity of construction activity within the landside portion of the project site under Alternative 5 would be similar to that under the proposed project (i.e., similar area of disturbance and amount of excavation within both the landside and waterside portions of the project site), Alternative 5 would result in similar impacts on hazards and hazardous materials as the proposed project.

7.6.5.8 Hydrology and Water Quality

Alternative 5 would result in an expanded marina that would be the same size as the one proposed under the project. Development of this marina would result in the potential for polluted runoff to enter the Bay as well as the potential for violations to water quality standards and waste discharge requirements. Hydrology and water quality impacts under Alternative 5 would be similar to those of the proposed project.

7.6.5.9 Land Use and Planning

Alternative 5 would result in the same landside improvements as those proposed as part of the project, which would result in the displacement of five vista areas and a potential conflict with CCA policies related to public access. In addition, the landside improvements under Alternative 5 have the potential to be inconsistent with California Coastal Commission sea-level rise guidelines. Alternative 5 would require the same mitigation measures to reduce these impacts to less-than-significant levels, and as such, Alternative 5 would result in similar land use and planning impacts as the proposed project.

7.6.5.10 Noise and Vibration

Alternative 5 would result in a smaller project than the proposed project, which could result in a slightly reduced duration of construction. However, similar types of construction equipment would be used and construction would still take several years to complete, and noise during construction of Alternative 5 would likely exceed noise standards and result in substantial increases in ambient noise levels. In addition, operation of Alternative 5 would require similar mechanical equipment as under the proposed project and would involve outdoor special events, which would exceed adopted noise standards and result in substantial increases in ambient noise levels. Therefore, Alternative 5 would result in similar impacts related to noise as the proposed project.

7.6.5.11 Public Services and Recreation

Alternative 5 would result in a reduced number of hotel rooms as the proposed project, which would result in a slightly reduced demand on police and fire services compared to the proposed project. However, Alternative 5 would result in the same amount of public plaza and park areas as the proposed project, the construction of which would result in a number of impacts related to the resources addressed throughout this EIR, and would require wayfinding signage and other amenities. Furthermore, Alternative 5 has the same potential to limit public access to the marina,

and would require mitigation to incorporate a low-cost slip. Therefore, impacts on public services and recreation from Alternative 5 would be similar to those of the proposed project.

7.6.5.12 Transportation, Circulation, and Parking

Alternative 5 would construct a total of 1,132 rooms at the project site, which would represent a reduction of 283 rooms compared to the proposed project. Other project components, such as retail space, public plaza and park areas, and the marina, would remain the same. The reduction in hotel rooms would reduce trip generation to 6,892 average daily trips compared to the 8,486 daily trips that would be generated by the proposed project. With this reduction in traffic, Alternative 5 would reduce all direct impacts on intersections and freeway segments to less-than-significant levels, but would still result in significant and unavoidable cumulative impacts. However, parking demand under Alternative 5 would also be substantially reduced, and significant and unavoidable parking impacts would be avoided under this alternative as well. Overall, Alternative 5 would result in substantially reduced impacts related to transportation, circulation, and parking compared to the proposed project because it would avoid the direct significant and unavoidable transportation impacts resulting from the proposed project.

7.6.5.13 Tribal Cultural Resources

Alternative 5 would require a similar level of ground disturbance at the project site as the proposed project and would have a similar potential to affect any tribal cultural resources. However, the proposed project would not result in any impacts on tribal cultural resources; as such, similar to the proposed project, Alternative 5 would not result in any impacts on tribal cultural resources.

7.6.5.14 Utilities and Energy Use

Alternative 5 would require improvements to sewer lines and storm drains at the project site. Construction of these improvements could result in impacts related to archaeological resources and contaminated soils. As a result of the reduced number of hotels rooms proposed with this alternative, energy use and vehicle fuel consumption would be reduced by approximately 20% under Alternative 5 compared to the proposed project. However, similar to the proposed project, impacts related to utilities and energy use would be less than significant.

7.6.5.15 Relationship to Project Objectives and Summary of Impacts

The Reduced Density Alternative would meet most of the basic project objectives. Specifically, it would meet Objectives #1 through #7 because it would provide a full-service hotel appropriate for first-class convention operations, provide lower-cost visitor-serving accommodations at the site, provide infill development on District tidelands that is compatible with surrounding uses, increase activation along the waterfront by providing public plaza and park areas, and provide new public vista points. However, because of the decrease in hotel rooms under Alternative 5, this alternative would not fully meet Objective #1: developing a full-service hotel that is a financially viable operation or providing a similar number of hotel rooms as the adjacent hotels (under this alternative, only 680 rooms would be provided in the hotel tower). This alternative would not fully meet Objective #2 as compared to the proposed project, because the reduced number of lower-cost visitor-serving beds would reduce access and enjoyment by the public and reduce the project's ability to meet Board Policy 775. In addition, although whether this alternative would meet the economic objectives of Objective #3 involves economic and policy considerations within the

discretion of the Board of Port Commissioners, it would not fully meet Objective #3 because this alternative would not maximize the economic benefit to the District and City of San Diego at the project site. However, this alternative would substantially reduce the project's direct significant and unavoidable impacts related to transportation, circulation, and parking.

7.6.6 Analysis of Alternative 6 – Below Grade Parking Alternative

7.6.6.1 Aesthetics and Visual Resources

Alternative 6 would add a subterranean parking garage level under the proposed ground-level parking garage. Under Alternative 6, the other components of the proposed project would be developed as proposed, including the market-rate hotel tower and lower-cost visitor-serving hotel, ballrooms, retail along the promenade, public plaza and park areas, and expansion of the marina. As such, when compared to the proposed project, the construction and operations of Alternative 6 would result in similar impacts and would require the implementation of the same mitigation measures as described in Section 4.1, *Aesthetics and Visual Resources*, to reduce impacts to less-than-significant levels. The construction and operation of the subterranean parking garage would not result in any additional aesthetic and visual resources impacts. Therefore, impacts on aesthetics and visual resources under Alternative 6 would be similar to those of the proposed project.

Under cumulative conditions, Alternative 6, for reasons identical to the proposed project, would not result in any cumulatively considerable impacts related to aesthetics and visual resources.

7.6.6.2 Air Quality and Health Risk

In addition to the inclusion of the subterranean parking garage level under Alternative 6, all the other components of the proposed project would be developed as proposed, including the hotel tower and lower-cost visitor-serving hotel, ballrooms, retail along the promenade, public plaza and park areas, and expansion of the marina. However, Alternative 6 could result in greater air pollutant emissions compared to the proposed project due to the increase in excavated material for the subterranean parking garage, the majority of which could not be reused on site. Therefore, this alternative would require an increase in haul trucks coming and going to the project site, which would increase emissions related to vehicular emissions during construction.

The methodology used to estimate air quality and health risk impacts under Alternative 6 is similar to the proposed project except that inclusion of the subterranean parking garage would increase the amount of excavated materials to be taken to an offsite recycling facility from 36,500 cubic yards (CY) under the proposed project to 141,500 CY under Alternative 6. This increase in excavation would increase the number of total trucks to 9,800 trucks over the 100-day excavation and foundation phase (Phase 2.1), which would be 98 trucks per day. Similar to the proposed project, it was assumed that excavated soils would be taken to a recycling facility in Arizona. Emissions were estimated using the same exhaust and road dust emission factors assumed for the proposed project, as described in Section 4.2.4.1. As shown in Table 7-3, emissions during construction would be above San Diego County's screening-level thresholds (SLTs) for volatile organic compound (VOC) emissions that would be slightly higher than those of the proposed project, but below San Diego County's SLTs for all other pollutants, similar to the proposed project. Therefore, similar to the proposed project, construction of this alternative would violate the VOC air quality standard or

contribute substantially to an existing or projected ozone violation, and the impacts, while at a slightly greater level, would be the same as the impact identified in Section 4.2, *Air Quality and Health Risk*.

As shown in Table 7-4, with implementation of the same mitigation measures identified in Section 4.2, *Air Quality and Health Risk*, emissions during construction would be reduced to below San Diego County's SLTs, similar to the proposed project. 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 after mitigation, and air quality and health risk impacts under Alternative 6 would be similar to the proposed project, as described in Section 4.2, *Air Quality and Health Risk*.

Under cumulative conditions, Alternative 6, like the proposed project, would have the potential to result in the same cumulatively considerable air quality and health risks impacts as identified in Chapter 5, *Cumulative Impacts*. However, similar to the proposed project, these potential cumulative impacts would be reduced to less than cumulatively considerable levels considerable with the implementation of same mitigation measures as described in Section 4.2, *Air Quality and Health Risk*. Therefore, the construction and operation of the subterranean parking garage would not result in any additional cumulatively considerable air quality and health risks impacts and impacts would be the same as compared to the proposed project.

Table 7-3. Estimate of Construction Emissions Under Alternative 6 Below Grade Parking Alternative Prior to Mitigation (pounds per day)

Construction Phase	VOC	NO _x	CO	SO _x	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5 Total
Phase 1: Mobilization and Site Preparation										
Mobilization/Demolition	1	19	8	<1	1	11	12	1	4	5
Dewatering/Shoring	1	18	6	<1	<1	2	3	<1	1	1
Phase 2: Market-Rate Hotel Tower & Meeting Areas										
Excavation and Foundation	8	206	44	3	3	39	42	3	12	14
Structural Frame	2	18	18	1	1	4	5	1	1	2
Exterior Closure and Roofing	1	9	13	<1	<1	3	3	<1	1	1
Interior Rough-In (Elev./MEP/Framing)	<1	1	5	<1	<1	5	5	<1	1	1
Interior Construction/Finishes	69	8	10	<1	<1	2	2	<1	<1	1
MEP Systems	1	8	14	<1	<1	5	5	<1	1	2
Phase Completion Work	0	1	5	<1	<1	5	5	<1	1	1
Phase 3: Lower-Cost Visitor-Serving Hotel										
Foundations	1	8	6	<1	<1	1	1	<1	<1	<1
Structural Frame	1	4	5	<1	<1	1	1	<1	<1	<1
Exterior Closure	<1	5	6	<1	<1	<1	1	<1	<1	<1
Interior Construction/Finishes	10	6	7	<1	<1	1	1	<1	<1	<1
Phase Completion Work	0	6	7	<1	<1	1	1	<1	<1	<1
Phase 4: Site Work										
Offsite Demolition/Grading/Utilities	2	19	15	<1	1	8	8	1	4	4
Site Improvements	43	32	31	<1	2	3	4	2	1	2
Phase 5: Waterside Work										
Marina Construction	5	14	64	<1	<1	<1	<1	<1	<1	<1
Maximum Daily Construction	128	247	163	1	4	44	48	4	13	17
San Diego County SLTs	75	250	550	150	--	--	100	--	--	55
<i>Exceed Significant Threshold?</i>	Yes	No	No	No	--	--	No	--	--	No

Source: ICF Emissions Modeling (Appendix C).

Notes: Maximum daily emissions for each pollutant varies. Totals may not add exactly due to rounding.

Table 7-4. Estimate of Construction Emissions Under the Below Grade Parking Alternative after Mitigation (pounds per day)

Construction Phase	VOC	NO _x	CO	SO _x	PM10 Exhaust	PM10 Dust	PM10 Total	PM2.5 Exhaust	PM2.5 Dust	PM2.5 Total
Phase 1: Mobilization and Site Preparation										
Mobilization/Demolition	1	19	8	<1	1	11	12	1	4	5
Dewatering/Shoring	1	18	6	<1	<1	2	3	<1	1	1
Phase 2: Market-Rate Hotel Tower & Meeting Areas										
Excavation and Foundation	8	185	42	3	3	35	38	2	11	13
Structural Frame	2	18	18	1	1	4	5	1	1	2
Exterior Closure and Roofing	1	9	13	<1	<1	3	3	<1	1	1
Interior Rough-In (Elev./MEP/Framing)	<1	1	5	<1	<1	5	5	<1	1	1
Interior Construction/Finishes	21	8	10	<1	<1	2	2	<1	<1	1
MEP Systems	1	8	14	<1	<1	5	5	<1	1	2
Phase Completion Work	0	1	5	<1	<1	5	5	<1	1	1
Phase 3: Lower-Cost Visitor-Serving Hotel										
Foundations	1	8	6	<1	<1	1	1	<1	<1	<1
Structural Frame	1	4	5	<1	<1	1	1	<1	<1	<1
Exterior Closure	<1	5	6	<1	<1	<1	1	<1	<1	<1
Interior Construction/Finishes	3	6	7	<1	<1	1	1	<1	<1	<1
Phase Completion Work	0	6	7	<1	<1	1	1	<1	<1	<1
Phase 4: Site Work										
Offsite Demolition/Grading/Utilities	2	19	15	<1	1	8	8	1	4	4
Site Improvements	15	32	31	<1	2	3	4	2	1	2
Phase 5: Waterside Work										
Marina Construction	5	14	64	<1	<1	<1	<1	<1	<1	<1
Maximum Daily Construction	45	225	163	1	4	40	44	4	12	16
San Diego County SLTs	75	250	550	150	-	-	100	-	-	55
<i>Exceed Significant Threshold?</i>	No	No	No	No	-	-	No	-	-	No

Source: ICF Emissions Modeling (Appendix C).

Notes: Maximum daily emissions for each pollutant varies. Totals may not add exactly due to rounding.

7.6.6.3 Biological Resources

Alternative 6 includes all of the landside and waterside components of the proposed project. Similar to the proposed project, both landside and in-water construction activities under Alternative 6 would have the potential to result in significant impacts on wildlife and sensitive habitat communities. As such, when compared to the proposed project, the construction and operations of Alternative 6 would result in similar impacts and would require the implementation of the same mitigation measures as described in Section 4.3, *Biological Resources*, to reduce impacts to a less-than-significant level. The construction and operation of the subterranean parking garage would not result in any additional biological resources impacts. Therefore, impacts on biological resources under Alternative 6 would be similar to those of the proposed project.

Under cumulative conditions, Alternative 6, for reasons identical to the proposed project, would not result in any cumulatively considerable impacts on biological resources.

7.6.6.4 Cultural Resources

The project site does not contain any historic resources; therefore, Alternative 6 would not result in impacts on historic resources, similar to the proposed project. Alternative 6 would result in an increased amount of ground-disturbing activities to develop the subterranean parking garage level when compared to the proposed project. Similar to the proposed project, Alternative 6 has the potential to disturb archaeological resources and affect highly sensitive paleontological resources. Alternative 6 would result in an increased amount of ground-disturbing activities to develop the subterranean parking level when compared to the proposed project. Therefore, Alternative 6 has the potential to result in a slightly greater disturbance of archaeological resources when compared to the proposed project. However, similar to the proposed project, these potential impacts would be reduced to less-than-significant levels with implementation of same mitigation measures as identified in Section 4.4, *Cultural Resources*. The construction and operation of the subterranean parking garage would not result in any additional cultural resources impacts. Therefore, impacts on cultural resources under Alternative 6 would be less than significant after mitigation and would be slightly greater, but similar to those of the proposed project.

Under cumulative conditions, Alternative 6, for reasons identical to the proposed project, would not result in any cumulatively considerable impacts on cultural resources.

7.6.6.5 Geology and Soils

With the subterranean parking garage level, Alternative 6 would require extensive ground-disturbing activities, including excavating and grading the entire 5-acre project site to a depth of approximately 12 feet below grade. As a result, these activities have an increased potential to exacerbate liquefaction and lateral spreading or soil collapse at the project site compared to the proposed project. Construction activities associated with Alternative 6 would potentially exacerbate existing geologic hazards at a slightly greater level than the proposed project. However, similar to the proposed project, these impacts would be reduced to less-than-significant levels with implementation of the same mitigation measure as identified in Section 4.5, *Geology and Soils*. The construction and operation of the subterranean parking garage would not result in any additional geology and soils impacts. Therefore, Alternative 6 would result in less-than-significant geology and soils impacts that would be slightly greater, but similar to those of the proposed project.

Under cumulative conditions, Alternative 6, for reasons identical to the proposed project, would not result in any cumulatively considerable impacts related to geology and soils.

7.6.6.6 Greenhouse Gas Emissions and Climate Change

Under Alternative 6, all components of the proposed project would be implemented, and the alternative would result in the same GHG emissions as would occur under the proposed project. With the development of a subterranean garage, all parking would be accommodated on site and would therefore reduce the amount of driving associated with looking for parking off site. However, this alternative would require an increase in haul trucks to remove excavated material for the subterranean parking garage, which would increase emissions during construction. A quantitative analysis was performed to estimate the degree to which GHG emissions and climate change impacts would change relative to the proposed project.

The methodology used to estimate GHG emissions and climate change impacts under Alternative 6 is similar to the proposed project except that inclusion of the subterranean parking garage would increase the amount of excavated materials to be taken to an offsite recycling facility from 36,500 CY under the proposed project to 141,500 CY under Alternative 6. This increase in excavation would increase the number of total trucks to 9,800 trucks over the 100-day excavation and foundation phase (Phase 2.1). Similar to the proposed project, it was assumed that excavated soils would be taken to a recycling facility in Arizona. Emissions were estimated using the same exhaust emission factors assumed for the proposed project, as described in Section 4.6.4.1.

As shown in Table 7-5, emissions during construction of Alternative 6 would generate approximately 6,055 MTCO₂e over the projected 2.5-year construction period, which is 1,885 MTCO₂e more than the proposed project (Table 4.6-8), due solely to the increase in soil hauling. As described in Section 4.6.4, total construction emissions are amortized over a 20-year duration and would equate to approximately 303 MTCO₂e per year, which is 94 MTCO₂e per year more than the proposed project. Consistent with industry best practices, amortized emissions are added to operational landside emissions before mitigation in Table 7-6 and operational landside emissions after mitigation in Table 7-7. Note that operation of the proposed project and Alternative 6 are expected to be the same; the only difference herein is the amount of amortized construction emissions (which differs) added to operational emissions (which does not differ) in estimating total project emissions. As shown in Table 7-6, Alternative 6 landside emissions would meet the efficiency target for 2021 after including site design (VMT) reductions, but would fall short of the efficiency target for 2030 and 2050 after including site design (VMT) reductions but prior to mitigation. Therefore, post-2020 GHG emission impacts under Alternative 6 are considered significant. As discussed for the proposed project in Section 4.6.4.3, after implementation of the identified mitigation measures, emissions associated with Alternative 6, similar to the proposed project, would be substantially reduced and would be on a downward trajectory, but would remain significant because there is no certainty that the project's reduced emissions, after mitigation, would represent its fair share of the requisite reductions to achieve statewide post-2020 targets. Because Alternative 6 emissions would be slightly higher than those of the proposed project, the renewable energy project or amount of GHG offsets increases such that, to meet the 2030 target, either option or a combination must achieve a total annual reduction of 3,513 MTCO₂e per year, or 15,739 megawatt-hours per year (MWh/year), which would amount to 70,252 MTCO₂e over 20 years (between 2030 and 2050). To meet the 2050 target, either option or a combination must achieve a total annual reduction of 12,029 MTCO₂e per year or 53,901 MWh/year, which would amount to 445,091 MTCO₂e over 37 years (between 2050 and the end of the lease in 2087). After mitigation, impacts

associated with Alternative 6 would remain significant and unavoidable, similar to the proposed project.

Under cumulative conditions, Alternative 6, like the proposed project, would have the potential to result in a cumulatively considerable contribution of GHG emissions impacts and require the same mitigation measures as identified in Chapter 5, *Cumulative Impacts*. However, similar to the proposed project, impacts would be reduced to less than cumulatively considerable levels with implementation of mitigation measures, while other impacts would remain cumulatively considerable after implementation of mitigation measures, as described in Section 4.6, *Greenhouse Gas Emissions and Climate Change*.

Therefore, impacts on GHG emissions and climate change under Alternative 6 would be slightly greater, but similar to those of the proposed project.

Table 7-5. Estimate of Construction GHG Emissions Under the Below Grade Parking Alternative (total metric tons)

Emission Source	CO₂e
Phase 1- Mobilization and Site Preparation	
Mobilization/Demolition	26
Dewatering/Shoring	22
Phase 2 – Market- Rate Hotel Tower, Meeting Areas, and Parking Structure	
Excavation and Foundation	2,831
Structural Frame	601
Exterior Closure and Roofing	403
Interior Rough-In (Elev./MEP/Framing)	145
Interior Construction/Finishes	261
MEP Systems	289
Phase Completion Work	60
Phase 3 – Lower-Cost Visitor-Serving Hotel	
Foundations	39
Structural Frame	80
Exterior Closure	109
Interior Construction/Finishes	137
Phase Completion Work	14
Phase 4 - Site Work	
Offsite Demolition/Grading/Utilities	191
Site Improvements	218
Phase 5 – Waterside Work	
Marina Construction	630
Total Construction (over 2.5 years)	6,055
Annual Total (Amortized over 20 years)	303
Note: Totals may not add exactly due to rounding.	
Source: Appendix C.	

Table 7-6. Estimate of Alternative 6 Landside GHG Emissions with State Measures (metric tons per year)

Element	2021	2030	2050
Total Operations	13,996	11,981	11,587
<i>Amortized Construction</i>	<i>303</i>	<i>303</i>	<i>303</i>
<i>Reductions</i> <i>VMT Reductions from Site Location and other project features</i>	<i>-2,098</i>	<i>-1,608</i>	<i>-1,482</i>
Total Project Landside	12,171	10,676	10,407
Existing Landside Annual ¹	625	625	625
Net New Over Existing	11,546	10,051	9,783
Service Population (rooms)	1,415	1,415	1,415
Project Efficiency (MT/room)	8.2	7.1	6.9
Significance Threshold (MT/room)	12.9	6.3	1.4
<i>Exceed Target?</i>	<i>No</i>	<i>Yes</i>	<i>Yes</i>

Table 7-7. Estimate of Alternative 6 Landside GHG Emissions after Mitigation (metric tons per year)

Element	2021	2030	2050
Total Operations	13,996	11,981	11,587
<i>Amortized Construction</i>	<i>303</i>	<i>303</i>	<i>303</i>
<i>Reductions</i> ² <i>VMT Reductions from Design</i>	<i>-2,098</i>	<i>-1,608</i>	<i>-1,482</i>
<i>MM-GHG-2/3 CAP and Sustainability Measures</i>	<i>-</i>	<i>-227</i>	<i>-227</i>
<i>MM-GHG-4 PV/Offsets</i>	<i>--</i>	<i>-963</i>	<i>-7,583</i>
Total Project Landside	12,171	9,487	2,598
Existing Landside Annual ³	625	625	625
Net New Over Existing	11,546	8,862	1,973
Service Population (rooms)	1,415	1,415	1,415
Project Efficiency (MT/room)	8.2	6.3	1.4
Significance Threshold (MT/room)	12.9	6.3	1.4
<i>Exceed Target?</i>	<i>No</i>	<i>No</i>	<i>No</i>

7.6.6.7 Hazards and Hazardous Materials

In addition to the subterranean parking garage level, Alternative 6 would include the construction of all of the landside components of the proposed project, including the market-rate hotel tower, lower-cost visitor-serving hotel, retail along the Embarcadero, and public plaza and park areas. Alternative 6 would result in an increased amount of ground-disturbing activities to develop the subterranean parking garage level when compared to the proposed project. Therefore, there is a potential that the construction of the landside portion of this alternative would encounter a greater amount of contaminated soil as compared to the proposed project. However, similar to the proposed project, these impacts would be reduced to less-than-significant levels with the implementation of the same mitigation measures as identified in Section 4.7, *Hazards and Hazardous Materials*. The

construction and operation of the subterranean parking garage would not result in any additional landside hazards and hazardous materials impacts. Therefore, Alternative 6 would result in less-than-significant hazards and hazardous materials impacts that would be slightly greater, but similar to those of the proposed project.

Alternative 6 would result in the same impacts and require the same mitigation measures as identified in Section 4.7, *Hazards and Hazardous Materials*, related to the waterside construction. Consequently, similar to the proposed project, waterside impacts would be significant and unavoidable. The construction and operation of the subterranean parking garage would not result in any additional waterside hazards and hazardous materials impacts.

Furthermore, similar to the proposed project, Alternative 6 could affect the safe and efficient use of the navigable airspace by aircraft or the operation of air navigation facilities due to the height of construction and operational equipment and structures. As identified in Section 4.7, *Hazards and Hazardous Materials*, this could result in a safety hazard for people residing or working within the vicinity of the project site. However, this impact would be reduced to less-than-significant levels with the implementation of the same mitigation measure as identified in Section 4.7, *Hazards and Hazardous Materials*. Therefore, impacts related to air navigation safety hazards under Alternative 6 would be similar to those of the proposed project.

Under cumulative conditions, Alternative 6, for reasons identical to the proposed project, would not result in any cumulatively considerable impacts related to hazards or hazardous materials.

7.6.6.8 Hydrology and Water Quality

Alternative 6 would include the construction of all of the landside components of the proposed project, including the market-rate hotel tower, lower-cost visitor-serving hotel, retail, concrete parking structure, and public plaza and park areas. However, this alternative also includes a subterranean parking garage level that would extend approximately 12 feet below grade. As detailed in Section 4.5, *Geology and Soils*, groundwater is present at depths of approximately 5 to 9 feet below ground surface. As such, there is a potential for groundwater to be encountered during construction of the subterranean parking garage level under Alternative 6, which would require dewatering, which has a potential to result in greater impacts than the proposed project. However, the subterranean parking garage level would be constructed using a bath tub type construction method that involves driving steel sheet piles into the underlying Bay Point Formation, which is an impermeable layer that prevents water intrusion. The parking garage would also be designed to include a complete waterproofing system with a perimeter drain mat and foundation drainage. In addition, trench drains would be located at the parking structure entry/exit to prevent stormwater from entering the structure. Furthermore, the interior of the parking structure would contain a sump pit, pump, and sand oil interceptor to address any unforeseen water intrusion in the event of a 100-year flood event or water line leak. With the incorporation of these design features, the landside components of Alternative 6 would result in less-than-significant operational impacts, similar to the proposed project. As such, when compared to the proposed project, the construction and operations of Alternative 6 would result in similar impacts and would require the implementation of the same mitigation measures as described in Section 4.8, *Hydrology and Water Quality*, to reduce impacts to less-than-significant levels. The construction and operation of the subterranean parking garage would not result in any additional hydrology and water quality impacts. Therefore, impacts on hydrology and water quality under Alternative 6 would be similar to those of the proposed project.

Under cumulative conditions, Alternative 6, for reasons identical to the proposed project, would not result in any cumulatively considerable impacts on hydrology or water quality.

7.6.6.9 Land Use and Planning

Other than the subterranean parking garage level, Alternative 6 would result in the same landside and waterside improvements as those proposed as part of the project. Similar to the proposed project, construction and operation of Alternative 6 would result in the same impacts and require the implementation of the same mitigation measures identified in Section 4.9, *Land Use and Planning*, to reduce impacts to less-than-significant levels. The construction and operation of the subterranean parking garage would not result in any additional land use and planning impacts. Therefore, impacts on land use and planning under Alternative 6 would be similar to those of the proposed project.

Under cumulative conditions, Alternative 6, for reasons identical to the proposed project, would not result in any cumulatively considerable impacts related to land use and planning.

7.6.6.10 Noise and Vibration

Construction

Under Alternative 6, the overall duration and equipment schedule during construction would be the same as that under the proposed project. There would, however, be an increase in hauling activity during Phase 2.1 (*Excavation and Foundation*) under Alternative 6, as additional soil excavation and disposal would be required to make room for the subterranean parking structure, which would result in a slight increase in the duration of this specific construction phase. Nonetheless, the overall construction noise and vibration from the site, which would be dominated by pile driving during Phase 2.1, would not increase when compared to the proposed project. As detailed under Threshold 1 in Section 4.10.6.3 of this EIR, construction of the proposed project would result in exceedances of adopted noise standards during construction. Because Alternative 6 includes all of the components of the proposed project, this alternative would also result in the same impacts as the proposed project and would require the implementation of the same mitigation measures as identified in Section 4.10, *Noise and Vibration*; these measures would not necessarily ensure noise standards would not be exceeded during construction, and impacts would remain significant and unavoidable.

Referring to the traffic memorandum for Alternative 6 (Appendix I-2), the projected daily vehicle trip generation during Phase 2.1 construction, which includes the additional haul trips generated under Alternative 6, would be approximately 24% less than the peak construction trip generation analyzed under the proposed project. As discussed under Threshold 1 of Section 4.10.6.3 of this EIR, the construction traffic noise impact of the peak construction trip generation for the proposed project would be less than significant (with noise increases of less than 0.5 decibel [dB] Community Noise Equivalent Level [CNEL]). As such, because the number of daily construction trips generated during Phase 2.1 under Alternative 6 would be lower than the number of daily trips generated during the peak of construction for the proposed project, construction traffic noise impacts under Alternative 6 would also be less than significant. Alternative 6 would result in an imperceptible change in construction traffic noise levels during construction and resulting noise levels would be less than significant, similar to the proposed project. The construction of the subterranean parking garage would not result in any additional noise and vibration impacts. Therefore, impacts on noise and vibration resources under Alternative 6 would be similar to those of the proposed project.

Under cumulative conditions, construction of Alternative 6, for reasons identical to the proposed project, would have the potential to result in a cumulatively considerable noise increase in excess of established City standards that would be exacerbated by construction activity for related projects. However, as discussed in Chapter 5, *Cumulative Impacts*, similar to the proposed project, this potential cumulative impact would be reduced to less than cumulatively considerable levels with implementation of mitigation measures identified in Section 4.10, *Noise and Vibration*.

Operation

Operational noise sources associated with the parking structure under Alternative 6 would be similar to the proposed project. The addition of mechanical equipment for the parking garage would increase the overall mechanical equipment noise generated by the project and would further contribute to the significant impact already identified for the proposed project in Section 4.10, *Noise and Vibration*. These impacts would be reduced to less-than-significant levels by the same mitigation measure that applies to mechanical equipment for the proposed project as identified in Section 4.10, *Noise and Vibration*.

Moreover, because Alternative 6 includes all of the components of the proposed project, including the various exterior spaces (public plaza and park areas, outdoor dining areas, swimming pools), operation of Alternative 6 also has the potential to result in the same exceedances of adopted noise standards and increase ambient noise levels during outdoor special events as identified in Section 4.10, *Noise and Vibration*, as identified for the proposed project. However, similar to the proposed project, the impact would remain significant and unavoidable under Alternative 6 after implementation of the mitigation measures identified in Section 4.10, *Noise and Vibration*, because ambient noise levels could still increase at nearby sensitive receptors by 5 dB or more. The construction of the subterranean parking garage would not result in any additional noise and vibration impacts. Therefore, impacts on noise and vibration resources under Alternative 6 would be similar to those of the proposed project.

Under cumulative conditions, operation of Alternative 6, for reasons identical to the proposed project, would not result in any cumulatively considerable impacts related to noise and vibration.

7.6.6.11 Public Services and Recreation

Alternative 6 would result in the same number of hotel rooms, retail space, and other elements as the proposed project and would create the same demand on public services. As such, when compared to the proposed project, the construction and operation of Alternative 6 would result in similar impacts and would require the implementation of the same mitigation measures as described in Section 4.11, *Public Services and Recreation*, to reduce impacts to less-than-significant levels. However, similar to the proposed project, impacts for this alternative as they relate to aesthetics, noise, and transportation, circulation, and parking would remain significant and unavoidable for the reasons described in Section 4.1, *Aesthetics and Visual Resources*, Section 4.10, *Noise and Vibration*, and Section 4.12, *Transportation, Circulation, and Parking*. The construction and operation of the subterranean parking garage would not result in any additional public services and recreation impacts. Therefore, impacts on public services and recreation under Alternative 6 would be similar to those of the proposed project.

Under cumulative conditions, Alternative 6, for reasons identical to the proposed project, would not result in any cumulatively considerable impacts on public services or recreation.

7.6.6.12 Transportation, Circulation, and Parking

Construction

In addition to the subterranean parking garage level, Alternative 6 would construct the same number of hotel rooms and the same amount of retail space, conference/ballroom space, public plaza and park areas, and expanded marina as the proposed project. Under Alternative 6, the overall construction schedule would be similar to the proposed project. Construction of Alternative 6 is anticipated to begin in 2018 and would occur over a 24- to 30-month period, ending in 2021 when the project is fully operational. Peak construction is anticipated to occur between May and June of 2020. Construction of the Below Grade Parking Alternative would occur during the Excavation and Foundation phase (Phase 2.1) of the overall project construction schedule. As such, the Excavation and Foundation phase would be the only construction phase that would experience changes in the number of trips associated with Alternative 6. During construction, extensive ground-disturbing activities would be required, including excavation and grading of the entire 5-acre project site. Excavation for the below grade parking garage level would extend to an average depth of approximately 12 feet.

The information provided below is summarized from the *Fifth Avenue Landing – Below Grade Parking Alternative Trip Generation and Parking Analysis* prepared by Chen Ryan Associates dated October 17, 2017 (Appendix K-2). Because of this additional earthwork, additional delivery and haul truck trips would be generated to haul excess soil from the project site when compared to the proposed project. However, there would be no change in the number of construction workers associated with construction of Alternative 6. Under this alternative, it was assumed that all workers would drive individual vehicles to the staging area on Belt Street, and would arrive and depart during the AM and PM peak hours, respectively. Workers would then be transported in shuttles to the project site. It was also assumed that the 85 haul truck trips and 5 delivery trucks/vans would be evenly distributed throughout the 8-hour workday (11.25 trucks each hour, rounded to 12 trucks per hour to be conservative). Table 7-8 displays the projected vehicle trip generation to the staging area during the Excavation and Foundation Phase under Alternative 6.

Table 7-8. Project Construction Trip Generation – Below Grade Parking Alternative

Use	Units	Vehicle Conversion Rate	Rate	Daily Vehicle Trips	AM Peak Hour		PM Peak Hour	
					In	Out	In	Out
Construction Worker Traffic	30	1	2/Worker	60	30	0	0	30
Delivery and Haul Truck Traffic	90	3	2/Truck	540	36	36	36	36
Total				600	66	36	36	66

Source: Appendix I-2

Additionally, similar to the proposed project, Alternative 6 assumes that once all workers arrive to the staging area, shuttles would transport them to the project site via Harbor Drive. Moreover, the same number of delivery and haul trucks that would transport construction material to the staging area was assumed to transport it to the project site. Table 7-9 displays the assumed vehicle trip

generation for the staging area during the peak of project construction for the Excavation and Foundation Phase under Alternative 6.

Table 7-9. Staging Area Trip Generation – Below Grade Parking Alternative

Use	Units	Vehicle Conversion Rate	Rate	Daily Vehicle Trips	AM Peak Hour		PM Peak Hour	
					In	Out	In	Out
Shuttles	2 ¹	1.5	4/Worker	12	3	3	3	3
Delivery and Haul Truck Traffic	103	3	2/Truck	540	36	36	36	36
Total				552	39	39	39	39

Source: Appendix I-2

Notes:

¹ It is assumed that 1 shuttle can accommodate 15 workers

Based on Tables 7-8 and 7-9, construction of the subterranean parking garage level is anticipated to generate approximately 1,152 combined daily trips during the Excavation and Foundation Phase, including 180 trips during the AM and PM peak hours. These trips would be added to the roadway segment of Harbor Drive between Park Boulevard and Sampson Street. The total number of daily vehicle trips generated during of the Excavation and Foundation Phase under Alternative 6 would be less than the 1,524 combined daily trips that would generated during the peak of construction of the proposed project (overlap of Phases 2.2, 2.3, 2.5, 2.6, 2.7, 3.1, 3.2, 3.3, 3.4, and 4.1). Alternative 6 also includes construction of all of the components of the proposed project. Therefore, when compared to the proposed project, Alternative 6 would result in the same construction-related project-level and cumulative impacts and require the implementation of the same mitigation measures identified in Section 4.10, *Transportation, Circulation, and Parking*, and Chapter 5, *Cumulative Impacts*. Similar to the proposed project, implementation of a TDM plan during construction of Alternative 6 would help to reduce potential impacts identified above; however, because the extent to which construction traffic impacts would be reduced by the TDM plan cannot be quantified, it cannot be determined with certainty that the impacts would be reduced to less-than-significant levels. As such, construction traffic-related impacts on study area roadways intersections during both existing plus project and near-term plus project conditions would be significant and unavoidable under Alternative 6, similar to the proposed project.

In addition, similar to the proposed project, construction of Alternative 6 would result in a temporary significant impact on public access along the Embarcadero Promenade, which would be reduced to a less-than-significant impact with the implementation of the same mitigation measure identified in Section 4.10, *Transportation, Circulation, and Parking*.

Furthermore, similar to the proposed project, construction of Alternative 6 would result in an insufficient parking supply, as the project site would not be able to accommodate parking for construction vehicles due to onsite staging of materials and construction equipment, as well as the phasing of construction that would be occurring. In addition, existing parking would be removed from service once onsite grading and demolition activities begin. Implementation of the same mitigation measure as described in Section 4.10, *Transportation, Circulation, and Parking*, would reduce impacts related to the loss of parking during construction, but not to a level considered less than significant because existing parking at the project site would not be accessible by waterfront

visitors. Therefore, construction-related parking impacts would be significant and unavoidable under Alternative 6, similar to the proposed project.

Operation

Project operations under Alternative 6 would be similar to the proposed project. Other than the subterranean parking garage level, Alternative 6 would include the same components of the proposed project, including the same number of hotel rooms, square footage of retail space, and number of marina slips. As such, operation of Alternative 6 would generate the same number of daily trips (8,486 daily trips) that would be generated by the proposed project. Consequently, when compared to the proposed project, Alternative 6 would result in the same operational-related project-level and cumulative transportation and circulation impacts and require the implementation of the same mitigation measures identified in Section 4.10, *Transportation, Circulation, and Parking*, and Chapter 5, *Cumulative Impacts*. For the reasons described in Section 4.10, *Transportation, Circulation, and Parking*, and Chapter 5, *Cumulative Impacts*, similar to the proposed project, transportation and circulation impacts would remain significant and unavoidable under Alternative 6.

Under Alternative 6, a total of 478 parking spaces would be provided in a concrete parking structure that includes a subterranean parking level. The P1 level would include 190 standard stall spaces, 9 ADA spaces, and 64 valet spaces. The P2 level would include 167 standard spaces and 48 valet spaces. Operation of Alternative 6, including the proposed market-rate hotel tower, lower-cost visitor-serving hotel, retail space, marina, and public plaza and park areas, would require 472 parking spaces. Under the proposed project, 263 parking spaces would be provided in a ground-level parking garage, resulting in a deficiency of 209 parking spaces. As such, with the development of a subterranean parking garage level under Alternative 6, all of the parking demand generated during operations would be accommodated on site, resulting in a surplus of 6 parking spaces during the highest demand period. Consequently, implementation of Alternative 6 would reduce the significant and unavoidable project-level and cumulative parking impact that would occur under the proposed project to less-than-significant levels, thereby eliminating the need for a parking management plan as required by the mitigation measure described in Section 4.10, *Transportation, Circulation, and Parking*, and Chapter 5, *Cumulative Impacts*.

Overall, Alternative 6 would result in similar project-level and cumulative impacts on transportation and circulation, and substantially reduced impacts on parking during operations compared to the proposed project.

7.6.6.13 Tribal Cultural Resources

Alternative 6 would require an increased amount of ground disturbance and excavation at the project site compared with the proposed project to accommodate the subterranean parking garage level. However, impacts under Alternative 6 would be less than significant, similar to the proposed project for the reasons identified in Section 4.13, *Tribal Cultural Resources*. The construction and operation of the subterranean parking garage would not result in any additional tribal cultural resources impacts. Therefore, impacts on tribal cultural resources under Alternative 6 would be similar to those of the proposed project.

Under cumulative conditions, Alternative 6, for reasons identical to the proposed project, would not result in any cumulatively considerable impacts on tribal cultural resources.

7.6.6.14 Utilities and Energy Use

Under Alternative 6, demand for water and the generation of wastewater would increase over existing conditions, but would be similar to the demand of the proposed project. Under Alternative 6, all of the components of the proposed project would be constructed, including the proposed market-rate hotel tower, lower-cost, visitor-serving hotel, retail space, marina, and public plaza and park areas. As such, when compared to the proposed project, the construction and operations of Alternative 6 would result in similar impacts and would require the implementation of the same mitigation measures as described in Section 4.14, *Utilities and Energy Use*, to reduce impacts to less-than-significant levels. The construction and operation of the subterranean parking garage would not result in any additional utilities and energy use impacts. Therefore, impacts on utilities and energy use under Alternative 6 would be similar to those of the proposed project.

Under cumulative conditions, Alternative 6, like the proposed project, would result in cumulatively considerable utilities and energy impacts, as described in Chapter 5, *Cumulative Impacts*. With implementation of the same mitigation measures identified in Chapter 5, *Cumulative Impacts*, impacts would be reduced to less-than-significant levels, similar to the proposed project.

7.6.6.15 Relationship to Project Objectives and Summary of Impacts

The Below Grade Parking Alternative would meet all of the basic project objectives. Specifically, it would provide a full-service hotel appropriate for first-class convention operations, provide lower-cost visitor-serving accommodations at the site, provide infill development on District tidelands that is compatible with surrounding uses, increase activation along the waterfront by providing public plaza and park areas, and provide new public vista points. Therefore, Alternative 6 would generally meet all the basic project objectives, although whether this alternative would meet the economic objectives of Objective #3 involves economic and policy considerations within the discretion of the Board. Moreover, this alternative would reduce the significant and unavoidable parking impact associated with the proposed project to less-than-significant levels because it would provide sufficient parking on site for project operations. However, this alternative would result in slightly greater, but still less than significant, impacts (after mitigation) associated with air quality emissions, cultural resources, geology and soils, GHG emissions and climate change, and hazards and hazardous materials.

7.6.7 Environmentally Superior Alternative

Pursuant to CEQA, the EIR is required to identify the environmentally superior alternative. Although the No Project/No Build Alternative (Alternative 1) reduces the greatest number of significant impacts, CEQA requires that when the environmentally superior alternative is the No Project/No Build Alternative, another alternative should be identified. The No Project/Port Master Plan Consistency Alternative (Alternative 2) reduces the second-largest number of significant impacts; however, this alternative would not achieve most of the project objectives and is also a No Project Alternative. Considering the importance of parking in the area, the Below Grade Parking Alternative (Alternative 6) would add additional parking on site and meet all the basic project objectives. However, this alternative would result in similar and, in some cases, greater impacts than the proposed project. Therefore, the No Net New Marina Alternative (Alternative 3) is considered the environmentally superior alternative (see Table 7-10) because it would reduce the greatest number of impacts while still achieving most of the project objectives (see Table 7-11). Alternative 3 would eliminate the marina expansion, which would avoid all of the waterside impacts that would result

under the proposed project; the alternative would also result in reduced impacts on biological resources, GHG emissions, hazardous materials, hydrology and water quality, and noise and vibration. In addition, Alternative 3 would meet the project objectives with the exception of Objective #4 because the project would not include an expanded marina. However, all other project components would be incorporated, including an infill development that provides a full-service hotel that is comparable in size to adjacent hotels, a lower-cost visitor-serving hotel, plaza and park areas, restaurant and retail space, a water transportation center, improved links to the waterfront, and sustainable development features (see Table 7-11).

Table 7-10. Summary Impact Comparison of Proposed Project Alternatives

Environmental Resource	Proposed Project Determination	No Project/ No Build (Alternative 1)	No Project/Port Master Plan Consistency Alternative (Alternative 2)	No Net New Marina Alternative (Alternative 3)	Phase I Only Marina Alternative (Alternative 4)	Reduced Density Alternative (Alternative 5)	Below Grade Parking Alternative (Alternative 6)
Aesthetics and Visual Resources	Significant and Unavoidable	-2	-2	0	0	0	0
Air Quality and Health Risk	Less than Significant w/Mitigation	-2	-1	0	0	0	+1
Biological Resources	Less than Significant w/Mitigation	-2	-1	-1	-1	0	0
Cultural Resources	Less than Significant w/Mitigation	-2	0	0	0	0	+1
Geology and Soils	Less than Significant w/Mitigation	-2	0	0	0	0	+1
Greenhouse Gas Emissions and Climate Change	Significant and Unavoidable	-2	-2	-2	-1	-1	+1
Hazards and Hazardous Materials	Significant and Unavoidable	-2	-1	-1	-1	0	+1
Hydrology and Water Quality	Less than Significant w/Mitigation	-2	-1	-2	-1	0	0
Land Use and Planning	Less than Significant w/Mitigation	-2	0	0	0	0	0
Noise and Vibration	Significant and Unavoidable	-2	0	-1	-1	0	0
Public Services and Recreation	Significant and Unavoidable	-2	0	0	0	0	0
Transportation, Circulation, and Parking	Significant and Unavoidable	-2	-1	0	0	-2	-1
Tribal Cultural Resources	Less than Significant	0	0	0	0	0	0
Utilities and Energy Use	Less than Significant w/Mitigation	-2	0	0	0	0	0
Total¹	--	-26	-9	-7	-5	-3	+4

-2= Substantially Reduced; -1= Slightly Reduced; 0 = Similar; +1 = Slightly Greater; +2 = Substantially Greater

¹ Lowest score is environmentally superior

Table 7-11. Summary Project Objective Comparison of Proposed Project Alternatives

Project Objective	No Project/ No Build (Alternative 1)	No Project/Port Master Plan Consistency Alternative (Alternative 2)	No Net New Marina Alternative (Alternative 3)	Phase I Only Marina Alternative (Alternative 4)	Reduced Density Alternative (Alternative 5)	Below Grade Parking Alternative (Alternative 6)
1. Provide full service hotel	No	No	Yes	Yes	Partially	Yes
2. Provide lower-cost visitor-serving hotel	No	No	Yes	Yes	Partially	Yes
3. Provide infill development, maximum hotel room revenue, restaurant and retail sales	No	Partially	Yes	Yes	Partially	Yes
4. Increase activation on site by providing public park, plaza space, retail, expanded marina, water transportation center	No	Partially	No	Partially	Yes	Yes
5. Provide new public vista opportunities of San Diego Bay from vantage points	No	Yes	Yes	Yes	Yes	Yes
6. Improve access to the waterfront and Embarcadero Promenade by providing wayfinding signage	No	Yes	Yes	Yes	Yes	Yes
7. Pursue LEED Certification	No	Yes	Yes	Yes	Yes	Yes

Chapter 8

List of Preparers and Agencies Consulted

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8.5 Marine Biological Resources Report—Marine Taxonomic Services

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8.7 Agencies, Organizations, and Persons Consulted

Agency/Company Name	Contact
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State of California, Governor's Office of Planning and Research, State Clearinghouse and Planning Unit (SCH)	N/A
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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.

Signature:  Date: December 7, 2017
Charlie Richmond, Principal, ICF

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