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Wetland Mitigation Bank at Pond 20 and Port Master Plan Amendment

Draft Environmental Impact Report

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VOLUME I of IV



Prepared For:
San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101

Draft Environmental Impact Report

Wetland Mitigation Bank at Pond 20 and Port Master Plan Amendment

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Table of Contents

Executive Summary	ES-1
Introduction.....	ES-1
Project Description.....	ES-1
Areas of Known Controversy and Issues Raised by Agencies and the Public	ES-4
Issues to be Resolved	ES-4
1 Introduction.....	1-1
1.1 Project Overview	1-1
1.2 Purpose of CEQA.....	1-2
1.3 Intended Uses of the Environmental Impact Report	1-2
1.3.1 Agencies Expected to Use this Environmental Impact Report	1-2
1.3.2 Project and Program Level CEQA Analysis	1-4
1.4 Scope and Content of the Environmental Impact Report	1-5
1.4.1 Comments Received in Response to the Notice of Preparation.....	1-6
1.5 Draft Environmental Impact Report Processing.....	1-10
1.6 Organization of the Draft Environmental Impact Report	1-10
2 Project Description	2-1
2.1 Project Location	2-1
2.2 Environmental Setting	2-7
2.2.1 Project Background	2-7
2.2.2 Project Site	2-12
2.2.3 Surrounding Land Uses	2-19
2.3 Project Objectives	2-19
2.4 Project Characteristics	2-20
2.4.1 Wetland Mitigation Bank at Pond 20	2-24
2.4.2 Operation, Monitoring, and Maintenance	2-36
2.4.3 Port Master Plan Amendment	2-38
2.5 Required Project Approvals	2-39
2.5.1 San Diego Unified Port District.....	2-39
2.5.2 Discretionary Actions and Approvals by Other Agencies.....	2-39
3 Introduction to Environmental Analysis.....	3-1
3.1 Aesthetics.....	3-1-1
3.1.1 Overview	3-1-1
3.1.2 Existing Conditions.....	3-1-1
3.1.3 Applicable Laws, Regulations, and Policies.....	3-1-10
3.1.4 Environmental Impacts.....	3-1-12
3.2 Air Quality.....	3-2-1
3.2.1 Overview	3-2-1
3.2.2 Existing Conditions.....	3-2-1
3.2.3 Applicable Laws, Regulations, and Policies.....	3-2-5
3.2.4 Environmental Impacts.....	3-2-12
3.3 Biological Resources.....	3-3-1
3.3.1 Overview	3-3-1
3.3.2 Existing Conditions.....	3-3-1
3.3.3 Applicable Laws, Regulations, and Policies.....	3-3-23

Table of Contents

Draft EIR | Wetland Mitigation Bank at Pond 20 and Port Master Plan Amendment

- 3.3.4 Environmental Impacts.....3.3-31
- 3.4 Cultural Resources.....3.4-1
 - 3.4.1 Overview3.4-1
 - 3.4.2 Historic and Cultural Background Summary3.4-1
 - 3.4.3 Existing Conditions.....3.4-6
 - 3.4.4 Applicable Laws, Regulations, and Policies.....3.4-10
 - 3.4.5 Environmental Impacts.....3.4-14
- 3.5 Energy3.5-1
 - 3.5.1 Overview3.5-1
 - 3.5.2 Existing Conditions.....3.5-1
 - 3.5.3 Applicable Laws, Regulations, and Policies.....3.5-2
 - 3.5.4 Environmental Impacts.....3.5-4
- 3.6 Geology and Soils3.6-1
 - 3.6.1 Overview3.6-1
 - 3.6.2 Existing Conditions.....3.6-1
 - 3.6.3 Applicable Laws, Regulations, and Policies.....3.6-8
 - 3.6.4 Environmental Impacts.....3.6-10
- 3.7 Greenhouse Gas Emissions3.7-1
 - 3.7.1 Overview3.7-1
 - 3.7.2 Existing Conditions.....3.7-1
 - 3.7.3 Applicable Laws, Regulations, and Policies.....3.7-4
 - 3.7.4 Environmental Impacts.....3.7-9
- 3.8 Hazards and Hazardous Materials.....3.8-1
 - 3.8.1 Overview3.8-1
 - 3.8.2 Existing Conditions.....3.8-1
 - 3.8.3 Applicable Laws, Regulations, and Policies.....3.8-16
 - 3.8.4 Environmental Impacts.....3.8-21
- 3.9 Hydrology and Water Quality3.9-1
 - 3.9.1 Overview3.9-1
 - 3.9.2 Terminology.....3.9-1
 - 3.9.3 Existing Conditions.....3.9-2
 - 3.9.4 Applicable Laws, Regulations, and Policies.....3.9-11
 - 3.9.5 Environmental Impacts.....3.9-24
- 3.10 Land Use and Planning3.10-1
 - 3.10.1 Overview3.10-1
 - 3.10.2 Existing Conditions.....3.10-1
 - 3.10.3 Applicable Laws, Regulations, and Policies.....3.10-2
 - 3.10.4 Environmental Impacts.....3.10-6
- 3.11 Noise.....3.11-1
 - 3.11.1 Overview3.11-1
 - 3.11.2 Acoustic and Vibration Terminology.....3.11-1
 - 3.11.3 Existing Conditions.....3.11-3
 - 3.11.4 Applicable Laws, Regulations, and Policies.....3.11-4
 - 3.11.5 Environmental Impacts.....3.11-14
- 3.12 Public Services3.12-1
 - 3.12.1 Overview3.12-1
 - 3.12.2 Existing Conditions.....3.12-1
 - 3.12.3 Applicable Laws, Regulations, and Policies.....3.12-3
 - 3.12.4 Environmental Impacts.....3.12-5
- 3.13 Transportation.....3.13-1
 - 3.13.1 Overview3.13-1
 - 3.13.2 Existing Conditions.....3.13-1



3.13.3	Applicable Laws, Regulations, and Policies.....	3.13-3
3.13.4	Environmental Impacts.....	3.13-6
3.14	Tribal Cultural Resources.....	3.14-1
3.14.1	Overview.....	3.14-1
3.14.2	Existing Conditions.....	3.14-1
3.14.3	Applicable Laws, Regulations, and Policies.....	3.14-2
3.14.4	Environmental Impacts.....	3.14-5
3.15	Utilities and Service Systems.....	3.15-1
3.15.1	Overview.....	3.15-1
3.15.2	Existing Conditions.....	3.15-1
3.15.3	Applicable Laws, Regulations, and Policies.....	3.15-8
3.15.4	Environmental Impacts.....	3.15-10
4	Cumulative Impacts.....	4-1
4.1	Overview.....	4-1
4.2	Cumulative Methodology.....	4-1
4.3	Cumulative Impact Analysis.....	4-9
4.3.1	Aesthetics.....	4-9
4.3.2	Air Quality.....	4-10
4.3.3	Biological Resources.....	4-11
4.3.4	Cultural Resources.....	4-12
4.3.5	Energy.....	4-14
4.3.6	Geology and Soils.....	4-15
4.3.7	Greenhouse Gas Emissions.....	4-16
4.3.8	Hazards and Hazardous Materials.....	4-17
4.3.9	Hydrology and Water Quality.....	4-19
4.3.10	Land Use and Planning.....	4-22
4.3.11	Noise and Vibration.....	4-23
4.3.12	Public Services.....	4-24
4.3.13	Transportation.....	4-25
4.3.14	Tribal Cultural Resources.....	4-27
4.3.15	Utilities and Service Systems.....	4-27
5	Additional Consequences of Project Implementation.....	5-1
5.1	Overview.....	5-1
5.2	Significant Irreversible Environmental Changes.....	5-1
5.2.1	Project Level – Wetland Mitigation Bank.....	5-1
5.2.2	Program Level – Parcels A, B, and C Port Master Plan Amendment.....	5-2
5.3	Growth-Inducing Impacts.....	5-2
5.3.1	Project Level – Wetland Mitigation Bank.....	5-2
5.3.2	Program Level – Parcels A, B, and C Port Master Plan Amendment.....	5-3
5.4	Effects Found Not to be Significant.....	5-3
5.4.1	Aesthetics.....	5-3
5.4.2	Agriculture and Forestry Resources.....	5-4
5.4.3	Air Quality.....	5-4
5.4.4	Biological Resources.....	5-4
5.4.5	Energy.....	5-5
5.4.6	Geology and Soils.....	5-5
5.4.7	Hazards and Hazardous Materials.....	5-6
5.4.8	Hydrology and Water Quality.....	5-7
5.4.9	Land Use and Planning.....	5-8
5.4.10	Mineral Resources.....	5-8
5.4.11	Population and Housing.....	5-9
5.4.12	Public Services.....	5-9

Table of Contents

5.4.13 Recreation5-11

5.4.14 Transportation5-11

5.4.15 Utilities and Service Systems.....5-12

5.4.16 Wildfire5-12

6 Alternatives to the Proposed Project.....6-1

6.1 Overview6-1

6.2 Requirements for Alternatives Analysis6-1

6.3 Selection of Alternatives6-2

6.4 Alternatives Considered6-2

6.4.1 Alternatives Considered but Rejected.....6-2

6.4.2 Alternatives Selected for Analysis.....6-3

6.5 Analysis of Alternatives6-4

6.5.1 Alternative 1: No Project/No Wetland Mitigation Bank or Port Master Plan
Amendment Alternative6-4

6.5.2 Alternative 2: Wetland Mitigation Bank and No Commercial Development on
Parcels A, B, and C6-8

6.5.3 Alternative 3: Wetland Mitigation Bank, Commercial Recreation on Parcels B
and C, and Open Space on Parcel A6-16

6.6 Environmentally Superior Alternative6-26

7 List of Preparers and Agencies Consulted.....7-1

7.1 Lead Agency – San Diego Unified Port District7-1

7.1.1 Planning and Green Port.....7-1

7.1.2 Project Management Consultant – Ascent Environmental.....7-1

7.2 EIR Preparation – HDR, Inc.7-1

7.3 Technical Reports7-2

7.3.1 Traffic Report – Chen Ryan Associates7-2

7.4 Agencies, Organizations, and Persons Consulted.....7-2

8 References8-1

Figures

Figure 2-1. Regional Location and Project Vicinity2-3

Figure 2-2. Project Site Characteristics2-5

Figure 2-3. Pond 20 Boundary2-9

Figure 2-4. Representative Site Photos Locations2-14

Figure 2-5. Location 1: Berm Breach Location and Confluence of the Otay River and Otay River
Tributary (North)2-16

Figure 2-6. Location 2: Existing Perimeter Berm, Nestor Creek, and Parcel C (North).....2-16

Figure 2-7. Location 3: Parcel B (South).....2-17

Figure 2-8. Location 4: Southwest Corner of Bank Site inside Existing Berm (North).....2-17

Figure 2-9. Location 5: Northwest Corner of Bank Site South of Berm Breach Location (South)2-18

Figure 2-10. Location 6: North Edge of Parcel B (Northwest)2-18

Figure 2-11. Primary Project Components.....2-22

Figure 2-12. Preliminary Design Plan2-26

Figure 2-13. Typical Wetland Section2-33

Figure 3.1-1. View Point Photo Locations3.1-5



Figure 3.1-2. Location 1a: Bayshore Bikeway Village (East).....3.1-7

Figure 3.1-3. Location 1b: Bayshore Bikeway Village (Southeast).....3.1-7

Figure 3.1-4. Location 1c: Bayshore Bikeway Village (South).....3.1-8

Figure 3.1-5. Location 2a: Palm Avenue (North)3.1-8

Figure 3.1-6. Location 2b: Palm Avenue (Northeast)3.1-9

Figure 3.1-7. Location 3. Otay Valley Regional Park/Otay River Pump Station (South/Southwest)3.1-9

Figure 3.3-1. Vegetation Communities3.3-3

Figure 3.3-2. United States Army Corps of Engineers Jurisdictional Areas3.3-19

Figure 3.3-3. California Department of Fish and Wildlife and California Coastal Commission
Jurisdictional Areas3.3-21

Figure 3.6-1. Geological Hazards in the Project Vicinity.....3.6-5

Figure 3.8-1. Contamination Sites Listed on Hazardous Materials Database3.8-5

Figure 3.8-2. Soil Assessment Report Sampling Locations.....3.8-9

Figure 3.9-1. Existing Receiving Water Bodies.....3.9-3

Figure 3.9-2. Federal Emergency Management Agency Flood Zone Map.....3.9-7

Figure 3.9-3. Existing Conditions 100-Year Storm Event Flood Stages.....3.9-9

Figure 3.9-4. 100-Year Storm Event Velocities of Existing and Project Conditions3.9-32

Figure 3.9-5. Difference in 100-Year Storm Event Velocities between Existing and Project
Conditions3.9-34

Figure 3.9-6. Maximum Flood Water Levels During 100-Year Storm Event3.9-42

Figure 3.9-7. Modeled Conditions Maximum Flood Water Extent at Bayside Park During 100-Year
Storm Event.....3.9-44

Figure 3.9-8. Modeled Conditions Maximum Flood Water Extent at Bayside Park and Mobil Parks
During 10-Year Storm Event3.9-48

Figure 3.10-1. Sea Level Rise Flood Extent at the Project Site under Existing Conditions3.10-37

Figure 3.11-1. Relative Loudness3.11-2

Figure 3.11-2. Land Use – Noise Compatibility Guidelines3.11-9

Figure 3.15-1. Utilities in the Project Vicinity.....3.15-5

Figure 4-1. Cumulative Project Locations4-7

Tables

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures ES-5

Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures ES-42

Table 1-1. Project Approvals and Permits 1-3

Table 1-2. Notice of Preparation Comment Letters 1-6

Table 2-1. Project Site Parcels2-12

Table 2-2. Proposed Construction Schedule2-36

Table 2-3. Construction Equipment and Duration of Use2-36

Table 2-4. Consultation and Permitting Requirements2-39

Table 3.2-1. Ambient Air Quality Monitoring Concentrations.....3.2-2

Table 3.2-2. State and Federal Criteria Air Pollutant Standards, Effects, and Sources3.2-6

Table 3.2-3 San Diego Air Pollution Control District Pollution Thresholds for Stationary Sources3.2-13

Table 3.2-4. Peak Day Construction Emissions.....3.2-17

Table 3.2-5. Annual Construction Emissions3.2-17

Table 3.2-6. Program Level – Peak Day Construction Emissions3.2-19

Table of Contents

Draft EIR | Wetland Mitigation Bank at Pond 20 and Port Master Plan Amendment

Table 3.2-7. Program Level - Annual Construction Emissions3.2-19

Table 3.2-8. Program Level – Peak Day Operation Emissions3.2-20

Table 3.2-9. Program Level – Annual Operation Emissions.....3.2-21

Table 3.3-1. Special Status Plants with Potential to Occur in the Study Area.....3.3-9

Table 3.3-2. Special Status Wildlife Species Observed or Potential to Occur.....3.3-10

Table 3.3-3. Suitable Habitat for Federally and State Listed Avian Species within the Study Area3.3-14

Table 3.3-4. Suitable Habitat for Burrowing Owl within the Study Area3.3-15

Table 3.3-5. Summary of United States Army Corps of Engineers Waters of the United States
within the Study Area3.3-16

Table 3.3-6. California Coastal Commission Wetlands within the Study Area3.3-17

Table 3.3-7. Potential California Department of Fish and Wildlife Jurisdictional Areas within the
Study Area.....3.3-18

Table 3.3-8. Integrated Natural Resources Management Plan Objectives Relative to the Project.....3.3-30

Table 3.3-9. Suitable Habitat for Federally and State Listed Avian Species Impacted within the
Bank Site and Berm Breach Site.....3.3-36

Table 3.3-10. Suitable Habitat for Federally and State Listed Avian Species within Parcels A, B,
and C3.3-40

Table 3.5-1. Project Level Construction Energy Consumption3.5-6

Table 3.5-2. Program Level Construction Energy Consumption3.5-7

Table 3.5-3. Program-Level Operational Energy Consumption (Annual)3.5-8

Table 3.5-4. Proposed Project Comparison to CEQA Guidelines Appendix F3.5-9

Table 3.7-1. Global Warming Potential of Greenhouse Gases.....3.7-2

Table 3.7-2. Project Construction Greenhouse Gas Emissions3.7-10

Table 3.7-3. Program Level – Construction Greenhouse Gas Emissions3.7-12

Table 3.7-4. Program Level – Projected Annual Greenhouse Gas Emissions.....3.7-13

Table 3.7-5. Project Level – Consistency with Applicable Climate Action Plan Measures.....3.7-17

Table 3.7-6. Program Level – Consistency with Applicable Climate Action Plan Measures3.7-18

Table 3.8-1. Off-site Contamination Sites Listed on Hazardous Materials Databases.....3.8-2

Table 3.8-2. Environmental Analytical Results for On-site Soil Reuse (Metals, Total Petroleum
Hydrocarbons, and Organics)3.8-11

Table 3.8-3. Environmental Analytical Results for Off-site Soil Export (Metals, Total Petroleum
Hydrocarbons, and Organics)3.8-13

Table 3.9-1. Beneficial Uses of Project Affected Surface Water3.9-14

Table 3.9-2. Minimum Best Management Practices for Construction Sites3.9-17

Table 3.9-3. Best Management Practices for Commercial and Industrial Facilities3.9-20

Table 3.9-4. Source Control and Site Design Requirements for All Development Projects3.9-21

Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations ..3.10-9

Table 3.10-2. Project Consistency with Applicable Sea Level Rise Policies3.10-39

Table 3.11-1. Existing Traffic Volumes3.11-4

Table 3.11-2. Summary of United States Environmental Protection Agency Cause and Effect
Noise Levels3.11-5

Table 3.11-3. California Department of Health Services Noise Guidelines3.11-6

Table 3.11-4. Municipal Code Noise Limits3.11-11

Table 3.11-5. Traffic Noise Significance Thresholds3.11-12

Table 3.11-6. City of San Diego Noise Land Use Compatibility Chart3.11-13

Table 3.11-7. Logarithmic Nature of Sound.....3.11-15



Table 3.11-8. California Department of Transportation Vibration Damage Potential Threshold Criteria	3.11-15
Table 3.11-9. California Department of Transportation Guideline Vibration Annoyance Potential.....	3.11-16
Table 3.11-10. Wetland Mitigation Bank Construction Noise Levels by Phase.....	3.11-18
Table 3.11-11. Future Commercial Development Construction Noise Levels by Phase.....	3.11-21
Table 3.11-12. Existing with Program Level Traffic Volumes	3.11-22
Table 3.11-13. Vibration Source Levels for Construction Equipment.....	3.11-25
Table 3.13-1. Bus Stops in the Project Vicinity	3.13-2
Table 3.13-2. Minimum and Maximum Two-Way Traffic Curb Cuts Widths	3.13-5
Table 3.13-3. Program-Level Trip Generation	3.13-7
Table 3.13-4. Proposed Project's Land Use Impact Threshold	3.13-9
Table 3.13-5. Vehicle Miles Traveled Analysis Results Impact Analysis.....	3.13-13
Table 3.13-6. Transportation Demand Management Measure Feasibility and Potential Reduction ..	3.13-14
Table 3.15-1. Utility Service Providers	3.15-1
Table 3.15-2. City of San Diego Water Demand vs Supply in Acre-Feet per Year (Normal Year, Single Dry Year, Multiple Dry Years)	3.15-2
Table 3.15-3 Active San Diego County Municipal Solid Waste Landfills	3.15-7
Table 4-1. Cumulative Project List	4-3
Table 6-1. Attainment of Project Objectives – Alternative 1 No Project/No Wetland Mitigation Bank or Port Master Plan Amendment Alternative	6-7
Table 6-2. Attainment of Project Objectives – Alternative 2 Wetland Mitigation Bank and No Commercial Development on Parcels A, B, and C	6-15
Table 6-3. Vehicle Miles Traveled Analysis Results for Alternative 3.....	6-23
Table 6-4. Attainment of Project Objectives – Alternative 3 Wetland Mitigation Bank, Commercial Recreation on Parcels B and C, and Open space on Parcel A.....	6-25
Table 6-5. Comparison of Alternative Impacts on Proposed Project.....	6-27

Appendices

Appendix A. Notice of Preparation/Initial Study and NOP Comment Letters
Appendix B. Proposed Port Master Plan Amendment
Appendix C. South San Diego Bay Wetland Mitigation Bank Prospectus
Appendix D. Air Quality and Greenhouse Gas Emissions Study
Appendix E. Biological Technical Report
Appendix F. Cultural Resource Report
Appendix G. Energy Technical Memorandum
Appendix H. Soil Assessment Report for the Salt Pond 20
Appendix I. Limited Geotechnical Investigation for the San Diego Wildlife Refuge Pond 20 Mitigation
Appendix J. Phase I Environmental Site Assessment
Appendix K. Wetland Restoration of Salt Pond 20 Hydrodynamic Modeling Report
Appendix L. Stormwater Quality Management Plan Applicability Form
Appendix M. Noise and Vibration Report
Appendix N1. Transportation Impact Study
Appendix N2. Transportation Memorandum

Acronyms

°C	Celsius
°F	Fahrenheit
AB	assembly bill
ABM	Activity Based Model
ACHP	Advisory Council on Historic Preservation
AFY	acre feet year
ASTM	American Society for Testing and Materials
BAU	business as usual
BEI	bank enabling instrument
bgs	below ground surface
BMP	best management practices
BPC	Board of Port Commissioners
CAAQS	California Ambient Air Quality Standards
CAL Fire	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Cal/OSHA	California Division of Occupational Safety and Health
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CAP	Climate Action Plan
CBC	California Building Code
CCA	California Coastal Act
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CFR	Code of Federal Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CH ₄	methane
CLOMR	Conditional Letter of Map Revision
CNEL	community noise equivalent level
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalents
CRHR	California Register of Historical Resources
CRMMP	Cultural Resource Mitigation and Monitoring Plan
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dB	decibels
dBA	A-weighted decibels
DEH	Department of Environmental Health
DOT	Department of Transportation
DTSC	Department of Toxic Substances Control
EDF	Economic Development Fund
EFH	essential fish habitat
EIR	environmental impact report
EIS	environmental impact statement



EO	Executive Order
EPA	Environmental Protection Agency
ERL	effects range low
ESA	environmental site assessment
ESHA	environmentally sensitive habitat areas
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FONSI	Finding of No Significant Impact
FR	Federal Register
FTA	Federal Transit Administration
GC	Government Code
GHG	greenhouse gas
GPS	global positioning system
GWP	global warming potential
HA	hand auger
HALS	Historic American Landscapes Survey
HFC	Hydrofluorocarbons
HMBP	Hazardous Materials Business Plan
HMD	Hazardous Materials Division
HU	hydrologic units
I	Interstate
IBFD	Imperial Beach Fire Department
INRP	Integrated Natural Resources Management Plan
IRT	interagency review team
IS	Initial Study
ITP	Incidental Take Permit
IWMA	Integrated Waste Management Act
JRMP	Jurisdictional Runoff Management Program
L_{eq}	Equivalent sound level
L_{dn}	Day-night average noise level
L_{max}	Maximum sound level
LID	low impact development
mg/kg	milligram/kilogram
mgd	million gallons per day
MHPA	Multi-Habitat Planning Area
MLLW	mean lower low water
MM	mitigation measure
MS4	Municipal Separate Storm Sewer Systems
MSCP	Multiple Species Conservation Program
MT	metric tons
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAVD88	North American Vertical Datum of 1988
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
NOI	Notice of Intent
NOP	Notice of Preparation

Table of Contents

Draft EIR | Wetland Mitigation Bank at Pond 20 and Port Master Plan Amendment

NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Properties
NWR	National Wildlife Refuge
O ₃	ozone
OHP	Office of Historic Preservation
OPC	Ocean Protection Council
OPR	Office of Planning and Research
ORERP	Otay River Estuary Restoration Project
OSHA	Occupational Safety and Health Administration
Pb	lead
PDP	priority development projects
PLWTP	Point Loma Wastewater Treatment Plant
PM ₁₀	particles of 10 micrometers and smaller
PM _{2.5}	particles of 2.5 micrometers and smaller
PMP	Port Master Plan
PMPA	Port Master Plan Amendment
PMPU	Port Master Plan Update
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
PUD	Public Utilities Department
RAQS	Regional Air Quality Strategy
RCRA	Resource Conservation and Recovery Act of 1976
REC	Recognized Environmental Conditions
rms	root mean square
ROD	Record of Decision
ROG	reactive organic gases
ROW	right-of-way
RPS	Renewables Portfolio Standard
RSL	Regional Screening Levels
RWQCB	Regional Water Quality Control Board
SAM	Site Assessment and Mitigation
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCIC	South Coast Information Center
SDG&E	San Diego Gas and Electric
SDAB	San Diego Air Basin
SDACP	San Diego County Air Pollution Control District
SDFD	San Diego Fire-Rescue Department
SF ₆	sulfur hexafluoride
SHA	sensitive habitat area
SHPO	State Historic Preservation Officer
SIP	state implementation plans
SO ₂	sulfur dioxide
SOI	Secretary of Interior
SPCC	Spill Prevention Control and Countermeasure
SR	State Route
SSL	Soil Screening Levels
SVOC	semi-volatile organic compounds
SWPPP	Storm Water Pollution Prevention Plan
SWQMP	Stormwater Quality Management Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCR	Tribal Cultural Resources
TDM	Transportation Demand Management



TMDL	Total Maximum Daily Load
TPH	total petroleum hydrocarbons
U.S.	United States
UBC	Uniform Building Code
USC	United States Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Plan Act
VMT	Vehicle Miles Traveled
VOC	volatile organic compounds
WEAP	Worker Environmental Awareness Program
WOS	Waters of the State
WOUS	Waters of the United States
WSA	water supply assessments
WSC	Western Salt Company
WQIP	Watershed Quality Improvement Plan

Table of Contents

Draft EIR | Wetland Mitigation Bank at Pond 20 and Port Master Plan Amendment

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Executive Summary

Introduction

The San Diego Unified Port District (District) is proposing the Wetland Mitigation Bank at Pond 20 and Port Master Plan Amendment (PMPA) (project or proposed project) to create a wetland mitigation bank within the District-owned portion of Pond 20, which was historically used as a salt evaporation pond (Bank Parcel) and incorporate the Bank Parcel and adjacent Parcels A, B, and C into the District's Port Master Plan (PMP) and assign land use designations.

This environmental impact report (EIR) prepared in compliance with the California Environmental Quality Act (CEQA) Public Resource Code (PRC) Section 21000 et seq. and the CEQA Guidelines (Section 15000 et seq.), as promulgated by the California Resources Agency and the Governor's Office of Planning and Research (OPR). The purpose of this document is to disclose the potential environmental impacts associated with the project.

Project Description

Project Location

The project site consists of approximately 95 acres, which comprises a combination of District-owned and federally managed land located in the City of San Diego, east of the City of Imperial Beach, and south of the confluences of Nestor Creek, Otay River, and San Diego Bay. The project site is located within the Imperial Beach United States Geological Survey (USGS) 7.5-minute quadrangle and entirely within the Coastal Zone.

There is no official address for the project site; however, it is located immediately north of Palm Avenue (State Route [SR] 75), south of the San Diego Bay National Wildlife Refuge (NWR) South San Diego Bay Unit managed by the United States (U.S.) Fish and Wildlife Service (USFWS), east of 13th Street, west of 16th Street, and southwest of Otay Valley Regional Park. Interstate 5 (I-5) is located approximately 1 mile east of the project site. Surrounding land uses include the San Diego Bay NWR and Otay River Estuary Restoration Project (ORERP) site to the north and commercial and residential developments to the south, east, and west.

Overview

The proposed project includes two primary components, both of which are evaluated in this EIR. While the proposed project is evaluated as a whole because one PMPA is proposed, the level of analysis varies for the two components, as detailed below.

1. **Wetland Mitigation Bank at Pond 20 (Project-Level)** – The District is proposing the creation of a wetland mitigation bank within a portion of District-owned property (Bank Parcel), which was historically used as a salt evaporation pond. The project includes associated construction and long-term operation and maintenance activities of the mitigation bank. The Bank Parcel is District-owned property; however, currently this area is not formally incorporated into the PMP. The District is proposing a PMPA to incorporate the Bank Parcel into the District's PMP and assign a land use designation of wetlands. The wetlands designation is for undeveloped lands having high biological productivity and, as recognized by the PMP, may include areas designated for mitigation, or areas identified for potential wetland enhancement, restoration,

and/or creation opportunities. The creation of the wetland mitigation bank, as well as the incorporation and land use designation of the wetland mitigation bank into the PMP, is evaluated at a project level in this EIR.

2. **PMPA for Parcels A, B, and C (Program-Level)** – As part of the PMPA, the District is proposing to incorporate Parcels A, B, and C into the District’s PMP and assign land use designations. Parcels A, B, and C are District-owned property. However, currently these areas are not formally incorporated into the PMP. Parcels A, B, and C would be assigned a commercial recreation designation. Incorporation of Parcels A, B, and C is evaluated at a program level because the specific details of any future development is currently unknown.

Project Objectives

The basic project objectives of the proposed project include the following:

- Incorporate the Bank Parcel into the PMP and assign a land use designation to be compliant with the Port Act and California Coastal Act (CCA)
- Create a wetland mitigation bank that produces revenue by offering the business community and government agencies the opportunity to purchase predeveloped wetland mitigation credits to mitigate project impacts on wetland habitat
- Enhance ecological functions at the Bank Parcel by providing forage and nesting habitat for native bird species and habitat for native fish species while also creating additional environmental co-benefits such as, but not limited to, carbon sequestration, nutrient cycling, and water quality filtration
- Reduce the chance and scale of flooding within the surrounding off-site area through the Bank Parcel under the existing condition by designing greater capacity to contain stormwater and coastal waters within the Bank Parcel
- Establish tidal influence and create coastal wetlands by reconnecting the Bank Site to tidal flows from San Diego Bay
- Provide long-term protection for the Bank Site by reaching native vegetation coverage and sediment surface elevation success criteria, while providing access for long-term monitoring and restoration of wetlands, as needed
- Incorporate the District-owned Parcels A, B, and C into the PMP and assign a land use designation to be compliant with the Port Act and CCA
- Support economic development and community investment consistent with the District’s adoption of Board of Port Commissioners (BPC) Policy No. 774 (i.e. the Pond 20 Economic Development Fund [EDF])¹ (BPC 2015)
- Promote future development on Parcels A, B, and C that complements adjacent uses

¹ Available at: <https://pantheonstorage.blob.core.windows.net/administration/BPC-Policy-No-774-Pond-20-Economic-Development-Fund-EDF.pdf>

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

Section 15123(b)(2) of the CEQA Guidelines require that an EIR identify areas of controversy known to the lead agency, including issues raised by agencies and the public.

During the public comment period for the Notice of Preparation (NOP), a total of nine comment letters were received regarding the project. The comments submitted on the NOP during the public review and comment period are included in Appendix A of this EIR, and a summary of all comments received is included in Table 1-2 of Chapter 1, Introduction. In general, areas of potential controversy known to the District include hydrology and water quality and biological resources. These issues were considered in the preparation of this EIR, where appropriate, and are addressed in the environmental impact analysis presented in Sections 3.1 through 3.15 of this EIR.

Issues to be Resolved

Section 15123(b)(3) of the CEQA Guidelines requires a discussion of issues to be resolved, including a choice of alternatives and whether, or how, to mitigate significant impacts. The BPC would decide if the significant impacts associated with aesthetics, biological resources, cultural resources, energy, geology and soils, greenhouse gas (GHG) emissions, hazards and hazardous materials, hydrology and water quality, transportation, Tribal Cultural Resources (TCR), and utilities and service systems have been fully mitigated to below a level of significance. Additionally, the BPC would determine whether overriding considerations should be adopted for significant and unavoidable impacts associated with GHG emissions, noise, and transportation. The BPC would also decide whether any of the project alternatives substantially reduce significant impacts while still meeting the key project objectives, and whether one of the alternatives could be approved.

Summary of Project Impacts

Table ES-1 and Table ES-2 summarize environmental impacts, mitigation measures, and level of significance after mitigation associated with the project-level components and program-level components, respectively. Detailed analyses of these topics are included within each corresponding section contained within this document.

Summary of Project Alternatives

The environmental analysis for the proposed project evaluated the potential environmental impacts resulting from implementation of the proposed project, as well as alternatives to the proposed project. The alternatives are summarized below. A detailed discussion of the alternatives to the proposed project is provided in Chapter 6 of this EIR.

- **Alternative 1: No Project/No Wetland Mitigation Bank or PMPA Alternative.** The no project alternative assumes no wetland mitigation bank would be developed, and no parcels would be incorporated into the PMP. The project site would remain in its current undeveloped condition.
- **Alternative 2: Wetland Mitigation Bank and No Commercial Development on Parcels A, B, and C.** This alternative assumes the creation of the wetland mitigation bank would occur as described in this EIR. The Bank Parcel would be incorporated into the PMP with the land use designation of wetlands. Parcels A, B, and C would still be incorporated into the PMP; however, instead of the land use designation of commercial recreation the land use designation of open space would be assigned. The land use designation of open space allows

for passives uses such as outlooks, picnic areas, spur trails, and/or interpretive and educational opportunities. This alternative assumes preservation and protection of the wetland features on Parcels A and C.

- **Alternative 3: Wetland Mitigation Bank, Commercial Recreation on Parcels B and C, and Open Space on Parcel A.** This alternative assumes the creation of the wetland mitigation bank would occur as described in this EIR. The Bank Parcel would be incorporated into the PMP with the land use designation of wetlands. Parcels B and C would still be incorporated into the PMP as commercial recreation, as described in this EIR. Parcel A would be incorporated into the PMP with the land use designation of open space. Similar to Alternative 2, the open space land use designation would allow for passive uses on Parcel A. This alternative assumes preservation and protection of the wetland features on Parcel A.

Environmentally Superior Alternative

The No Project/No Wetland Mitigation Bank or PMPA Alternative is considered the environmentally superior alternative to the proposed project as it would reduce or avoid impacts for all resource topics, with the exception of land use and planning. However, CEQA Guidelines Section 15126.6(e)(2) states that “if the environmentally-superior alternative is the No Project Alternative, the EIR shall also identify an environmentally-superior alternative among the other alternatives.” As shown in Table 6.6-1 in Chapter 6, Alternatives to the Proposed Project, Alternative 2: Wetland Mitigation Bank and No Commercial Development on Parcels A, B, and C would be the environmentally superior alternative because this alternative would avoid significant and unavoidable impacts associated with GHG emissions, noise, and transportation. Additionally, less than significant impacts associated with several resource areas would be reduced or avoided, including impacts on air quality, energy, geology and soils, and utilities and service systems. However, the project objective of supporting economic development and community investment in alignment with the District’s adoption of BPC Policy No. 774 would not be met by the program-level component. By not including commercial development on Parcels A, B, and C, this alternative does not maximize the economic benefits contemplated by Board Policy No. 774.¹



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
3.1 Aesthetics			
No significant aesthetic impacts were identified.	Less than significant	No mitigation measures required.	—
3.2 Air Quality			
No significant air quality impacts were identified.	Less than significant	No mitigation measures required.	—
3.3 Biological Resources			
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 the CDFW or USFWS.	Significant	<p>MM BR-1 Implement Biological Resource Protection Measures During Construction. The District (or project proponent) shall implement the following BMPs during construction to minimize direct and indirect impacts on special status species and their habitats.</p> <ul style="list-style-type: none"> a) Prior to the commencement of construction, the District (or project proponent) shall designate a Project Biologist (a person with, at minimum, a bachelor's degree in biology, ecology, or environmental studies with familiarity with federally and/or state listed plant and wildlife species and other, nonlisted special status plant and wildlife species with the potential to be impacted by the project) who shall be responsible for overseeing compliance with the protective measures for biological resources identified herein during vegetation clearing and work activities within and abutting areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife, and shall maintain communications with the contractor to ensure that issues relating to biological resources are appropriately managed. The Project Biologist may designate qualified biologists or biological monitors to help oversee project compliance or conduct the preconstruction 	Less than significant

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Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>surveys for special status species identified in MM BR-2, MM BR-4, and MM BR-8. These biologists shall have familiarity with the species for which they would be conducting preconstruction surveys or monitoring construction activities.</p> <p>b) The Project Biologist or designated qualified biologist shall review final plans, designate areas not proposed for disturbance that need temporary fencing per subsection (h) below (e.g., SHA fencing), and monitor construction activities within and adjacent to areas with native vegetation communities or special status plant and wildlife species. The qualified biologist shall monitor activities during critical times such as vegetation removal, initial ground-disturbing activities, and the installation of BMPs and fencing to protect native species, and shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed. The qualified biologist shall monitor the SHA fencing and shall provide corrective measures to the contractor to ensure that the fencing is maintained throughout construction. The qualified biologist shall have the authority to stop work and redirect work if a special status wildlife species is encountered within the project area during construction until the Project Biologist or qualified biologist determine(s) that the animal would not be harmed (i.e., no ground disturbing activities are proposed within 100 feet) or it has left the construction area on its own. Also see subsection (e) below.</p> <p>c) Prior to the start of construction, all project personnel and contractors who would be on site during construction shall complete mandatory training conducted by the Project</p>	



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>Biologist or a designated qualified biologist. Any new project personnel or contractors that come on board after the initiation of construction shall also be required to complete the mandatory WEAP training prepared and conducted by the Project Biologist before they commence with work. The training shall advise workers of potential impacts on sensitive habitat and federally and/or state listed and other special status species and the potential penalties for impacts on such habitat and species. At a minimum, the training shall include the following topics: (1) occurrences of the special status species and sensitive vegetation communities in the project area (including vegetation communities subject to ACOE, CDFW, and RWQCB jurisdiction), (2) protective measures to be implemented in the field, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced areas to avoid sensitive resource areas in the field (i.e., avoided areas delineated on maps or on the project site by fencing); (3) the protocol to resolve conflicts that may arise at any time during the construction process; and (4) reporting requirements and procedures to follow should a federally and/or state listed species be encountered during construction.</p> <p>d) The training program shall include color photos of federally and/or state listed species, other special status species, and sensitive vegetation communities. Following the education program, the photos shall be posted in the contractor and resident engineer's office where the photos shall remain throughout the duration of project construction. Photos of the habitat in which sensitive species are found shall be posted onsite. The contractor</p>	

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Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>shall be required to provide the District with evidence of the employee training (e.g., a sign-in sheet) on request.</p> <p>Project personnel and contractors shall be instructed to immediately notify the Project Biologist or designated biologist of any incidents that could affect sensitive vegetation communities or special status species. Incidents could include fuel leaks or injury to any wildlife. The Project Biologist shall notify the District of any incident within 24 hours of being noticed.</p> <p>e) Vegetation removal and initial ground disturbance shall occur outside of the bird nesting season (February 15 – September 15). Should vegetation removal or initial ground disturbance be required during the bird nesting season, the Project Biologist must conduct a preconstruction nesting survey. Should active nests be present, a construction avoidance buffer of 300 feet is required until the young have fledged or the nest has failed naturally. The biologist may reduce the buffer if, in their professional judgment, topography or other factors mitigate potential impacts from construction vibration, noise, dust, and visual intrusion. For federally and state listed species, see MM BR-4.</p> <p>f) The Project Biologist shall have the authority to halt work, and redirect work if necessary to ensure the proper implementation of species and habitat protection. The Project Biologist shall report any noncompliance issues to the District within 24 hours of its occurrence.</p> <p>g) The Project Biologist shall monitor the project site immediately prior to and during construction to identify the presence of invasive weeds and shall recommend measures to avoid their inadvertent spread in association with the project. All construction equipment shall be</p>	



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>washed and cleaned of debris prior to entering the construction site to minimize the spread of invasive weeds.</p> <p>h) All habitat regulated by CCC, ACOE, RWQCB, USFWS, NMFS, and/or CDFW, and habitat with potential to support special status species outside of, and abutting the designated project limits of disturbance shall be designated as SHAs on project maps. Prior to construction, the Contractor shall delineate the project limits, including construction, staging, lay-down, and equipment storage areas, and erect the construction boundary, with fencing or flagging, along the perimeter of the identified construction area to protect adjacent sensitive habitats and sensitive-plant populations. SHAs shall be clearly delineated with fencing or flagging or other BMPs prior to construction to inform construction personnel where the SHAs are located and shall be confirmed by the Project Biologist or designated biologist prior to construction. SHAs fencing may include orange plastic snow fence, orange silt fencing, or stakes and flagging in areas of flowing water. No personnel, equipment, or debris shall be allowed within the SHAs. Fences and flagging shall be installed by Contractor in a manner that does not impact habitats to be avoided and such that it is clearly visible to personnel on foot and operating heavy equipment. 10 days prior to initiating construction, the Contractor shall submit to the District final plans for initial clearing and grubbing project construction. These final plans shall include photographs that show the fenced and flagged ESHA limits and all areas to be impacted or avoided. If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied. Temporary construction fences and markers shall be maintained in good repair by</p>	

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>the Contractor during construction and shall be removed upon completion of project construction.</p> <ul style="list-style-type: none"> i) No work activities, materials or equipment storage, or access shall be permitted outside the project limits without permission from the District. All parking and equipment storage by the contractor related to the project shall be confined to the project limits. Contractor shall not conduct work in undisturbed areas and sensitive habitat outside and adjacent to the project limits shall not be used for parking or equipment storage. Project-related vehicle traffic shall be restricted to the project limits and established roads and construction access points. j) Construction activities shall be limited to daylight hours to the extent feasible. If nighttime activities are unavoidable, then workers shall direct all lights for nighttime lighting into the work area and shall minimize the lighting of natural habitat areas adjacent to the work area. The contractor shall use light glare shields to reduce the extent of illumination into sensitive habitats. If the work area is located near surface waters, the lighting shall be shielded such that it does not shine directly into the water. k) Clearing shall be confined to the minimal area necessary to facilitate construction activities. Cleared vegetation and spoils shall be disposed of daily at a permanent offsite spoils location or at a temporary onsite location that would not create habitat for special status wildlife species. Spoils and dredged material shall be disposed of at an approved site or facility in accordance with all applicable federal, state, and local regulations. l) Food-related and other garbage shall be disposed of in wildlife-proof containers and shall be removed from the 	



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>project area daily during the construction period. Vehicles carrying trash or hauling dirt/sediment shall be required to have loads covered and secured to prevent dirt, trash, and debris from falling onto roads and adjacent properties.</p> <p>m) All construction equipment used for the project shall be maintained in accordance with manufacturer’s recommendations, and requirements and shall be maintained to comply with noise standards (e.g., exhaust mufflers, acoustically attenuating shields, shrouds, or enclosures).</p> <p>n) The Contractor shall store all construction-related vehicles and equipment in the designated staging areas.</p> <p>o) The Contractor shall avoid wildlife entrapment by completely covering or providing escape ramps for all excavated steep-walled holes or trenches more than 1 foot deep at the end of each construction work day. The qualified biologist shall inspect open trenches and holes and shall remove or release any trapped wildlife found in the trenches or holes prior to filling by the construction contractor</p> <p>p) Special status wildlife can be attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar features; construction equipment; or construction debris left overnight in areas that may be occupied by special status species that could occupy such structures shall be inspected by a qualified biologist prior to being used for construction. Such inspections shall occur at the beginning of each day’s activities for those materials to be used or moved that day. If necessary, and under the direct supervision of the biologist, the structure may be moved up</p>	

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>to one time to isolate it from construction activities, until the special status species has moved from the structure of their own volition or has been captured and relocated.</p> <p>q) Capture and relocation of trapped or injured wildlife listed under FESA or CESA can only be performed by personnel with appropriate state and/or federal permits. Any trapped or injured wildlife and any incidental take shall be reported to the District within 1 working day of the discovery including dates, locations, habitat description, and any corrective measures taken to assist the injured special status species encountered.</p> <p>r) The spread of dust from work sites to sensitive natural communities or sensitive-species habitats on adjacent lands shall be minimized by use of a water truck. Dirt access roads, haul roads, and spoils areas shall be watered to prevent the spread of dust. Follow SWPPP to reduce dust emissions.</p> <p>s) The Contractor shall strictly limit their activities, vehicles, equipment, and construction materials to established roads and the project disturbance limits. Signs shall be posted within the staging area, non-paved access routes, and project site with a maximum 15 mile per hour speed limit.</p> <p>t) To prevent harassment, injury, or mortality of sensitive wildlife by dogs or cats, no canine or feline pets shall be permitted in the active construction area.</p> <p>u) Plastic monofilament netting or similar material shall not be used for erosion control because smaller wildlife may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackifier hydroseeding compounds. This limitation shall be communicated to the</p>	



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>contractor through specifications or special provisions included in the construction bid solicitation package.</p> <ul style="list-style-type: none"> v) Pest and weed management shall be conducted in compliance with the District’s Integrated Pest Management Plan. w) Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within secondary containment per the SWPPP. x) The Contractor shall be required to conduct vehicle refueling in upland areas where fuel cannot enter WOUS or WOS and in areas that do not have potential to support sensitive habitat or federally and/or state listed species. Any fuel containers, repair materials including creosote-treated wood, and/or stockpiled material that is left onsite overnight shall be secured in secondary containment within the work area and staging/assembly area, and covered with plastic at the end of each work day. y) In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor shall ensure that all portable fuel containers are securely locked and/or removed from the project site. z) Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces shall be cleaned up and disposed of following the guidelines identified in the SWPPP, Materials Safety Data Sheets, and any specifications required by other permits issued for the project. 	

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>aa) The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment.</p> <p>bb) If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment shall be used to capture spills/leaks within all areas. Where feasible, maintenance of equipment shall occur in upland areas where fuel cannot enter WOUS or WOS and ESHAs.</p> <p>MM BR-2 Preconstruction Rare Plant Surveys. Protocol rare plant surveys shall be conducted to locate special status plant species onsite prior to the start of construction. Should a significant population (>3 individuals) of the target species (estuary seablite, salt marsh bird's-beak, Pacific saltbush, Coulter's goldfields, Nuttall's acmispon, beach goldenaster, Brand's star phacelia, aphanisma, beach goldenaster, and Lewis' evening primrose) be identified, the District (or project proponent) shall collect seed from those individuals present within the impact areas and broadcast 50-percent of the seed in the appropriate restoration areas following soil preparation as supervised by a qualified Lead Biologist (Lead Biologist Minimum Qualifications: Bachelor's degree in Biology[or equivalent such as a degree in Natural Resources] and a minimum of 5 years of restoration experience or equivalent, such as restoration certification and at least 12 semester units of botany course work or 100 hours of independent study with CNPS or other local botanical society, or 5+ years of seed collection and propagation experience with the target genera). Seeding shall be considered successful if the target species is observed at least twice over a five year period. Fifty-percent of the collected seed shall be stored by a reputable seed bank. Should the seeded areas not meet the performance criteria defined above, the District shall identify an appropriate off-site location to implement a germination and habitat suitability study. The study would review existing available literature and include methodology to test abiotic factors essential for growth of the target species, including, but not limited to, soil pH,</p>	



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>permeability, slope, sun exposure, and rain fall frequency, duration, and distribution patterns. Metrics would include germination rates, survival rates, and productivity based upon seed or fruit set.</p> <p>MM BR-3 Restoration of Temporary Impacts. To avoid or minimize the permanent loss of sensitive habitat resulting from temporary project features, any areas that are bridged, reinforced, or widened to accommodate construction equipment would be restored to preconstruction conditions and vegetated with appropriate native plant species once construction is complete. This includes potential impacts to seablite scrub, pickleweed mats, salt pan, and open water that are subject to regulation by CCC, ACOE, and RWQCB and may be subject to regulation by CDFW. To avoid or minimize any long-term impacts on habitat or vegetation, staging areas, access routes, and other disturbed areas shall be decompacted and recontoured to ensure proper site drainage and revegetated with appropriate native species. Any temporary equipment, structures, or utilities (e.g., water, power) installed at the project site shall be removed at the completion of construction.</p> <p>MM BR-4 Preconstruction Surveys for Federally and State Listed Avian Species. Initial clearing and ground disturbance shall occur outside of the nesting bird season (February 15 – September 15). All other construction-related activities shall occur outside of the nesting bird season to the maximum feasible extent. Should construction need to occur during the nesting bird season, prior to initiation of construction, a District -approved biologist shall:</p> <ol style="list-style-type: none"> a) Perform a minimum of three focused surveys, on separate days, to determine the presence of Ridgway’s rail (light-footed) or Belding’s savannah sparrow nest building activities, egg incubation activities, or brood rearing activities within 500 feet of project construction proposed during the nesting season that could impact these species. The surveys shall begin a maximum of 7 days prior to 	

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>project construction and one survey shall be conducted the day immediately prior to the initiation of work. Additional surveys shall be done once a week during project construction in the nesting season. These additional surveys may be suspended once fledglings have left the nest or if noise at the edge of nesting habitat is less than 60 dBA Leq where the berm occurs between construction and nesting activities.</p> <p>b) If an active Ridgway’s rail (light-footed) or Belding’s savannah sparrow nest is found within a minimum of 100 feet of project construction, the Biological Monitor shall report the nest(s) to the District. A buffer greater than 100 feet may be assessed at the discretion of the monitoring biologist based on species sensitivity, topography, noise/duration of construction activities, etc., to protect active nests. After initial identification of the nest, the biological monitor shall not approach within 25 feet of an active nest; nest monitoring shall occur with binoculars. Signage and SHA fencing shall be installed to deter people from entering any area with an active nest. Work within 500 feet of the active nest shall be halted. The District shall develop an Avoidance and Minimization Plan, including determining whether the existing berm provides adequate protection for the nest to reduce or eliminate the buffer and measures to minimize construction noise at the nest site if not (such as, installation of noise barriers and/or modification in quantity, location or type of equipment), a monitoring plan, and an adaptive management strategy and/or contingency options.</p> <p>MM BR-5 Preconstruction Surveys for Burrowing Owl. A preconstruction survey shall be conducted by a qualified biologist in accordance with the survey requirements detailed in the</p>	



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>California Department of Fish and Game’s March 7, 2012, Staff Report on Burrowing Owl no less than 14 days before initial ground-disturbing activities (California Department of Fish and Game 2012). Any active burrow found during preconstruction survey efforts shall be mapped and provided to the construction foreman. If no active burrows are found, no further mitigation shall be required.</p> <p>A construction avoidance buffer shall be placed around occupied burrows. Recommended buffer distances are based on time of year and level of disturbance:</p> <ul style="list-style-type: none"> • April 1 – August 15: Low disturbance 656 feet, medium and high disturbance 1,640 feet • August 16 – October 15: Low and medium disturbance 656 feet, high disturbance 1,640 feet • October 16 – March 31: Low disturbance 164 feet, medium disturbance 328 feet, high disturbance 1,640 feet <p>If owls must be moved away from the disturbance area, passive relocation is preferable to trapping. Relocation shall be implemented only during the nonbreeding season by a qualified biologist. Owls shall be excluded from burrows in the immediate impact zone by installing one-way doors in burrow entrances. One-way doors shall be left in place for 48 hours to ensure owls have left the burrow before excavation.</p> <p>MM BR-6 Implement Long-Term Operations Maintenance and Management Plan. A Long-Term Management/Operations and Maintenance Plan shall be prepared and implemented. The plan shall address maintenance activities, associated minimization measures, monitoring requirements and adaptive management strategies to be implemented after the site has met its fifth year performance criteria and been accepted by the agencies. The Long Term Operations and Maintenance Management Plan shall include measures to minimize the potential introduction of invasive species during maintenance activities including, but not limited to: washing all equipment prior to entering the site from</p>	

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>another location, removing invasive species before seeding to the maximum extent feasible, collecting all plant material removed during maintenance securely, such as in a burlap bag, and removing from the site. The plan shall prohibit the use of pesticides or herbicides with potential toxicity to aquatic or terrestrial wildlife species. Maintenance and trash/debris removal shall be conducted outside of the bird nesting season (February 15 – September 15) to the maximum extent feasible. If maintenance must occur during the nesting season, a qualified biologist shall conduct preconstruction nesting bird surveys and direct maintenance staff to areas not occupied by nesting birds. The plan shall include contingency erosion control BMPs should they be needed following especially large storms. Should supplemental planting be required, all container stock shall be certified pest free and inspected for pests prior to being unloaded on site. At a minimum, the plan shall include biannual inspections for invasive species cover, fence inspection, vandalism, and illegal dumping. The plan shall include long-term performance criteria to include, at a minimum, no perennial invasive species (ranked by California Invasive Plant Council as moderate to high) and less than 5 percent annual invasive species relative cover. An assessment of habitat function shall be conducted every 10 years. At a minimum, the assessment shall include a wildlife use assessment and an assessment of non-native vegetative cover. The Final Monitoring Report upon which all signatory agencies accept the mitigation site as complete shall serve as the baseline conditions for long-term monitoring. Contingency measures such as supplemental weeding, planting, grading, and erosion control shall be included in the plan. A threshold for implementing contingency measures, such as assessment results with no more than -10 percent deviation from baseline shall be included.</p>	
<p>Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and</p>	<p>Significant</p>	<p>MM BR-1 Implement Biological Resource Protection Measures During Construction.</p> <p>MM BR-3 Restoration of Temporary Impacts.</p>	<p>Less than significant</p>



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
<p>regulations or by the CDFW or USFWS.</p>		<p>MM BR-9 Berm Breach Site – Pre- and Post-Construction Eelgrass Surveys. Eelgrass (<i>Zostera</i> spp.) surveys, consistent with the requirements outlined in the 2014 California Eelgrass Mitigation Policy, shall be conducted to detect any impacts on eelgrass as a result of breaching the berm to open the Bank Site to tidal influence. Surveys shall be conducted prior to breaching the berm. If the pre-construction survey shows no eelgrass is present, no post construction survey and no further surveys or mitigation shall be required. If eelgrass is present a post-construction survey shall be conducted within 30 days following completion of breach construction. If impacts on eelgrass from implementation of the proposed project are identified, mitigation for eelgrass impacts shall be at a ratio of no less than 1.2:1, as required by the California Eelgrass Mitigation Policy. 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 if feasible.</p> <p>MM BR-10 Compensatory Mitigation for Impacts on WOUS, CCC Wetland, and CDFW-Regulated Streambed. Should the project result in a loss of WOUS, CCC wetland, or CDFW-regulated streambed, the District shall provide compensatory mitigation for the loss of regulated waters or streambed at a minimum 1:1 ratio. Compensatory mitigation would consist of establishment to ensure no loss of aquatic function.</p>	
<p>Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.</p>	<p>Significant</p>	<p>MM BR-1 Implement Biological Resource Protection Measures During Construction.</p> <p>MM BR-3 Restoration of Temporary Impacts.</p> <p>MM BR-6 Implement Long-Term Operations Maintenance and Management Plan.</p> <p>MM BR-10 Compensatory Mitigation for Impacts on WOUS, CCC Wetland, and CDFW-Regulated Streambed.</p>	<p>Less than significant</p>

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
3.4 Cultural Resources			
Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.	Significant	<p>MM CR-1 Preparation of a Cultural Resource Mitigation and Management Plan. Prior to commencement of any ground-disturbing activities but no sooner than 90 percent design completion, the District shall contract a qualified archaeologist who is a member of the Register of Professional Archaeologists and meets the SOI's Professional Qualification Standards for Archaeology (36 CFR 61, Appendix A) to develop a CRMMP.</p> <p>The CRMMP shall serve to guide the identification, evaluation, and data recovery of all known and unknown archaeological historical resources in the project site. The overall performance goals of the three phases of archaeological activities to be outlined in the CRMMP are:</p> <ul style="list-style-type: none"> a) Identification: Archaeological testing, guided by an explicit sampling strategy, shall be carried out to identify any intact buried archaeological deposits within the horizontal and vertical extents of project-related disturbance. b) Evaluation: Any intact buried archaeological deposits identified shall be evaluated according to specific thresholds of significance for their potential to yield scientifically consequential information. c) Data Recovery: Any deposits determined to contain scientifically consequential information shall be analyzed and documented following defined methods and objectives in order to recover and preserve the scientifically consequential information they contain. <p>The CRMMP shall be consistent with the SOI's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716–44740), the California OHP's Archaeological Resource Management Reports: Recommended Contents and Format (1990), Guidelines for Archaeological Research Designs (1991), and Guidelines for the Curation of Archaeological Collections</p>	Less than significant



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>(1993), and the ACHP’s Treatment of Archaeological Properties: A Handbook (1980).</p> <p>The CRMMP shall include, at a minimum, the following items:</p> <ul style="list-style-type: none"> • Historic Context: Based on the relevant sections of the <i>Cultural Resource Technical Report</i>, the District’s qualified archaeologist shall prepare a comprehensive historic context for the study area and the surrounding region. The historic context shall conform with guidance from the SOL’s Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44718-44719): <ul style="list-style-type: none"> ○ Identify the concept, time period, and geographical limits for the historic context ○ Assemble the existing information about the historic context ○ Synthesize information ○ Define property types <ul style="list-style-type: none"> ▪ Identify property types ▪ Characterize the locational patterns of property types ▪ Characterize the current condition of property types ○ Identify information needs <p>Specific research topics for the historic context should include attempts to identify further evidence related to the association of CA-SDI-19712 with the Kumeyaay village of La Punta and the Kumeyaay revolt of 1775, as well as a synthesis of comparative regional data from coastal habitation sites dating to the San Dieguito and La Jolla periods to aid in contextualizing the prehistoric occupation of CA-SDI-4360.</p> <ul style="list-style-type: none"> • Research Design: The CRMMP shall include an explicit statement of theoretical and methodological approaches to be followed in the identification, evaluation, and data recovery of archaeological resources. Following the OHP’s <i>Archaeological</i> 	

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p><i>Resource Management Reports: Recommended Contents and Format</i> (1990), appropriate research designs shall:</p> <ul style="list-style-type: none"> A. Discuss the theoretical basis of the proposed research; B. Summarize previous research; C. Present testable hypotheses or state the goals of the research; and D. Identify the test implications of the hypotheses. <p>Pursuant to the SOI's Standards for Archaeological Documentation (48 FR 44734–44737), the research design shall draw upon the historic context to identify:</p> <ul style="list-style-type: none"> o Evaluated significance of the properties to be studied; o Research problems or other issues relevant to the significance of the property; o Prior research on the topic and property type; and how the proposed documentation objectives are related to previous research and existing knowledge; o The amount and kinds of information (data) required to address the documentation objectives and to make reliable statements including at what point information is redundant and documentation efforts have reached a point of diminishing returns; and o Methods to be used to find the information. <p>Pursuant to the SOI's Standards, the research design shall explicitly identify the archaeological data classes that are required to address the specified documentation objectives. Consistent with the information needs identified in the historic context, the research design shall provide thresholds for determining the point at which further data recovery and documentation fail to improve the usefulness of the archeological information being recovered (48 FR 44735).</p>	



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<ul style="list-style-type: none"> • Methods: The CRMMP shall include specific field and laboratory methodologies for the identification, evaluation, and data recovery of archaeological resources. Because all archaeological excavation is by nature destructive, field methods shall be developed once project design has reached 90 percent completion and shall be reviewed upon submittal of final design, in order to avoid unnecessary impacts on archaeological resources in areas that would not be affected by the project, per CEQA Guidelines Section 15162.4(b)(3). <ul style="list-style-type: none"> ○ <i>Identification and Evaluation:</i> The final grading and construction plans shall be reviewed to determine the precise horizontal and vertical extents of ground-disturbing activities. Based on this information, the District’s qualified archaeologist shall develop an archaeological testing and evaluation plan with the stated objective of identifying any intact buried archaeological deposits within the project’s limits of disturbance and determining their significance in accordance with the CRHR criteria (14 CCR 4852[b]). Per the SOI’s Standards and Guidelines for Identification and Evaluation (48 FR 44720–44726), the testing plan should include methods appropriate for the environmental and cultural context of the area under study, as well as expected results and reasons for those expectations. Identification and evaluation Methods for identification and evaluation shall include the following: <ul style="list-style-type: none"> ▪ Mapping and site gridding; ▪ Full-coverage site survey with point-plotting of surface artifacts; ▪ Placement of shovel test pits, auger units, test units, or mechanically excavated trenches, guided by an explicit sampling strategy, not to exceed the extents of proposed disturbance in any given location; 	

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<ul style="list-style-type: none"> ▪ Recording procedures for documenting the results of the excavations, including soil matrix descriptions, artifact types and classifications; ▪ Procedures for in-field recordation of artifacts and features based on type, including prescriptive standards for measurement, description, documentation of stratigraphic context, and photographic documentation; ▪ Specific methodologies and thresholds for determining the integrity of deposits and expected feature types (e.g., shell midden deposits, hearths, occupational deposits) and their potential to yield scientifically consequential data; ▪ Explicit methods for estimating the spatial extent of intact buried deposits identified based on the results of test excavations; and ▪ An artifact disposition policy, stating that only artifacts associated with features and deposits determined to be significant shall be collected for laboratory analysis. All other artifacts shall be recorded in the field and reburied in the unit where they were recovered. <ul style="list-style-type: none"> ○ <i>Data Recovery:</i> The CRMMP shall include a treatment plan for recovering and preserving scientifically consequential data from intact archaeological deposits identified during the testing and evaluation phase that are determined to be significant according to the criteria set forth in the research design. Following the guidelines provided in the ACHP's <i>Treatment of Archaeological Properties: A Handbook</i> (1980), the data recovery plan shall employ methods that shall ensure full, clear, and accurate descriptions of all field operations and observations. Excavation techniques, recording methods, stratigraphic and associational relationships, environmental relationships, and analytical techniques shall be described, insofar as is feasible, in such a way 	



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>as to allow future researchers to reconstruct what was done, what was observed, and why. To the extent feasible, the methods shall take into account the possibility that future researchers would need to use the recovered data to address problems not recognized at the time the data were recovered. Per the SOI's Standards and Guidelines for Archaeological Documentation (48 FR 44734–44737), the archaeological data recovery plan shall include an explicit statement of objectives and methods that responds to needs identified in the research design. The methods and techniques chosen for archeological documentation shall be the most effective, least destructive, most efficient, and economical means of obtaining the needed information.</p> <p>The data recovery plan shall include the following:</p> <ul style="list-style-type: none"> • Explicit descriptive statements of and justification for field study techniques. • A discussion of expected feature types and associated techniques for excavation, recordation, and analysis. • Specific thresholds for determining the level of effort necessary to achieve successful data recovery, based on the estimated spatial extent of intact buried deposits identified in the previous phase. Thresholds shall be tailored to specific deposit and feature types. For instance, the recovery of consequential archaeological data from a small hearth may be considered successful upon excavation of half of the feature by volume. Larger and more complex deposits and features may require an explicit sampling strategy. In all cases, recovery thresholds shall be formulated based on the data needs identified in the research design and adequate justification shall be provided. • Recording procedures for documenting the results of the excavations, including soil matrix descriptions, artifact types and classifications. 	

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<ul style="list-style-type: none"> • Procedures for in-field recordation of artifacts and features based on type, including prescriptive standards for measurement, description, documentation of stratigraphic context, and photographic documentation. • Procedures for recovering samples of soil matrix for specialized analysis (e.g., pollen analysis, phytolith analysis, and flotation for macro-botanical remains and fish scales and otoliths), samples of organic materials for radiocarbon dating, as well as other elemental or chemical analyses. • Laboratory procedures for the initial processing and subsequent analysis of recovered materials, based on the objectives identified in the research design. • An artifact disposition policy, providing criteria and procedures for determining the disposition of artifacts once laboratory analysis is concluded. Artifact curation and discard principles shall be organized under three considerations: research values, practicality, and education potential. Artifacts that meet the discard criteria (e.g., lack of long-term research value, poor archaeological context, poor condition, lack of education potential) shall be reburied at a specified location in the project site. <p>All archaeological units for identification, evaluation, and data recovery shall be excavated in 10-centimeter levels. Sediments removed shall be dry-sifted through 1/8-inch mesh screens. Screening shall be conducted over plastic sheeting (tarps) to reduce environmental damage, prevent contamination of the site's surface deposit, and expedite the backfilling process. Testing data, which includes depth, soil descriptions, soil type and consistency, stratigraphy, and artifact type and material, shall be recorded on standardized forms. Unit form templates shall be included in the CRMMP.</p> <p>Unit locations, features, surface finds, and other spatial data shall be controlled with reference to the Universal Transverse Mercator grid superimposed on aerial photographs rendered by a</p>	



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>geographical information system. Data points to be mapped shall be collected with a GPS unit with submeter accuracy.</p> <p>Artifacts from each field excavation provenience shall be measured, photographed, and recorded on the standardized unit forms. If paleontological resources are encountered, they shall be noted and mapped, but shall not be part of the analysis unless it is clear they are associated with a cultural context.</p> <p>All artifacts from surface collections and excavations shall be collected, with the exception of fire-affected rock, which shall be counted, weighed, and reburied in the excavation unit.</p> <p>All collected artifacts shall be analyzed using the lab methods outlined in the CRMMP. Native American cultural materials shall be classified into one of 12 categories: core, debitage, flaked-stone tool, cobble/percussion tool, ground stone, ceramic, modified bone, modified shell, and miscellaneous items.</p> <p>Recovered ecofacts (unmodified bone and shell specimens) shall be cataloged by faunal class. Historical items shall be identified as specifically as possible, and study beyond simple identification would not be undertaken unless particular items appear to date to the ethnohistoric or Early Historic period.</p> <ul style="list-style-type: none"> • Archaeological Reporting: The CRMMP shall set forth the requirements for reporting. All reports shall be prepared in accordance with the guidelines established by the Secretary of the Interior’s Standards for Archaeological Documentation (48 FR 44734–44737) and the OHP’s <i>Archaeological Resource Management Reports: Recommended Contents and Format</i> (1990) and shall be submitted to the District and the SCIC. <ul style="list-style-type: none"> ○ <i>Testing, Evaluation, and Data Recovery Reports:</i> Upon completion of each phase of archaeological testing evaluation, and data recovery, the District’s qualified archaeologist shall document the results in a report. These documents shall summarize the testing and evaluation efforts and data recovery results by each area or feature that undergoes data recovery. 	

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<ul style="list-style-type: none"> <li>○ <i>Archaeological Monitoring Report:</i> Upon completion of grading and excavation activities, the District’s qualified archaeologist shall prepare a written report detailing monitoring activities performed at archaeological sites CA-SDI-4360 and CA-SDI-19712 and at any other previously undiscovered archaeological site, including the methodology and results of offsite screening of sediment, in the event it is necessary. The report shall include the results of the fieldwork and all appropriate laboratory and analytical studies that were performed in conjunction with excavations. <li>● <i>Curation of Archaeological Collections:</i> Archaeological collections comprise several components, including artifacts, environmental and dating samples, field documentation, laboratory documentation, photographic records, related historical documents, and reports. The District’s qualified archaeologist shall prepare a plan for curating all artifacts, notes, photographs, and materials recovered during identification, evaluation, data recovery, and monitoring. Artifacts to be curated shall include all those that were not discarded pursuant to the artifact disposition policy. The curation plan shall be consistent with the OHP’s <i>Guidelines for the Curation of Archaeological Collections</i> (1993). Curation of artifacts and materials recovered from archaeological investigations requires a formal agreement between the District and a certified curation facility, which shall be initiated prior to undertaking archaeological fieldwork. All materials that are to be curated shall be placed in archival quality, long-term storage packing materials, including acid-free, lignin-free boxes and inert polyethylene bags. The District shall also curate records prepared or assembled in connection with the project, including field notes, drawings, photographs, maps, special studies, and final reports. After completion of laboratory analyses and the production of the final reports, the collection shall be transported to the designated curation facility where it shall be available for study by researchers. 	



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<ul style="list-style-type: none"> • Personnel and Qualifications: The CRMMP shall include a discussion of roles and required qualifications for personnel conducting archaeological testing, evaluation, data recovery, and monitoring. All qualifications shall be verified by the District prior to conducting work for the project. All procedures required by this mitigation measure shall be carried out by, or under the direct supervision of, persons who meet, at a minimum, the SOI’s Professional Qualifications Standards for Archaeology (48 FR 44739) and are members of the Register of Professional Archaeologists. The CRMMP shall outline the requirements and responsibilities for each role, including identifying which personnel shall have the authority to issue stop-work orders during construction and who is responsible for initiating notification procedures in the event of an unanticipated discovery. • Measures for Protecting Cultural Resources: The CRMMP shall include the following measures designed to minimize harm to portions of archaeological sites both within and outside the project’s limits of disturbance during construction: <ul style="list-style-type: none"> ○ <i>WEAP Training:</i> The District’s qualified archaeologist shall prepare a cultural resource-focused WEAP training that shall be given to all ground-disturbing construction personnel to minimize harm to known and unknown archaeological resources. Topics to be included for WEAP training shall be identified in the CRMMP. All site workers shall be required to complete the WEAP training with a focus on cultural resources, including education on the consequences of unauthorized collection of artifacts and a review of discovery protocol. The WEAP training shall also explain the requirements of mitigation measures to be implemented during ground-disturbing activities. ○ <i>Delineation of Work Limits:</i> Prior to construction, the project work limits in the vicinity of previously recorded resources CA-SDI-4360 and CA-SDI-19712 shall be 	

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>delineated with environmentally sensitive area fencing in order to protect these areas from unnecessary impacts.</p> <ul style="list-style-type: none"> o <i>Archaeological Monitoring:</i> The District shall retain archaeological monitors to observe all project-related ground-disturbing activities. The CRMMP shall specify monitoring locations and protocols based on proposed construction activities and the results of archaeological identification, evaluation, and data recovery. In areas where archaeological deposits were not identified or were determined to be disturbed, a single monitor shall be able to observe two or more construction locations or activities within a reasonable walking distance of each other. In areas where intact archaeological deposits were identified, even if they were subject to data recovery, one monitor per location or activity shall be required. <p>The monitors shall be supervised by a qualified archaeologist who meets the SOI's Professional Qualification Standards for Archaeology (48 FR 44739) and has regional experience in prehistoric archaeology. The CRMMP shall rely on OSHA-qualified determinations in regard to the safety of monitoring locations.</p> <p>The CRMMP shall include a plan for sampling and offsite visual observation and screening of sediment removed during excavation in the event that onsite monitoring of excavations is unfeasible due to safety considerations. Based on the research design, an appropriate sampling strategy shall be laid out, specifying the relative proportion of sediment to be sampled, protocols for coordinating with construction crews, location where spoils shall be deposited, and procedures for observation, screening, and documentation. In determining sampling protocols, the plan shall consider the archaeological sensitivity of the location from which the sediment has been removed. In areas where archaeological deposits were not identified or were</p>	



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>determined to be disturbed, visual observation of a small sample of the spoils (less than 5 percent) shall be required. In areas where intact archaeological deposits were identified, even if they were subject to data recovery, visual observation of a larger sample of the spoils (approximately 20 percent) and screening of a subset of this sample (approximately 5 percent) shall be required.</p> <ul style="list-style-type: none"> ○ <i>Unanticipated Discovery Protocol:</i> As required by Section 15064.5(f) of the CEQA Guidelines, the CRMMP shall include provisions for historical or unique archaeological resources accidentally discovered during construction. If cultural materials are discovered during construction, all ground disturbance within a 100-foot-wide buffer of the immediate discovery area shall temporarily cease until the District’s qualified archaeologist can assess the nature and significance of the find. If the feature or deposit appears to be intact, it shall be evaluated according to the procedures detailed in the archaeological testing and evaluation plan and the District shall be immediately notified. If the feature or deposit is determined to be significant, the procedures outlined in the data recovery plan shall be implemented. ● Native American Cultural Patrimony: In the event of the discovery, during any stage of archaeological research or construction, of objects or features with cultural value to descendant communities, including Native American burial remains, associated and unassociated funerary objects, sacred objects, and other cultural patrimony, all ground-disturbing activities in the vicinity of the discovery shall cease immediately. In case isolated objects are encountered in disturbed stratigraphic contexts, the Native American monitor shall be consulted to ensure appropriate treatment or disposition of the objects (per MM CR-4). In case intact deposits are encountered that may reasonably indicate the presence of burial features or human remains, a 100-foot-wide buffer shall be established around the find to secure it from 	

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>further disturbance and all applicable protocols shall be followed in accordance with MM CR-3.</p> <p>MM CR-2 Documentation of Pond 20 to Historic American Landscape Survey Standards and Development of Educational Display. Prior to commencement of any ground-disturbing activities within the Wetland Mitigation Bank Parcel, the District shall supplement the existing HALS documentation of the WSC Salt Works District (USFWS 2001) with additional research, field recordation, and photographic documentation of Pond 20A to HALS standards. Further documentation of Pond 20A shall include: (1) large-format photographic recordation of views of the setting and character-defining features of the portion of Pond 20A within the project site, including levees, channels, secondary berms delimiting individual ponds, and wooden post-and-plank features; (2) preparation of a detailed plan of the historical features of Pond 20A based on field recordation; (3) a detailed historical narrative report; and (4) compilation of historical research, photographs, and maps. The documentation shall be completed by a qualified historian or architectural historian who meets the Secretary of the Interior’s Professional Qualification Standards for History or Architectural History. The archival documentation shall be donated to a suitable repository, such as the San Diego History Center, and copies shall be provided to local historical organizations, such as the South Bay Historical Society. Because creation of the Wetland Mitigation Bank Parcel would alter or destroy some of the existing features of Pond 20A that are representative of past salt works activities (while retaining others, such as the surrounding berm), the District shall design, fabricate, and install an educational display based on archival documentation. The educational display shall include two interpretive panels with historical photographs, maps, and narrative text demonstrating the history of the salt pond and its past use, to be placed in public view at suitable locations at the southern (along Palm Avenue) and western (adjacent to the 13th Street parking lot) boundaries of the project site. The panels shall include information directing viewers to a website, to be designed, prepared, and maintained</p>	



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		by the District, providing further historical narratives, photographs, and maps based on archival documentation.	
Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.	Significant	MM CR-1 Preparation of a Cultural Resource Mitigation and Management Plan.	Less than significant
Disturb any human remains, including those interred outside of formal cemeteries.	Significant	MM CR-3 Inadvertent Discovery of Human Remains. If any previously unrecorded human remains are inadvertently discovered during archaeological investigations or construction, all ground-disturbing activities in the vicinity of the discovery shall cease immediately and a 100-foot-wide buffer shall be established around it to secure it from further disturbance. California State law (Health and Safety Code Section 7050.5; PRC Sections 5097.94, 5097.98 and 5097.99) shall be followed. This law specifies that work shall stop immediately in any areas where human remains or suspected human remains are encountered. The District and the county coroner shall be immediately notified of the discovery. The coroner has 2 working days to examine the remains after being notified by the lead agency. If the remains are determined to be Native American, the coroner has 24 hours to notify NAHC, who shall determine the most likely descendant. The NAHC shall immediately notify the identified most likely descendant, and the most likely descendant has 48 hours to make recommendations to the landowner or representative for the respectful treatment or disposition of the remains and grave goods. If the most likely descendant does not make recommendations within 48 hours, the area of the property shall be secured from further disturbance. If no recommendation is given, the District or its authorized representative shall re-inter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance.	Less than Significant

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
3.5 Energy			
No significant energy impacts were identified.	Less than significant	No mitigation measures required.	—
3.6 Geology and Soils			
No significant geology and soils impacts were identified.	Less than significant	No mitigation measures required.	—
3.7 Greenhouse Gas Emissions			
No significant GHG emission impacts were identified.	Less than significant	No mitigation measures required.	—
3.8 Hazards and Hazardous Materials			
Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.	Significant	<p>MM HAZ-1 Prepare and Implement a Soil Management Plan. Prior to construction, the project proponent shall retain a licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer with experience in contaminated site restoration to prepare and submit a Soil Management Plan to the District for review and approval. After the District’s review and approval, the project proponent shall implement the Soil Management Plan.</p> <p>The plan shall include general provisions for how soils shall be managed within the project site. The plan shall ensure that soil requiring additional testing is identified and any soils that contain contaminants over the screening thresholds are properly managed. The plan shall address CCR Title 22 and Section 13260(a) of the California Water Code. The Soil Management Plan shall include the following:</p> <ul style="list-style-type: none"> • A <i>Site Contamination Characterization Report</i> (Characterization Report) delineating the vertical and lateral extent and concentration of residual contamination from the site’s past uses. The Characterization Report shall include a compilation 	Less than significant



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>of data based on historical records review and from prior reports and investigations and, where data gaps are found, include new soil sampling to characterize the existing vertical and lateral extent and concentration of residual contamination. The project applicant shall coordinate with the County of San Diego Department of Health if the Characterization Report identifies contamination.</p> <ul style="list-style-type: none"> • A <i>Soil Testing and Profiling Plan</i> (Testing and Profiling Plan) for those materials that would be reused onsite, reused offsite, or disposed of during construction. Testing shall occur for all potential contaminants of concern, which shall include CA Title 22 metals, VOCs, and TPH at a minimum, and may also include polyaromatic hydrocarbon, pesticides, polychlorinated biphenyls, or any other suspected potential contaminants. For onsite soil reuse, the Testing and Profiling Plan shall document testing results compared to the ERL thresholds for adverse biological effects (Long et al. 1995). For off-site soil reuse, the Testing and Profiling Plan shall document compliance with applicable screening criteria, which may include U.S. EPA Region 9 RSLs for composite worker soil, DTSC Modified screening levels for commercial and industrial soils, and Tier 1 SSLs contained in RWQCB San Diego Region Order No R9-2014-0041, Conditional Waivers of Waste Discharge Requirements for Low Threat Discharges in the San Diego Region (Waiver 10, Section B(4)). However, offsite reuse screening criteria may be site specific. For offsite disposal, 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 licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer for the potential presence of contaminated soils and for compliance with the Testing and Profiling Plan. • A <i>Soil Disposal Plan</i> (Disposal Plan), which shall describe the process for excavation, stockpiling, dewatering, treating, and loading and hauling of soil from the site. This plan shall be 	

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>prepared in accordance with the Testing and Profiling Plan (i.e., in accordance with CA Title 22 and U.S. DOT Title 40 CFR Part 263), Section 13260(a) of the California Water Code, and current industry best practices for the prevention of cross contamination, spills, or releases. Measures shall include, but not be limited to, segregation into separate piles for waste profile analysis based on organic vapor, and visual and odor monitoring. Alternatively, soil shall be fully characterized <i>in situ</i>, prior to excavation, and may be loaded directly for transport and reuse or disposal in lieu of stockpiling.</p> <p>General soil management controls to be implemented by the contractor and the following topics shall be addressed within the Soil Management Plan:</p> <ul style="list-style-type: none"> • Dust control • Management of soil stockpiles • Stormwater erosion control using BMPs, as specified in a SWPPP <p>MM HAZ-2 Prepare and Implement a Site Worker Health and Safety Plan. Prior to construction the project proponent shall prepare and submit a Site Worker Health and Safety Plan (Safety Plan) to the District for review and approval. The Safety Plan shall 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 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>	



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
3.9 Hydrology and Water Quality			
<p>Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site.</p>	<p>Significant</p>	<p>MM HY-1 Bridge and Channel Scour Monitoring and Maintenance. A Bridge and Channel Scour Monitoring and Maintenance Program shall be developed and implemented by the District. The program shall outline a survey plan to be carried out for a minimum of 10 years. The survey plan shall:</p> <ul style="list-style-type: none"> • Identify protocols for collecting baseline data prior to commencement of construction; • Identify a minimum of 5 cross sections to be surveyed; • Require annual monitoring for at least 10 years; • Identify ideal conditions for monitoring (i.e., season, tide level); • Identify monitoring protocols; and • Require a professional engineer to review the results of the surveys. <p>Based on the results of the survey, a professional engineer shall compare the results of the annual surveys to baseline conditions to determine the amount of scour at each cross section. The professional engineer shall identify adaptive management strategies, if necessary, to ensure the integrity of existing structures, including the Bayshore Bikeway Bridge and salt pond berms.</p> <p>The cross sections included in the program shall include the channel in the area of the Bayshore Bikeway Bridge and the narrow channel cross section of the Otay River immediately downstream of the bridge near Pond 22 identified in Environmental Science Associate's 2020 Hydrodynamic Modeling Report (Appendix K to this EIR).</p> <p>As part of the baseline data collected, the program shall require probing the sediment in the channel in the vicinity of the Bayshore Bikeway Bridge. The conservatively high estimate in Environmental Science Associates' 2020 Hydrodynamic Modeling</p>	<p>Less than significant</p>

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>Report (Appendix K to this EIR) identified the potential for widening of the channel to occur if downcutting is limited at this location. If hardened areas in the sediment are identified at this location, the professional engineer shall identify adaptive management strategies.</p> <p>The program shall identify adaptive management strategies that are appropriate for the location, which would not impact tidal influence at the mitigation bank, and are approved by the professional engineer. Potential adaptive management strategies include:</p> <ul style="list-style-type: none"> • Removal of hardened sediment near the Bayshore Bikeway Bridge; • Excavation of sediment; • Re-grading of the channel; and • Armoring of the channel. 	
3.10 Land Use and Planning			
No significant land use or planning impacts were identified.	Less than significant	No mitigation measures required.	—
3.11 Noise			
No significant noise impacts were identified.	Less than significant	No mitigation measures required.	—
3.12 Public Services			
No significant public service impacts were identified.	Less than significant	No mitigation measures required.	—



Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
3.13 Transportation			
No significant public service impacts were identified.	Less than significant	No mitigation measures required.	—
3.14 Tribal Cultural Resources			
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Significant	<p>MM TCR-1 Native American Monitoring. The District shall retain a qualified Native American cultural resource monitor to be present during all archaeological investigations, grading, and subsurface disturbance within the project site. In the event that on-site monitoring of excavations is determined unfeasible due to safety or logistical concerns, the Native American monitor shall be present during off-site visual observation or screening of sediment, as detailed in MM CR-1. The Native American monitor shall work in coordination with the archeological monitor and the District’s qualified archaeologist, who shall notify them in advance of the schedule and locations for cultural resource monitoring activities. If more than one location is under construction at a given time, and if both locations cannot effectively be monitored by one individual, more than one Native American monitor may be required.</p> <p>Because the Native American monitor is invited to participate, work shall be allowed to continue without their presence. The Native American monitor shall not have the authority to temporarily halt equipment or issue a stop-work order. The Native American monitor shall report any concerns and input to the archaeological monitor or the District’s qualified archaeologist, who shall be responsible for taking the appropriate action in response.</p>	Less than significant

Table ES-1. Summary of Project-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
3.15 Utilities and Service Systems			
No significant public service impacts were identified.	Less than significant	No mitigation measures required.	—

Notes:

ACHP=Advisory Council on Historic Preservation; ACOE=United States Army Corps of Engineers; BMP=best management practices; CCC=California Coastal Commission; CCR=California Code of Regulations; CDFW=California Department of Fish and Wildlife; CESA=California Endangered Species Act; CEQA=California Environmental Quality Act; CFR=Code of Federal Regulations; CNPS=California Native Plant Society; CRHR=California Register of Historical Resources; CRMMP=Cultural Resource Mitigation and Management Plan; DOT=Department of Transportation; DTSC=Department of Toxic Substances Control; EPA=Environmental Protection Agency; ERL=effects range low; ESHA=environmentally sensitive habitat area; FESA=Federal Endangered Species Act; FR=Federal Register; GPS= global positioning system; HALS=Historic American Landscapes Survey; MM=mitigation measures; NAHC=Native American Heritage Commission; NMFS=National Marine Fisheries Service; OHP=Office of Historic Preservation; OSHA=Occupational Safety and Health Administration; PRC=Public Resources Code; RSL=Regional Screening Levels; RWQCB=Regional Water Quality Control Board; SCIC=South Coast Information Center; SOI=Secretary of Interior; SHA=sensitive habitat area; SSL=Soil Screening Levels; SWPPP=Storm Water Pollution Prevention Plan; TPH=total petroleum hydrocarbons; USFWS=United States Fish and Wildlife; U.S.=United States; VOC=volatile organic compounds; WEAP=Worker Environmental Awareness Program; WOS=Waters of the State; WOUS=Waters of the United States; WSC=Western Salt Company



Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
3.1 Aesthetics			
Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	Significant	<p>MM AES-1 Reduced Glare Building Materials. The commercial development project proponent shall incorporate non-reflective or reduced glare building materials in the design of any structures proposed for development on Parcels A, B, and C consistent with applicable municipal codes. Any glass incorporated into the design shall either be low reflectivity or accompanied by a non-glare coating. Prior to building permits being issued for construction, the District shall confirm reduced glare building materials are included on the appropriate building plans.</p> <p>MM AES-2 Shield or Downcast Nighttime Lighting. The commercial development project proponent shall ensure that all nighttime lighting, either for nighttime construction or security lighting, shall be shielded downward to avoid any light spillover off site and lighting shall be limited to an amount required for safety of construction personnel and security of construction equipment.</p>	Less than significant
3.1 Air Quality			
No significant air quality impacts were identified.	Less than significant	No mitigation measures required.	—
3.3 Biological Resources			
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 the CDFW or USFWS.	Significant	<p>MM BR-1 Implement Biological Resource Protection Measures During Construction.</p> <p>MM BR-2 Preconstruction Rare Plant Surveys.</p> <p>MM BR-3 Restoration of Temporary Impacts.</p> <p>MM BR-4 Preconstruction Surveys for Federally and State Listed Avian Species.</p> <p>MM BR-5 Preconstruction Surveys for Burrowing Owl.</p>	Less than significant

Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>MM BR-7 Implement Biological Resource Protection Measures During Operations for Parcels A, B, and C. To avoid or minimize potential operations impacts on biological resources resulting from development of Parcels A, B, and C, the following measures shall be implemented:</p> <ul style="list-style-type: none"> a) Landscape plans shall not include the use of plant species considered invasive by California Invasive Plant Council. All plant species specified in the landscape plans shall be certified free of pests, including plant pathogens. b) Light glare shields shall be included in the project design to reduce the extent of illumination into sensitive habitats. If lighting is located near surface waters, it shall be shielded such that it does not shine directly into the water. c) Masonry block walls or equivalent shall be erected around the perimeter of the project area to prevent domestic pets or other animals that could harm biological resources in adjacent habitats. d) The commercial development project proponent shall ensure operation noise levels are kept below 60 dBA Leq at the margin of the nearest occupied breeding habitat for state or federally listed species. e) The commercial development project proponent shall design the project such that no stormwater runoff shall enter adjacent native habitat areas. All stormwater runoff shall be channeled into storm drains. <p>MM BR-8 Wildlife Surveys for Parcels A, B, and C. The District (or project proponent) shall conduct nesting season (February 15 – September 15) surveys on Parcel A for Belding’s savannah sparrow, Ridgway’s rail (light-footed), western snowy plover, and burrowing owl; on Parcel B for Belding’s savannah sparrow, Ridgway’s rail light-footed, and burrowing owl; and on</p>	



Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>Parcel C for burrowing owl prior to project initiation. If no special status wildlife species are present, no further mitigation shall be required.</p> <p>Should occupied Belding's savannah sparrow habitat be proposed for permanent impact, the District shall provide salt marsh establishment within the Bank Site at a minimum 1:1 mitigation ratio to ensure no net loss of breeding habitat or approved compensatory mitigation.</p> <p>Should occupied Ridgway's rail light-footed habitat be proposed for permanent impact, the District shall provide salt marsh establishment within the Bank Site at a minimum 1:1 mitigation ratio to ensure no net loss of breeding habitat or approved compensatory mitigation.</p> <p>Should occupied western snowy plover or California least tern breeding habitat be proposed for permanent impact, the District shall provide habitat establishment within the San Diego Bay at a minimum 1:1 mitigation ratio to ensure no net loss of breeding habitat or approved compensatory mitigation.</p> <p>Should habitat occupied by a breeding pair of burrowing owl be proposed for permanent impact, the District shall provide mitigation on the mitigation methods section of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 2012). To mitigate for permanent impacts on nesting, occupied and satellite burrows, and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced at a minimum 1:1 ratio.</p>	
<p>Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS.</p>	<p>Significant</p>	<p>MM BR-1 Implement Biological Resource Protection Measures During Construction.</p> <p>MM BR-7 Implement Biological Resource Protection Measures During Operations for Parcels A, B, and C.</p>	<p>Less than significant</p>

Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Significant	MM BR-1 Implement Biological Resource Protection Measures During Construction. MM BR-3 Restoration of Temporary Impacts. MM BR-7 Implement Biological Resource Protection Measures During Operations for Parcels A, B, and C. MM BR-10 Compensatory Mitigation for Impacts on WOUS, CCC Wetland, and CDFW-Regulated Streambed.	Less than significant
3.4 Cultural Resources			
Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.	Significant	MM CR-1 Preparation of a Cultural Resource Mitigation and Management Plan.	Less than significant
Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.	Significant	MM CR-1 Preparation of a Cultural Resource Mitigation and Management Plan.	Less than significant
Disturb any human remains, including those interred outside of formal cemeteries.	Significant	MM CR-3 Inadvertent Discovery of Human Remains.	Less than Significant
3.5 Energy			
Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Significant	MM GHG-1 Greenhouse Gas Emission Reducing Design. For details, see Section 3.7, Greenhouse Gas Emissions. MM TRAN-1 Implement Transportation Demand Management Measures. For details, see Section 3.13, Transportation.	Less than significant



Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
3.6 Geology and Soils			
Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Significant	<p>MM GEO-1 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 Planning Department, 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 bgs, 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. 	Less than significant

Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (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. 	
3.7 Greenhouse Gas Emissions			
<p>Generate greenhouse gas emissions, either directly or indirectly, that may have an adverse effect on the environment.</p>	<p>Significant</p>	<p>MM GHG-1 Greenhouse Gas Emission Reducing Design. Prior to approval, future commercial developments shall list all GHG emission-reducing measures and demonstrate where these measures would be located in the plans. A report demonstrating compliance shall be submitted to the District's Planning Department.</p> <p>The following is a list of proposed sustainability measures from the District CAP that shall be required and incorporated into the CDP for the project.</p> <ul style="list-style-type: none"> • General measures: <ul style="list-style-type: none"> ○ No commercial drive-through shall be implemented. • Water: <ul style="list-style-type: none"> ○ Indoor water consumption shall be reduced by 20 percent lower than baseline buildings (defined by Leadership in Energy and Environmental Design as indoor water use after meeting Energy Policy Act of 1992 fixture performance requirements) through use of 	<p>Significant and unavoidable</p>



Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>low-flow fixtures in all administrative and common area bathrooms.</p> <ul style="list-style-type: none"> ○ Low-water plantings and drip irrigation shall be installed, and domestic water demand from the city system for landscaping purposes shall be minimized. ● Waste: <ul style="list-style-type: none"> ○ Compliance with AB 939 shall be mandatory and include recycling at least 50 percent of solid waste; recycling of demolition debris shall be mandatory and include recycling at least 65 percent of all construction and demolition debris. ○ All commercial, restaurant, and retail uses shall implement recycling, composting of food waste and other organics, and the use of reusable products instead of disposable products to divert solid waste from the landfill stream. ○ Recycled, regional, and rapidly renewable materials shall be used where appropriate during project construction. ● Energy: <ul style="list-style-type: none"> ○ Energy efficiency design features shall be incorporated that exceed the most recent Title 24 California Building Energy Efficiency Standards. Measures that may be implemented include: <ul style="list-style-type: none"> ▪ Only fluorescent, light-emitting diodes, compact fluorescent lights, or the most energy-efficient lighting that meets required lighting standards and is commercially available shall be used. ▪ Occupancy sensors for all vending machines shall be installed in new buildings at the project site. ▪ On-site renewable energy to new buildings shall be implemented, unless the system cannot be built due 	

Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>to structural and operational constraints; evidence must be provided if not feasible, subject to District concurrence.</p> <ul style="list-style-type: none"> ▪ Cogeneration systems (i.e., combined heat and power systems) shall be installed in new buildings constructed at the project site. ▪ High-performance glazing with a low solar heat gain coefficient value that reduces the amount of solar heat allowed into the building shall be installed, without compromising natural illumination. ▪ Increased insulation shall be installed. ▪ Cool roofs with an R value of 30 or better shall be installed. ▪ Sun-shading devices shall be installed, as appropriate. ▪ High-efficiency heating, ventilating, and air conditioning systems and controls shall be installed. ▪ Programmable thermostats shall be installed. ▪ Variable frequency drives shall be installed. ▪ Energy Star-rated appliances shall be installed. <ul style="list-style-type: none"> • Mobile sources: <ul style="list-style-type: none"> ○ A minimum 6 percent of parking spaces shall be electric vehicle-ready. ○ A TDM plan for each project component that requires mandatory employer commuting measures, such as carpooling, transit subsidies, and vanpools, shall be implemented to reduce worker trips and parking demand. 	



Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<ul style="list-style-type: none"> ○ Bicycle parking shall be included in project design. The number of spaces shall be, at a minimum, 5 percent of new automobile parking spaces. ● Carbon sequestration and land use: <ul style="list-style-type: none"> ○ Trees and shrub planters shall be installed throughout the project area as part of the landscape plan. <p>MM GHG-2 Electric Heating and Zero Net Energy Building. The District shall require all development to meet the state's Zero Net Energy standards, if the standards are adopted prior to commencement of construction.</p> <p>MM TRAN-1 Implement Traffic Demand Management Measures. For details, see Section 3.13, Transportation.</p>	
Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Significant	<p>MM GHG-1 Greenhouse Gas Emission Reducing Design.</p> <p>MM GHG-2 Electric Heating and Zero Net Energy Building.</p> <p>MM TRAN-1 Implement Traffic Demand Management Measures. For details, see Section 3.13, Transportation.</p>	Significant and unavoidable
3.8 Hazards and Hazardous Materials			
Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.	Significant	<p>MM HAZ-1 Prepare and Implement a Soil Management Plan.</p> <p>MM HAZ-2 Prepare and Implement a Site Worker Health and Safety Plan.</p>	Less than significant

Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
3.9 Hydrology and Water Quality			
No significant hydrology or water quality impacts were identified.	Less than significant	No mitigation measures required.	—
3.10 Land Use and Planning			
No significant land use or planning impacts were identified.	Less than significant	No mitigation measures required.	—
3.11 Noise			
Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Significant	<p>MM NOI-1 Employ Noise Reducing Measures During Construction. Construction of the future commercial development on Parcels A, B, and/or C shall be required to comply with the following measures:</p> <ul style="list-style-type: none"> a) Construction activity is prohibited between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington’s Birthday, or on Sundays, that would create disturbing, excessive, or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator, in conformance with San Diego Municipal Code Section 59.5.0404. No noise variance permit would be sought and construction would adhere to the times identified above. b) The contractor shall equip all internal combustion engines with the manufacturer-recommended muffler and shall not operate any internal combustion engine on the job site without the appropriate muffler. 	Significant and unavoidable



Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>c) The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.</p> <p>d) When construction activities are projected to exceed 75 dBA L_{eq} during the 12-hour period from 7:00 a.m. to 7:00 p.m., equipment generating the noise shall be acoustically shielded with temporary noise barriers or pile driving shielding. The need for and feasibility of temporary noise barriers would be evaluated on a case-by-case basis by considering the distance to noise-sensitive receptors, available space at the construction location, safety, and proposed project operations.</p>	
Generation of excessive groundborne vibration or groundborne noise levels.	Significant	MM NOI-1 Employ Noise Reducing Measures During Construction.	Significant and unavoidable
3.12 Public Services			
No significant public service impacts were identified.	Less than significant	No mitigation measures required.	—
3.13 Transportation			
Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).	Significant	<p>MM TRAN-1 Implement Transportation Demand Management Measures. To reduce VMT by operation of future commercial development, the following TDM reduction measures from the SANDAG Mobility Management VMT Reduction Calculator Tool shall be implemented.</p> <ul style="list-style-type: none"> • <i>1B Mandatory Employer Commute Program.</i> The District shall mandate future project applicants to implement a commute 	Significant and unavoidable

Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
		<p>program as part of their lease. Employer offers a mandatory employer commute trip reduction program. The program may include a carpool or vanpool program, subsidized or discounted transit passes, bike amenities, encouragement for telecommuting and alternative work schedules, commute trip reduction marketing, and preferential parking permit program.</p> <ul style="list-style-type: none"> ○ <i>1C Employer Carpool Program.</i> Employers can encourage carpooling by providing ridematching assistance to employees; providing priority parking for carshare vehicles; and providing incentives for carpooling. The District shall mandate future project applicants to implement a commute program as part of their lease. ○ <i>1D Employer Transit Pass Subsidy.</i> Employers can encourage employees to take transit by subsidized or discounted daily or monthly public transit passes to employees. ○ <i>1E Employer Vanpool Program.</i> Vanpooling is a flexible form of public transportation that provides groups of 5–15 people with a cost-effective and convenient rideshare option for commuting. An employer can encourage ridesharing by subsidizing vanpooling for employees that have a similar origin and destination and by providing priority parking for employees that vanpool. The SANDAG Vanpool Program provides a subsidy of up to \$400 per month to offset the vehicle lease cost. ● <i>4C Bike Facility Improvement.</i> A bikeway network includes an interconnected system of bike lanes, bike paths, and cycle tracks (Class I, Class II, and Class IV facilities). Bike facilities may share the roadway with vehicles or provide a dedicated pathway that separates bikes from cars or pedestrians. Increasing the network of bike facilities help to encourage biking as a safe and convenient alternative to driving. 	



Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
3.14 Tribal Cultural Resources			
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Significant	MM TCR-1 Native American Monitoring.	Less than significant
3.15 Utilities and Service Systems			
Require or result in the relocation or construction of new or expanded water treatment or stormwater drainage, electrical power, natural gas, or	Significant	MM BR-1 Implement Biological Resource Protection Measures During Construction. For details, see Section 3.3, Biological Resources. MM BR-2 Preconstruction Rare Plant Surveys. For details, see Section 3.3, Biological Resources.	Less than significant

Table ES-2. Summary of Program-Level Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Significance Determination (Before Mitigation)	Proposed Mitigation Measures	Significance Determination (After Mitigation)
telecommunication facilities , the construction or relocation of which could cause significant environmental effects.		<p>MM BR-3 Restoration of Temporary Impacts. For details, see Section 3.3, Biological Resources.</p> <p>MM BR-4 Preconstruction Surveys for Federally and State Listed Avian Species. For details, see Section 3.3, Biological Resources.</p> <p>MM BR-5 Preconstruction Surveys for Burrowing Owl. For details, see Section 3.3, Biological Resources.</p> <p>MM BR-7 Implement Resource Protection Measures During Operation for Parcels A, B, and C. For details, see Section 3.3, Biological Resources.</p> <p>MM BR-8 Wildlife Surveys for Parcels A, B, and C. For details, see Section 3.3, Biological Resources.</p> <p>MM BR-10 Compensatory Mitigation for Impacts to Waters of the U.S., CCC-wetland, and CDFW-regulated Streambed. For details, see Section 3.3, Biological Resources.</p> <p>MM CR-1 Preparation of a Cultural Resource Mitigation and Management Plan. For details, see Section 3.4, Cultural Resources.</p> <p>MM CR-3 Inadvertent Discovery of Human Remains. For details, see Section 3.4, Cultural Resources.</p> <p>MM TCR-1 Native American Monitoring. For details, see Section 3.14, Tribal Cultural Resources.</p>	

Notes:

AB=Assembly Bill; ACOE=United States Army Corps of Engineers; bgs=below ground surface; CAP=Climate Action Plan; CCC=California Coastal Commission; CDFW=California Department of Fish and Wildlife; CDP=Coastal Development Permit; CEQA=California Environmental Quality Act; CFR=Code of Federal Regulations; CRHR=California Register of Historical Resources; CRMMP=Cultural Resource Mitigation and Management Plan; RL=effects range low; FR=*Federal Register*; MM=mitigation measures; PRC=Public Resources Code; SANDAG=San Diego Association of Governments; SOI=Secretary of Interior; TCR=Tribal Cultural Resources; TDM=transportation demand management; USFWS=United States Fish and Wildlife; U.S.=United States; VMT=vehicle miles traveled; WOS=Waters of the State; WOUS=Waters of the United States



1 Introduction

1.1 Project Overview

The proposed Wetland Mitigation Bank at Pond 20 and Port Master Plan Amendment (PMPA) Project (project or proposed project) includes the creation of a wetland mitigation bank and the incorporation of the mitigation bank parcel and three adjacent parcels into the San Diego Unified Port District (District) Port Master Plan (PMP). This environmental impact report (EIR) includes both a project-level and program-level analysis, as described below.

1. **Project Level.** The District is proposing the creation of a wetland mitigation bank within a portion of District-owned property, which was historically used as a salt evaporation pond (Bank Parcel). The project includes associated construction and long-term operation and maintenance activities of the mitigation bank. The District is proposing a PMPA to incorporate the Bank Parcel into the District's PMP and assign a land use designation of wetlands. The wetlands designation is used for undeveloped lands having high biological productivity and, as recognized by the PMP, may include areas designated for mitigation or areas identified for potential wetland enhancement, restoration, and/or creation opportunities. The creation of the wetland mitigation bank, as well as the incorporation and land use designation of the Bank Parcel into the PMP through a PMPA, will be evaluated at a project level in the EIR.
2. **Program Level.** As part of the PMPA, the District is proposing to incorporate Parcels A, B, and C into the District's PMP and assign land use designations. Parcels A, B, and C are District-owned property; however, currently these areas are not formally incorporated into the PMP. Parcels A, B, and C would be assigned a commercial recreation land use designation. Incorporation of Parcels A, B, and C into the PMP will be evaluated at a program level in the EIR because the specific details of future development, if any, are not currently known.

In addition to the project overview provided above, this introduction chapter briefly discusses the following:

- The purpose of CEQA and this EIR
- The intended uses of this EIR
- The scope and content of this EIR
- The Draft EIR process, including public availability
- The organization of this EIR

1.2 Purpose of CEQA

The purpose of an EIR is to evaluate the environmental effects of a proposed project in compliance with CEQA (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations [CCR], Title 14, Section 15000 et seq.). This EIR has also been prepared in compliance with the District standards for CEQA compliance (Resolution 97-191). CEQA was enacted by the California legislature in 1970 and has the following four basic purposes:

1. Inform governmental decision makers and the public about the potential significant environmental effects of proposed activities.
2. Identify 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 intended to meet the four basic purposes described above. In instances where significant impacts cannot be avoided or mitigated, the project may nonetheless be carried out or approved if the approving agency finds that economic, legal, social, technological, or other benefits outweigh the project's unavoidable significant environmental impacts.

1.3 Intended Uses of the Environmental Impact Report

All discretionary projects in the State of California are required to comply with CEQA if implementation of the project has the potential to result in either a direct physical change to the environment or a reasonably foreseeable indirect physical change to the environment. More specifically, a project requires environmental review if it incorporates a discretionary action undertaken by a public agency. Discretionary actions are activities that are supported in whole, or in part, through public agency contracts, grants, subsidies, etc.; or activities requiring a public agency to issue a lease, permit, license, certificate, or other entitlement. If the project may have a significant impact on any environmental resource, an EIR must be prepared.

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

1.3.1 Agencies Expected to Use this Environmental Impact Report

The District is the CEQA lead agency, as defined under CEQA Guidelines Section 15050, 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 EIR. The Board of Port Commissioners (BPC), 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 CEQA Guidelines Section 15090-15093, prior to project approval.

The BPC is also responsible for approval of the PMPA and Coastal Development Permit (CDP). If the BPC approves the PMPA, the California Coastal Commission (CCC) will then consider whether to certify the PMPA. The CCC, as a CEQA responsible agency, would use the EIR in making its decision whether to certify the PMPA. If the PMPA is fully certified by the CCC, the BPC would consider approval of a non-appealable CDP for the wetland mitigation bank, pursuant to Section 30715 of the California Coastal Act (CCA). Future development on Parcels A, B, and C would also require a CDP; however, specific details of any future development is currently unknown, and, depending on the type of development proposed, the CDP may be appealable or non-appealable.

The City of San Diego will consider the proposed project as it relates to the issuance of ministerial permits, such as building permits. However, because these actions are not discretionary actions, the City of San Diego is not considered a responsible agency.

Table 1-1 provides a summary list of the approvals and permits anticipated to be required.

Table 1-1. Project Approvals and Permits

Action	Approving Agency
<i>State and Local Agencies – Wetland Mitigation Bank and Parcels A, B, and C</i>	
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
Adoption of Port Master Plan Amendment	District
Certification of Port Master Plan Amendment	CCC
Non-appealable CDP for wetland mitigation bank	District
CDP (appealable or non-appealable) for Parcels A, B, and C	District
Construction General Permit and Section 401 Permit	SWRCB
National Pollutants Discharge Elimination System Permit	RWQCB
Issuance of Ministerial Permits (e.g., building permits)	City of San Diego
General Bridge Act of 1946 Bridge Permit	U.S. Coast Guard
Lake and Streambed Alteration Agreement	CDFW
Fugitive Dust Control Plan and Authority to Construct	SDAPCD
Encroachment permit and permit for haul trucks	Caltrans

Table 1-1. Project Approvals and Permits

Action	Approving Agency
Federal Agencies – Berm Breach Site Only	
Special Use Permit	USFWS
NEPA – FONSI for Environmental Assessment	USFWS
Section 106 of NHPA	SHPO
CWA Section 404 Permit, Nationwide Permit 27 - Aquatic Habitat Restoration, Enhancement, and Establishment Activities	ACOE
Federal Coastal Consistency Certification	CCC

Notes:

ACOE=United States Army Corps of Engineers; Caltrans=California Department of Transportation; CCC=California Coastal Commission; CDFW=California Department of Fish and Wildlife; CDP=Coastal Development Permit; CWA=Clean Water Act; FONSI=Finding of No Significant Impact; NEPA=National Environmental Policy Act; NHPA=National Historic Preservation Act; RWQCB=Regional Water Quality Control Board; SDAPCD=San Diego County Air Pollution Control District; SHPO=State Historic Preservation Officer; SWRCB=State Water Resources Control Board; U.S.=United States; USFWS=United States Fish and Wildlife Service

1.3.2 Project and Program Level CEQA Analysis

The proposed project includes two primary components, both of which are evaluated in this EIR. While the proposed project is evaluated as a whole because one PMPA is proposed, the level of analysis varies for the two components, as described below.

The **project-level** analysis component of the proposed project is the creation of a wetland mitigation bank and incorporation of the Bank Parcel with the land use designation of wetlands into the PMP as an amendment. The Bank Parcel is owned by the District; however, the parcel is not yet incorporated into the PMP. Sufficient details are provided in this EIR to analyze the construction and operation activities of the wetland mitigation bank at a project level, including 30 percent design plans, construction equipment, and construction duration.

The **program-level** analysis component of the proposed project is to incorporate Parcels A, B, and C into the District’s PMP and assign a land use designation of commercial recreation. Similar to the Bank Parcel, Parcels A, B, and C are District owned; however, these areas are not yet incorporated into the PMP. Under the proposed commercial recreation land use designation, Parcels A, B, and C may be developed with commercial land uses. However, no development plans have been developed at this time, and no construction activities are proposed on these parcels. The program-level analysis considers the environmental effects from implementing a reasonable commercial development scenario on all three parcels.

The lack of details regarding construction or operation of any development or restoration on Parcels A, B, and C may not permit a full and complete environmental impact assessment of these parcels at the time of this EIR’s preparation. Correspondingly, approval and certification of the program-level components of this EIR may not allow the District to implement commercial development. Further CEQA review may be required when a specific development is proposed for Parcels A, B, and C, which establishes a sufficient level of detail to be evaluated at a project level.



Development of Parcels A, B, and C would be subject to additional environmental review pursuant the CEQA Guidelines Section 15168(c). If the later activity would have effects that were not examined in the program EIR, the required CEQA compliance documentation for these actions may be in the form of an addendum, negative declaration (mitigated), or subsequent/supplemental EIR that would use this EIR as a first tier level document in accordance with CEQA Guidelines Section 15168. This program-level analysis is intended to streamline future CEQA approvals and reduce future paperwork.

1.4 Scope and Content of the Environmental Impact Report

As the CEQA lead agency, the District is responsible for determining the scope and content of this EIR, a process referred to as scoping. As a result 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 June 20, 2019, the District posted a Notice of Preparation (NOP) with the County of San Diego County Clerk in accordance with Section 15082 of the CEQA Guidelines.

The NOP was mailed to 360 recipients, including public agencies, organizations, and other interested individuals to solicit their comments on the scope and content of the environmental analysis. A summary of the NOP was posted on the District's website, and made available to the public at the Office of the District Clerk and County of San Diego County Clerk's office. A public scoping meeting was held on July 10, 2019, at the Dempsey Center at 950 Ocean Lane, Imperial Beach, California 91932.

Comments received in response to the NOP were used to determine the scope of this EIR. The comments are summarized in Table 1-2. 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 EIR analyzes the effects associated with the following resources.

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services
- Transportation
- Tribal Cultural Resources

- Utilities and Service Systems

The Initial Study (IS) prepared for the proposed project (Appendix A) determined the project would not result in potentially significant impacts related to agriculture and forestry resources, mineral resources, population and housing, recreation, and wildfire. Section 5.4, Effects Found Not to be Significant, includes a brief analysis that demonstrates why potential impacts on these environmental resources would not be significant.

1.4.1 Comments Received in Response to the Notice of Preparation

A total of nine comment letters responding to the NOP were received during the NOP comment period and scoping meeting. A follow up letter from California Department of Transportation (Caltrans) was received on May 1, 2020. Table 1-2 summarizes each comment and the location in the EIR where the subjects are addressed. Appendix A includes a complete copy of the NOP and each comment letter.

Table 1-2. Notice of Preparation Comment Letters

Commenter	Environmental Topic	Location Where Addressed in EIR
Agency		
County of San Diego Department of Environmental Health, Sharon Preece, Supervising Environmental Health Specialist, HMD	An HMBP must be developed if hazardous materials are handled or stored at the project site above HMBP thresholds.	Section 3.8 Hazards and Hazardous Materials
	All construction waste materials must have a proper waste determination and classified, labeled, handled, stored, and disposed of in compliance with state and county regulations.	Section 3.8 Hazards and Hazardous Materials
	If 1,320 gallons or greater of petroleum is stored onsite a SPCC Plan is required.	Section 3.8 Hazards and Hazardous Materials
	If soil and/or groundwater contamination containing a hazardous substance is discovered during construction activities, the District has to report the release to the County of San Diego HMD.	Section 3.8 Hazards and Hazardous Materials
	Any proposed activities during construction or operation of the project involving hazardous materials will require the operator to update the facility's Unified Program Facility Permit through California Environmental Reporting System and comply with state/local laws and regulations.	Section 3.8 Hazards and Hazardous Materials
	The HMD has the authority to regulate facilities that handle or store hazardous materials and/or generate or treat hazardous waste.	Section 3.8 Hazards and Hazardous Materials
U.S. Department of the Interior, Fish and Wildlife Service,	Fluvial Hydrology Modeling - Flood and erosion impacts should be evaluated both up and downstream of the Otay River and Nestor Creek.	Section 3.9 Hydrology and Water Quality Appendix K – Hydrodynamic Modeling Report



Table 1-2. Notice of Preparation Comment Letters

Commenter	Environmental Topic	Location Where Addressed in EIR
Andrew Yuen, Project Leader	Tidal Hydrology - Modeling should be conducted to evaluate the extent of change in tidal velocities.	Section 3.9 Hydrology and Water Quality Appendix K – Hydrodynamic Modeling Report
	Water Quality – Evaluate the potential for short-term impacts to water quality during construction.	Section 3.9 Hydrology and Water Quality Appendix K – Hydrodynamic Modeling Report
State of California – Natural Resources Agency, CDFW, Gail Sevens, Environmental Program Manager, South Coast Region	The District opted not to include CDFW in the formal process to have CDFW be a signatory to the BEI.	—
	The EIR should identify the full suite of species observed. If any project activities result in the take of a species designated as endangered, threatened, or a candidate species under CESA, take authorization for CEQA-listed species prior to project implementation is recommended. This may include an ITP.	Section 3.3 Biological Resources Appendix E – Biological Technical Report
	CDFW is concerned about eelgrass (<i>Zostera marina</i>) and mitigation measures may be required	Section 3.3 Biological Resources
	CDFW has responsibility for wetland and riparian habitat and discourage development in wetlands or the conversion of wetlands to uplands. A jurisdiction delineation should be included in the EIR. The project applicant must provide written notification to CDFW for activities in streams and/or lakes that will diver or obstruct the natural flow. CDFW will determine if a Lake and Streambed Alteration Agreement is required.	Section 3.3 Biological Resources Appendix E – Biological Technical Report
	The EIR should contain a complete discussion of the purpose and needs for, and description of, the proposed project and a range of feasible alternatives should be fully considered and evaluated.	Chapter 2 Project Description Chapter 6 Alternatives
	CDFW provides recommendation for a complete assessment of the flora and fauna in the project vicinity.	Section 3.3 Biological Resources
	CDFW provides recommendation for a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources.	Section 3.3 Biological Resources Chapter 4 Cumulative Impacts
	CDFW provides recommendation for mitigation for the project-related biological impacts, including rare natural communities and nesting birds.	Section 3.3 Biological Resources

Table 1-2. Notice of Preparation Comment Letters

Commenter	Environmental Topic	Location Where Addressed in EIR
City of San Diego, Heidi Vonblum, Program Manager, Planning Department	The project sites are located within the City of San Diego's Multi-Habitat Planning Area boundary of the MSCP. The EIR should include a discussion of the Multi-Habitat Planning Area.	5.0 Additional Consequences of Project Implementation
	The City of San Diego has developed general guidelines for the Otay Mesa and Otay River Valley areas that should be discussed in the EIR.	5.0 Additional Consequences of Project Implementation
	The EIR should include MSCP consistency analysis.	5.0 Additional Consequences of Project Implementation
	The project site is within the City of San Diego Otay Mesa-Nestor Community Planning Area and the Special Study Area of the planning area. The EIR should include analysis of consistency between the proposed project and the Otay Mesa-Nestor Community Planning Area, including the Special Study Area intent and criteria and supported uses.	Section 3.10 Land Use and Planning
	Consider alternative use of all or portions of Parcels A, B, and C for passive and/or active recreation purposes.	6.0 Alternatives
	The San Diego Police Department provided information about the station that would provide service, current staffing, current response times, and potential mitigation measures to response time.	Section 3.12 Public Services
	The PUD identified a 30-inch trunk sewer pipeline and associated easement within the project site and request the District include this sewer pipe in the EIR.	Section 3.15 Utilities and Service Systems
	The PUD provided a figure with additional facilities in the project vicinity and request the District coordinate with the City to ensure no damage will occur to the City's utilities.	Section 3.15 Utilities and Service Systems
California Department of Conservation Division of Oil, Gas, and Geothermal Resources, Curtis M. Welty, PG, Associate Oil and Gas Engineer	If any wells, including plugged, abandoned, or unrecorded wells, are damaged or uncovered during excavation or grading, remedial plugging operations may be required, and the Division should be contacted.	—
Caltrans, District 11, Maurice Eaton, Branch Chief, Local Development and	A traffic impact study is necessary to determine the project's near-term and long-term impacts to state facilities and to propose appropriate mitigation measures.	Section 3.13 Transportation



Table 1-2. Notice of Preparation Comment Letters

Commenter	Environmental Topic	Location Where Addressed in EIR
Intergovernmental Review Branch	Provide hydraulics studies, drainage and grading plans to Caltrans for review	—
	In support of the Complete Streets program, Caltrans encourages the District to coordinate with Caltrans.	—
	A traffic control plan must be submitted to Caltrans District 11 at least 30 days prior to the start of any construction.	Section 3.13 Transportation
	Mitigation measures should be identified to eliminate or reduce potential significant impacts to a level less than significant.	Section 3.13 Transportation
	Any work performed within Caltrans ROW will require discretionary review and approval by Caltrans and an encroachment permit will be required for any work within the Caltrans ROW prior to construction.	Section 3.13 Transportation
Caltrans, District 11, Maurice Eaton, Branch Chief, Local Development and Intergovernmental Review Branch	Recommends the EIR identify and assess potential impacts caused by the project or impacts from mitigation efforts that occur within the Caltrans ROW that includes impacts to the natural environment, infrastructure, and appurtenant features.	Section 3.3 Biological Resources Section 3.13 Transportation
	A VMT based transportation study should be prepared for the project	Section 3.13 Transportation Appendix N1 Transportation Impact Study
Native American Heritage Commission, Cultural and Environmental Department, Steven Quinn, Associate Governmental Program Analyst	Recommends consultation with California Native American tribes that are affiliated with the geographic area of the proposed project as early as possible.	Section 3.4 Cultural Resources Section 3.14 Tribal Cultural Resources
	Provide the requirements of AB 52 and SB 18	Section 3.4 Cultural Resources Section 3.14 Tribal Cultural Resources
Individuals		
Michael Williams	Concern about the lack of financial benefit for the District and cities and provides an outline for a concept plan for the area.	6.0 Alternatives

Table 1-2. Notice of Preparation Comment Letters

Commenter	Environmental Topic	Location Where Addressed in EIR
Jacklyn Farrington	Request restoration of Parcel A, concern about flooding, and noise and dust mitigation.	3.8 Hazards and Hazardous Materials 3.9 Hydrology and Water Quality 3.11 Noise

Notes:

AB=Assembly Bill, BEI=Banking Enabling Instrument; Caltrans=California Department of Transportation; CDFW=California Department of Fish and Wildlife; CESA=California Endangered Species Act; EIR=environmental impact report; HMBP=Hazardous Materials Business Plan; HMD=Hazardous Materials Division; ITP=Incidental Take Permit, MSCP=Multiple Species Conservation Program; PUD=Public Utilities Department; SPCC=Spill Prevention Control and Countermeasure; SB=Senate Bill; VMT=vehicle miles traveled

1.5 Draft Environmental Impact Report Processing

The Draft EIR will be distributed to the State Clearinghouse, responsible agencies, interested agencies, stakeholder organizations, and individuals for a 45-day review period in accordance with CEQA Guidelines Sections 15087 and 15105. This distribution ensures that interested parties have an opportunity to express their views regarding the environmental impacts of the project and to ensure that information pertinent to permits, authorizations, and discretionary approvals is provided to decision makers, lead agencies, and CEQA-responsible agencies. This document is available for review by the public at the District’s office during normal business hours. The document will also be available on the District’s website.

Written comments may be submitted to the District during the 45-day public review period, which ends at 5:00 p.m. on October 5, 2020 for the Draft EIR at the address below:

San Diego Unified Port District
 Planning Department
 Attn: Lily Tsukayama, Associate Planner
 3165 Pacific Highway
 San Diego, CA 92101
 or emailed to: Itsukayama@portofsandiego.org

All comments on the Draft EIR will be addressed in writing in a Responses to Comment document that, together with the Draft EIR and any revisions to the Draft EIR, will constitute the Final EIR. The District and other state, regional, and local agencies will rely on this information presented in the Final EIR to inform decision making regarding the issuance of permits related to construction and operation of the proposed project, as described in Section 1.3.1.

1.6 Organization of the Draft Environmental Impact Report

The content and format of this EIR meets the current requirements of CEQA and the CEQA Guidelines. This EIR is organized into the following chapters with supporting technical appendices so the reader can easily obtain information about the proposed project and its specific issues.



Executive Summary: This chapter provides a summary of the potential impacts, mitigation measures of the proposed project and impact conclusions, and a summary of alternatives to the proposed project. Areas of controversy and issues to be resolved are also discussed.

Chapter 1 – Introduction: This chapter describes the purpose and use of the EIR and the organization of the EIR. This section provides a description of the NOP and scoping process. A list of environmental topics addressed in the EIR is provided.

Chapter 2 – Project Description: This chapter describes the existing physical conditions of the project site, as well as past and current operations of the site. This section provides a detailed description of the proposed project, project components, and discretionary actions, as well as identifies the overall objectives for the proposed project.

Chapter 3 – Environmental Impact Analysis: This chapter presents the existing environmental setting and conditions, regulatory environment, methods and assumptions used in the impact analysis, thresholds for determining significance, potential impacts that would result from project implementation, mitigation measures that would eliminate or reduce significant impacts, and the level of significance of each impact area after implementation of mitigation for each environmental resource area identified to have potentially significant impacts.

Chapter 4 – Cumulative Impacts: This chapter identifies past, present, and reasonably foreseeable future projects with related impacts within the defined cumulative study area. The purpose of this section is to identify whether a cumulatively significant impact would occur and whether or not the contribution of the proposed project would be cumulatively considerable. If a cumulatively considerable impact would occur, feasible mitigation measures that would eliminate or reduce the proposed project's contribution to a cumulatively considerable impact are provided.

Chapter 5 – Additional Consequences of Project Implementation: This chapter identifies growth-inducing impacts, significant irreversible environmental changes associated with project implementation, and a brief discussion of the environmental resource impacts found not to be significant.

Chapter 6 – Alternatives: This chapter evaluates a reasonable range of alternatives to the proposed project, including the No Project Alternative, and compares the significant environmental impacts of alternatives to the proposed project. Additionally, this section identifies an environmentally superior alternative.

Chapter 7 – List of Preparers and Agencies Consulted: This chapter identifies the individuals involved in preparing this EIR and the agencies, organizations, and persons consulted.

Chapter 8 – References: Provides a comprehensive listing by chapter of all references cited in this EIR.

Appendices: Includes all NOP comment letters received, the project's IS and Environmental Checklist, the PMPA, and all technical reports prepared for the project and other background or technical detail pertinent to this EIR.

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2 Project Description

This chapter begins by providing the project location and environmental setting, followed by a description of the project. This chapter defines the goals and objectives of the project and provides details regarding the individual components that together comprise the project, including the project-level environmental evaluation of the proposed wetland mitigation bank and PMPA and its associated actions for the Bank Parcel and the program-level evaluation of the PMPA and its associated actions for Parcels A, B, and C. This chapter also identifies the discretionary approvals required for project implementation.

2.1 Project Location

The project site consists of approximately 95 acres of San Diego Unified Port District- (District) owned and federally-managed land located in the City of San Diego, east of the City of Imperial Beach and south of the confluences of Nestor Creek, Otay River, and San Diego Bay (Figure 2-1). The project site is located within the Imperial Beach United States [U.S.] Geological Survey (USGS) 7.5-minute quadrangle and is entirely within the Coastal Zone.

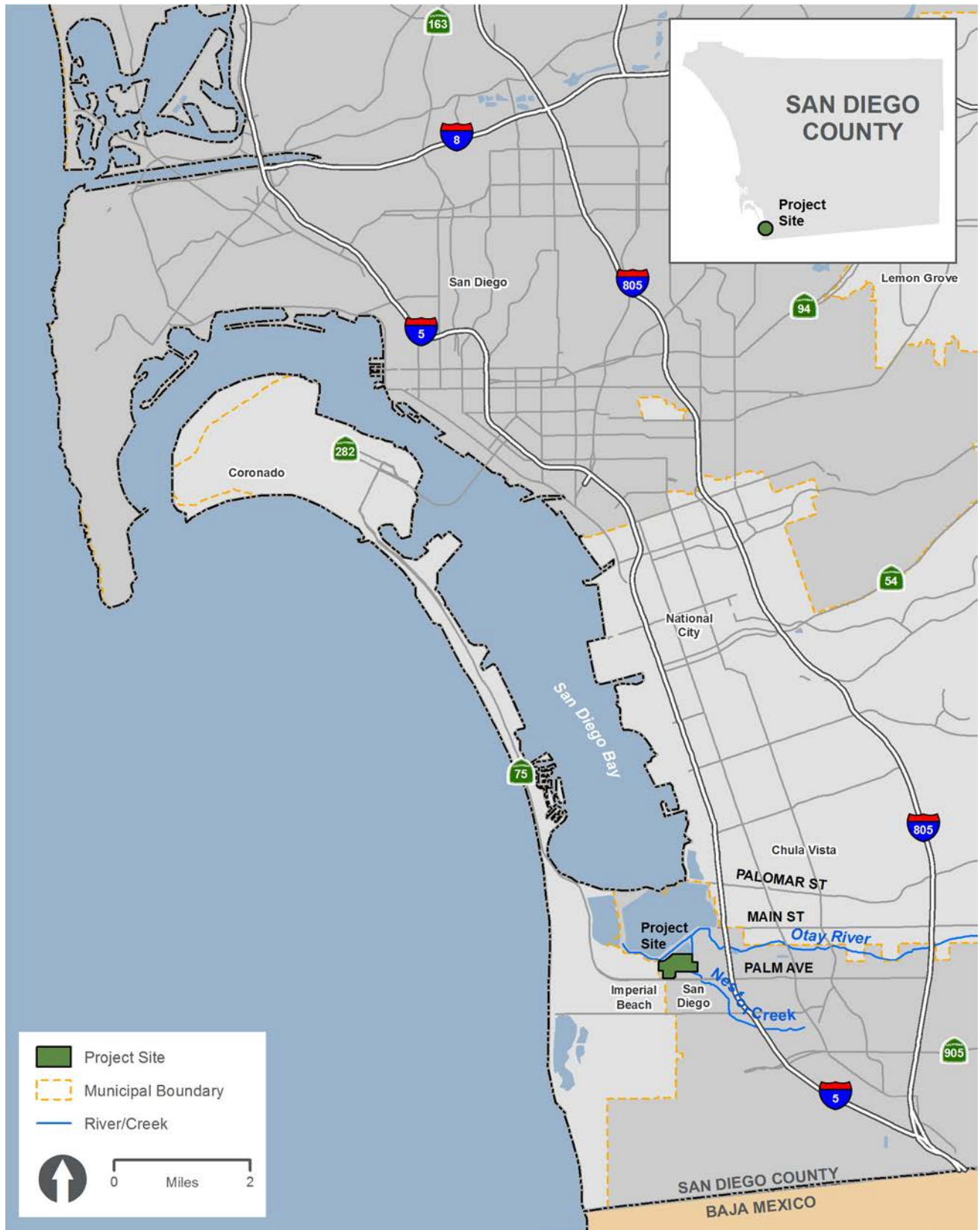
There is no official address for the project site; however, it is located immediately north of Palm Avenue (State Route [SR] 75), south of the San Diego Bay National Wildlife Refuge (NWR) South San Diego Bay Unit managed by U.S. Fish and Wildlife Service (USFWS), east of 13th Street, west of 16th Street, and southwest of Otay Valley Regional Park. I-5 is located approximately 1 mile east of the project site (Figure 2-2).

The project site is composed of six parcels of land identified as Assessor's Parcel Numbers:

- 616-020-(08/12)
- 616-021-08
- 616-021-09 (portion)
- 621-020-(04/08)

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Figure 2-1. Regional Location and Project Vicinity



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Figure 2-2. Project Site Characteristics



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2.2 Environmental Setting

2.2.1 Project Background

San Diego Unified Port District

The District was created by the San Diego Unified Port District Act (Port Act) adopted by the California State Legislature in 1962, as amended through 2018. The Port Act recognized the Public Trust Doctrine and states that tidelands and submerged lands under the District's management are to be used only for statewide public purposes. To this end, the District is charged with management of the tidelands and submerged lands and diverse waterfront uses along San Diego Bay to promote commerce, navigation, fisheries, recreation, and environmental stewardship on the granted lands.

Project Site Background

The project site was purchased by the District in 1998 from Western Salt Company (WSC) as part of a 1,400-acre land acquisition. The majority of the purchase was transferred to the California State Lands Commission to satisfy mitigation requirements for the Lindbergh Field Airport Terminal 2 expansion. The State Lands Commission entered into a 49-year lease, with an option to automatically extend for an additional 66 years, with the USFWS to create the South San Diego Bay Unit of the NWR. However, effective January 1, 2020, this area was transferred to the District's jurisdiction per Senate Bill (SB) 507, which granted and conveyed in trust to the District all rights, title, and interest in certain tidelands and submerged lands, as enumerated in SB 507. After the San Diego County Regional Airport Authority became a separate agency from the District in 2003, the District retained ownership rights to the project site, as provided in the California SB 1896 (2002), with the charge of utilizing the project site for future development, subject to the Public Trust.

Pond 20

The project site historically supported wetland habitats until at least 1870 (Grossinger et al. 2011). The salt evaporation and extraction industry began operations in South San Diego Bay in the early 1870s. WSC acquired the project site in the 1890s and created a large complex of networked condensation and crystallization salt evaporation ponds in South San Diego Bay (salt works facility). Berms were constructed around Pond 20, and a thick impermeable clay layer was placed to hold water and prevent leaching of water from the pond. The berms and thick clay layer are largely intact today.

In 1916, the Savage Dam failed and released water from Lower Otay Lake to the lower watershed, which washed away several berms within the salt works facility, including Pond 20, and deposited substantial volumes of sediment within Pond 20. The salt works facility was restored and operational by 1918. While WSC still operates in South San Diego Bay, Pond 20 has not been utilized as an evaporation pond since the 1960s. The high elevation, inland location, and distance from other ponds made Pond 20 logistically and economically inefficient due to the increasing cost to pump water.

Ponded water left from the salt evaporation operation has evaporated, and Pond 20 is currently empty with a thick crust of salt precipitate. Portions of Pond 20 collect and hold rainwater for weeks or months after rain events. However, rain-event water is not present year-round.

The District owns the southern portion of Pond 20 and the northern portion is managed by USFWS. As shown on Figure 2-3, the Pond 20 berms surround both District-owned and USFWS-managed land.

There are several easements on the project site:

- San Diego Gas and Electric (SDG&E) line easement on the southeast portion of the project site
- Palm City Sanitation District 20-foot-wide easement for sewer ditches and pipelines on the southeast portion of the project site
- City of San Diego sewer line easement on the southeast portion of the project site

Figure 2-3. Pond 20 Boundary



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2.2.2 Project Site

The project site is divided into three main areas, as shown on Figure 2-2 and in Table 2-1: the Bank Parcel, Parcels A, B, and C, and the berm breach location. The Bank Parcel is 83.5 acres and contains the southern portion of the former salt evaporation pond known as Pond 20. The Bank Parcel extends beyond the existing salt pond berms to also include Nestor Creek and the Otay River Tributary. The Wetland Mitigation Bank at Pond 20 (Bank Site) would be developed within the existing Pond 20 berms within the Bank Parcel. Parcels A, B, and C are immediately adjacent to the Bank Parcel but entirely outside the Pond 20 berms. Representative site photographs are depicted on Figure 2-5 through Figure 2-10.

Table 2-1. Project Site Parcels

Parcels	Acreage
Bank Parcel*	83.47
Parcel A	2.67
Parcel B	0.99
Parcel C	7.98
Berm Breach	0.33
Total	95.44

Notes:

* The Bank Site is entirely within the Bank Parcel

Bank Site

The approximately 80-acre Bank Site is entirely within the 83.47-acre Bank Parcel. The Bank Site consists of disturbed upland salt flats and isolated hypersaline pools perched on fill material. The Bank Site is hydrologically isolated from surface water flows within San Diego Bay, Nestor Creek, Otay River, and the Otay River Tributary because of the earthen berms that surround the Bank Site, which were built to hold and evaporate water, which enable salts to concentrate. Therefore, the Bank Site does not support U.S. Army Corps of Engineers (ACOE) jurisdictional wetland and non-wetland habitats (Appendix C). Additionally, salt concentrations are too high to support benthic invertebrates or vegetation, which form the basis of many intertidal ecological systems.

Earthen berms are located along the western and eastern borders of the Bank Site, and an embankment is located on the southern edge of the project site along Palm Avenue. A stormwater outfall enters the southwest corner of the Bank Parcel from Palm Avenue. The Otay River Tributary is located on the west side of the Bank Site, and Nestor Creek is on the east side. The Otay River Tributary and Nestor Creek are within the Bank Parcel but would not be included in the mitigation bank. Rather, these areas would function as a buffer to provide protection to the mitigation bank from outside disturbances.

Parcels A, B, and C

Parcel A is located west of the Bank Parcel, Parcel B is on the east side of the southern portion of the Bank Parcel bordered by Palm Avenue, and Parcel C is located east of the Bank Parcel. Parcels A, B, and C encompass 11.64 acres. These parcels are outside of the earthen berms that surround Pond 20 and do not include the natural surface water features of Nestor Creek and the Otay River Tributary.

Parcel A is 2.67 acres and is located west of the Otay River Tributary and varies in elevation from the low-lying tributary to a low hill in the west/center of the parcel, over 14 feet high. Parcels B and C are generally higher in elevation than Pond 20 (11 – 14 feet high) and flat and appear to be mowed regularly. The southern portion of Parcel B is a paved and fenced vacant lot. Parcel B is 1 acre and Parcel C is 8 acres. All three parcels are predominately comprised of non-native grasslands. 0.90 acre of jurisdictional wetlands were delineated in the Otay River tributary and 0.51 acre in Nestor Creek, which are adjacent to Parcels A and C. There are 0.22 acre of non-wetland Waters of the U.S (WOUS) and 0.35 acre of wetland WOUS located within Parcel A.

Berm Breach

The berm breach location is located at the northwest corner of the Bank Site where the Otay River Tributary and Otay River converge. The berm breach location is 0.33 acre and is partially within the San Diego Bay NWR. The berm breach location includes a portion of the Pond 20 perimeter berm and extends into the Otay River Tributary and the Otay River. The breach site contains WOUS, Waters of the State (WOS), CCC jurisdictional wetlands, and potential California Department of Fish and Wildlife (CDFW) regulated streambed.

Figure 2-4. Representative Site Photos Locations



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Figure 2-5. Location 1: Berm Breach Location and Confluence of the Otay River and Otay River Tributary (North)



Figure 2-6. Location 2: Existing Perimeter Berm, Nestor Creek, and Parcel C (North)



Figure 2-7. Location 3: Parcel B (South)



Figure 2-8. Location 4: Southwest Corner of Bank Site inside Existing Berm (North)



Figure 2-9. Location 5: Northwest Corner of Bank Site South of Berm Breach Location (South)



Figure 2-10. Location 6: North Edge of Parcel B (Northwest)



2.2.3 Surrounding Land Uses

The project site is vacant and surrounded by residential, commercial, and recreational land uses. Immediate surrounding land uses include the following:

- **North:** San Diego Bay NWR and the ORERP site, the Western Salt Segment of the Bayshore Bikeway, Otay River, and San Diego Bay
- **South:** Amigo's Tire Shop, Bayside Palms Mobile Home Villages, Apache Trailer Lodge, Public Storage facility, Prime Inn San Diego, and other commercial uses accessible from westbound Palm Avenue; Santana's 24-hour drive-thru restaurant, the Capri Lodge Mobile Home Park, and other commercial uses accessible from eastbound Palm Avenue
- **East:** Otay Valley Regional Park, City of San Diego Otay River Pump Station, and Imperial Sands Mobile Home Park
- **West:** Bikeway Village mixed-use development and single-family residences on the west side of 13th Street; Bayside Villas Condominiums, Soapy Joe's Car Wash, and Auto Zone also west and south of the project site

North of the project site is the channelized Otay River, which flows east to northwest where it enters San Diego Bay. Running parallel to the Otay River, north of the Bank Site, is the Western Salt Segment of the Bayshore Bikeway (Figure 2-5). The bikeway crosses the Otay River northwest of the Bank Site along an old railroad bridge. The Bikeway Village mixed-use development, located at the northern end of 13th Street, immediately adjacent to the northwest corner of the project site, was recently completed. Two surface water features, Nestor Creek and the Otay River Tributary, run north to south outside the eastern and western berms of the Bank Site, respectively (Figure 2-6). The City of San Diego's Otay River Pump Station and the Otay Valley Regional Park are also immediately adjacent to northeast corner of the project site.

Otay River Estuary Restoration Project

The ORERP is a planned mitigation project (not a part of the proposed project) developed to offset impacts on marine organisms caused by the Poseidon Water Resources Desalination Facility located in Carlsbad, California. The ORERP site is located north, adjacent to the Bank Parcel within the San Diego Bay NWR under the jurisdiction of USFWS, and comprises the northern portion of Pond 20. The ORERP is being implemented by the Poseidon Water Resources Desalination Facility, in partnership with USFWS. USFWS prepared the ORERP Final Environmental Impact Statement (EIS) in February 2018, with the Record of Decision (ROD) issued in October 2018.

2.3 Project Objectives

The basic project objectives of the proposed project include the following:

- Incorporate the Bank Parcel into the PMP and assign a land use designation to be compliant with the Port Act and CCA
- Create a wetland mitigation bank that produces revenue by offering the business community and government agencies the opportunity to purchase predeveloped wetland mitigation credits to mitigate project impacts on wetland habitat



- Enhance ecological functions at the Bank Parcel by providing forage and nesting habitat for native bird species and habitat for native fish species while also creating additional environmental co-benefits such as, but not limited to, carbon sequestration, nutrient cycling, and water quality filtration
- Reduce the chance and scale of flooding within the surrounding off-site area through the Bank Parcel under the existing condition by designing greater capacity to contain stormwater and coastal waters within the Bank Parcel
- Establish tidal influence and create coastal wetlands by reconnecting the Bank Site to tidal flows from San Diego Bay
- Provide long-term protection for the Bank Site by reaching native vegetation coverage and sediment surface elevation success criteria, while providing access for long-term monitoring and restoration of wetlands, as needed
- Incorporate the District-owned Parcels A, B, and C into the PMP and assign a land use designation to be compliant with the Port Act and CCA
- Support economic development and community investment consistent with the District's adoption of BPC Policy No. 774 (i.e., the Pond 20 EDF)¹ (BPC 2015)
- Promote future development on Parcels A, B, and C that complements adjacent uses

2.4 Project Characteristics

The proposed project includes a project-level and program-level component, both of which are evaluated in this EIR. The proposed project is evaluated as a whole because the components are connected through the proposed PMPA; however, the level of analysis varies for the two components based on the level of detail known at this time. Details are provided below.

1. **Wetland Mitigation Bank at Pond 20 (Project-Level)** – The District is proposing the creation of a wetland mitigation bank within a portion of District-owned property, which was historically used as salt evaporation pond (Bank Parcel). The project includes associated construction and long-term operation and maintenance activities of the mitigation bank. The Bank Parcel is District-owned property. However, currently this area is not yet incorporated into the PMP. The District is proposing a PMPA to incorporate the Bank Parcel into the District's PMP, and assign a land use designation of wetlands. The wetlands designation is for undeveloped lands having high biological productivity and, as recognized by the PMP, may include areas designated for mitigation, or areas identified for potential wetland enhancement, restoration, and/or creation opportunities. The creation of the wetland mitigation bank, as well as the incorporation and land use designation of the wetland mitigation bank into the PMP, is evaluated at a project level in this EIR.

¹ Available at:

<https://pantheonstorage.blob.core.windows.net/administration/BPC-Policy-No-774-Pond-20-Economic-Development-Fund-EDF.pdf>

- 2. PMPA for Parcels A, B, and C (Program-Level)** – As part of the PMPA, the District is proposing to incorporate Parcels A, B, and C into the District's PMP and assign land use designations. Parcels A, B, and C are District-owned property; however, currently these areas are not yet incorporated into the PMP. Parcels A, B, and C would be assigned a commercial recreation designation. Incorporation of Parcels A, B, and C is evaluated at a program level because the specific details of any future development proposal is currently unknown. Reasonable development assumptions for these parcels are discussed in Section 2.4.3.

The proposed PMPA is provided as Appendix B to this EIR. Figure 2-11 depicts the primary project components, including the Bank Site and Parcels A, B, and C.

Figure 2-11. Primary Project Components



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2.4.1 Wetland Mitigation Bank at Pond 20

The proposed mitigation bank involves the creation, restoration, enhancement, and on-going maintenance and monitoring of tidal wetland habitat and upland buffer habitat. Implementation of the project would allow the District to establish a mitigation credit program that could compensate for future off-site impacts from other public and private development projects under Section 404 of the Clean Water Act (CWA), the CCA, the Porter-Cologne Water Quality Control Act, and the California Eelgrass Mitigation Policy. The credits available could be for the following habitats: high marsh, mid marsh, low marsh, intertidal mudflat, transitional habitat, and subtidal eelgrass habitat.

While the Bank Site itself is proposed to be approximately 80 acres, it is anticipated to provide approximately 76.48 acres of mitigation credit, including approximately 64.84 acres of subtidal and intertidal habitat establishment and 11.64 acres of transitional/upland buffer habitat restoration (Appendix C). The remaining Bank Site acreage consists of existing perimeter berms that would remain in place as additional buffer areas.

The proposed mitigation bank would complement surrounding land uses by expanding valuable wetland habitat adjacent to the San Diego Bay NWR, providing essential wetland functions and services for adjacent communities, including storm surge and flood protection and stormwater buffering. The vegetation would act as attractors for local wildlife, and the overall wetland establishment and enhancement would increase other values, including improved water quality. Additional value enhancements include creating habitat to support spawning and breeding for native fish and birds; this would have indirect benefits to the local bird-watching and fishing, as well as providing habitat to support diverse fish populations and community assemblages within San Diego Bay and across coastal Southern California.

Additionally, the District established the Pond 20 EDF in 2015, which requires the District to transfer all net revenue derived from the Bank Site to the EDF, which would then be equally divided between two sub-funds for designated projects in Imperial Beach and the adjacent portion of the City of San Diego's City Council District 8 (BPC 2015).

Key Restoration and Creation Elements

Restoration concept alternatives for the northern portion of Pond 20 (outside of District jurisdiction) were considered and evaluated in the San Diego Bay NWR Comprehensive Conservation Plan and Final Comprehensive Conservation Plan and EIS (USFWS 2006). USFWS is implementing the ORERP site in accordance with Alternative D (Expand Habitat Management, Enhance Nesting Opportunities, Maximize Habitat Restoration, and Provide Additional Public Use Opportunities), consistent with the ROD, signed September 29, 2006 (71 Federal Register [FR] 64552).

The proposed mitigation bank on the southern portion of Pond 20 owned by the District is being designed to be consistent with the wetlands and habitat to be created by the ORERP, with similar goals and objectives to protect, preserve, and facilitate establishment of habitats and species. Although the two restoration projects would be restored and operated independently of one another, the overall proximity of the two sites to the San Diego Bay NWR would increase habitat connectivity and contribute meaningful habitat and ecosystem services to the South San Diego Bay region.

The proposed project is designed to be a self-sustaining marsh habitat matrix. The primary hydrologic source for the Bank Site would be unobstructed tidal inflows from San Diego Bay and the Otay River, which passes through protected NWR lands before entering the Bank Site. The inlet below the

Bayshore Bikeway Bridge is approximately 70 feet wide and allows full passage of tidal flows under all tidal regimes. Additional water input to the Bank Site would come from precipitation and occasional stormwater inputs via internal loading and runoff from Palm Avenue. Tidal hydrology would be reestablished by breaching the Pond 20 northern perimeter berm. The District would excavate the Bank Site and a network of tidal channels to facilitate distribution of tidal flows to achieve inundation frequencies required by the following tidal open water, mudflat, and wetland habitat types:

- Intertidal mudflat habitat
- Low marsh habitat
- Mid-marsh habitat
- High marsh habitat
- Subtidal eelgrass

Additionally, restoration would include establishing a transition zone and upland habitats on the existing berms.

The District would install suitable native plant material and would salvage existing on-site native vegetation for reestablishment after construction of the mitigation bank. Using various protection, restoration, enhancement, and management strategies, the Bank Site would also provide ancillary habitat to support protected migratory and resident shorebird species and fishes in the region.

Figure 2-12 depicts the preliminary design plan for the Bank Site. Details on the construction-related activities required to create the mitigation bank are discussed in the Mitigation Bank Construction Activities section.

Figure 2-12. Preliminary Design Plan



Source: Appendix C of this EIR

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Berm Breach and Channel Modification

Bank Site Perimeter Berm

The former salt pond known as Pond 20 (ORERP site and District-owned Bank Site) is currently enclosed by an existing berm along the southern bank of the Otay River that isolates both project sites from receiving tidal flows (Figure 2-3). There is no natural separation between the ORERP site and Bank Site. As discussed in the ORERP Final EIS, the ORERP project plans to breach a berm to the San Diego Bay to allow tidal flow into that ORERP site. To prevent flooding within the Bank site, the ORERP Final EIS analyzes constructing a levee, in the form of an earthen berm, along the southern edge of the ORERP wetland restoration site to prevent tidal and/or flood waters from entering the Bank Site once construction at the ORERP site is complete. This would keep the Bank site dry once the ORERP site is operational. The National Environmental Policy Act (NEPA) compliance for construction and removal of the earthen berm was included in the ORERP Final EIS (Dudek 2018).

Although approval of ORERP occurred in October 2018, construction has not yet started. Therefore, considering the unknown construction schedule of ORERP, if needed, the proposed project would construct an earthen berm on the southern edge of the ORERP site as part of the proposed project to ensure tidal separation of the project sites. This berm allows for grading and dredging activities to occur for both projects independently while significantly reducing any potential for inundation to occur on the site that is completed last. Once both projects are constructed, the berm may be removed or left in place. The wetlands would function as intended with or without the berm.

Berm Breach

To reconnect tidal hydrology to the Bank Site, the existing berm surrounding Pond 20 would be breached. After the berm is breached, the network of constructed tidal channels would facilitate distribution of tidal flows to the Bank Site. The location of the berm breach, as depicted on Figure 2-12, was identified as the most efficient location. The berm breach is approximately 75 feet wide and would be partially within the San Diego Bay NWR (Assessor's Parcel Numbers 616-021-09).

United States Fish and Wildlife Service Special Use Permit

The earthen berm on the ORERP site and the berm breach component are on San Diego Bay NWR property and are, therefore, subject to a Refuge Special Use Permit, administered by the USFWS. Because USFWS approval is required for the berm breach, NEPA compliance is required. An Environmental Assessment/Finding of No Significant Impact (FONSI) would be prepared by USFWS as a separate action.

Mitigation Bank Construction Activities

The project would involve excavation, grading, and soil export activities to establish appropriate topographical conditions and tidal flows to support target marsh-plain elevations. The following construction related information for implementation of the mitigation bank was derived from the South San Diego Bay Wetland Mitigation Bank Final Prospectus (Appendix C), including the Draft Wetland Restoration of Salt Pond 20: Basis of Design Report prepared by Environmental Science Associates, October 2017.

Construction Sequencing

The primary construction phases that would be implemented to restore the Bank Site are detailed below.

- 1. Bank Site perimeter berm:** The District may construct an earthen berm on the southern edge of the ORERP wetland restoration site to prevent tidal and/or flood waters from entering the Bank Site during construction of the proposed project (Figure 2-11). The earthen berm would be constructed as described in the ORERP Final EIS (Dudek 2018). Approximately 20,000 cubic yards of excavated materials would be needed to construct the berm, which would be approximately 7 feet above existing site elevation (16 feet North American Vertical Datum of 1988 [NAVD88]).
- 2. Site excavation to marsh elevations:** Existing site elevations range between 6 – 12 feet NAVD88, and designed finished grades of the majority of the Bank Site fall between 5 – 7 feet NAVD88. Therefore, some areas would be excavated to a depth of approximately 0 – 6 feet to meet target elevations. Excavation equipment would include large machinery, such as scrapers and excavators.

The District would excavate approximately 430,000 cubic yards of soil, which would be disposed off site at an appropriate facility or transported off site for beneficial reuse within 30 miles. The design team estimates 25 percent expansion in volume, resulting in an estimated total haul volume of 537,500 cubic yards.

Locations that may receive export soils include:

- o Chula Vista Bayfront (3 to 8 miles north)
 - o Charles Company Salt Bay Design District (3 miles north)
 - o USFWS managed Pond 10 (1 mile west)
 - o Construction sites requiring fill material (within 30 miles)
 - o Appropriate landfill facility:
 - Miramar Landfill (23 miles north)
 - Sycamore Landfill (27 miles northeast)
 - Otay Landfill (8 miles east)
- 3. Excavate tidal channels:** The District would dredge tidal channels within the proposed marsh-plain to facilitate distribution of tidal flows throughout the Bank Site. Excavation of tidal channels and the new marsh-plain elevation would be completed prior to breaching the berm and allowing tidal waters to enter the site. Three channel sizes would be excavated throughout the Bank Site. The finished grade elevation at the top of all channels would be 2.9 – 5 feet NAVD88 to meet the mid-marsh plain, and all channels would increase in depth to -3.5 feet toward the breach to provide positive drainage throughout the Bank Site. Where channels overlap with existing borrow ditches, some fill material from site excavation could be placed to meet designed channel grades.
 - 4. Transition zone/upland grading:** To prevent erosion and provide refugia and a buffer zone around the wetland habitat, the District would establish a gently sloping transition zone around the marsh perimeter, between 6.5 – 10 feet NAVD88. The average slope in the 30 percent design transition zone is approximately 20:1 (horizontal: vertical). The site would be excavated

to meet elevations for each habitat. The upper limit (top of slope) would meet the perimeter berms or embankment, and the toe of slope would meet the marsh plain.

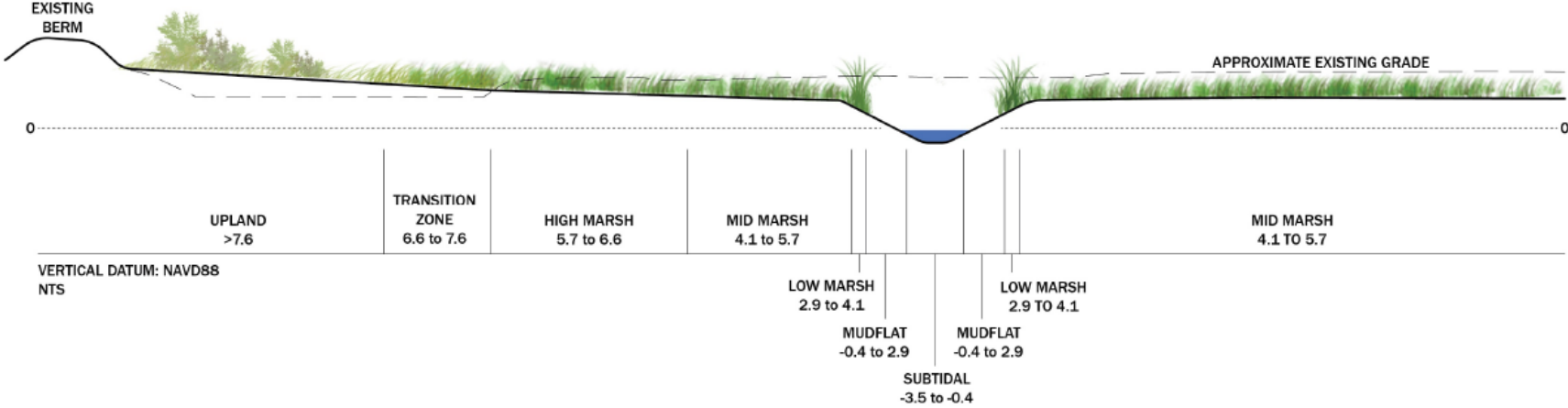
5. **Berm breach construction:** After interior site work is completed, the District would breach the berm located at the northwest corner of the Bank Site to connect the Bank Site to the San Diego Bay via the Otay River Tributary and Otay River. As currently designed, and subject to change during subsequent design phases, the breach would be approximately 75 feet wide at 5 feet NAVD88 and would have side slopes ratios between 3:1 and 4:1 (horizontal: vertical). The breach bottom would be 8 feet wide with an invert elevation of -3.3 feet NAVD88.
6. **Soil/sediment preparation:** Soil preparation may be required to support viable plant growth. This may involve ripping or disking compacted soil, as needed, to allow introduction of water, nutrients, and oxygen. Because precise elevations must be achieved for habitat establishment, and a slight expansion of material would result from ripping or disking the compacted soil, excavation depths would include over-excavation to offset expansion of materials resulting from decompaction activities. Soil sampling indicates that the Bank Site contains soils with high salinity and boron content, as well as low organic carbon. Soil conditioning, including leaching and incorporation of amendments, may be needed to provide a suitable growth medium. Installation of irrigation and plant materials would occur after these soil/sediment preparation activities are complete.
7. **Planting (revegetation):** Figure 2-13 provides an example of a typical wetland section. Sheet 14 of the 30 percent design drawings includes preliminary plant palettes for each proposed habitat type (Appendix C). Species were selected based on nativity, habitat value, and suitability to respective habitat type and elevation range. Planting would be phased and timed to minimize site disturbance and maximize plant survivability. Plant materials would be procured from reputable, qualified native plant nurseries and would meet quality control specifications prior to installation. Collecting stock (e.g., cordgrass and eelgrass) from adjacent tidelands or the San Diego Bay NWR may be needed. If this is the case, the District would coordinate with land managers as appropriate. Plant propagules (cuttings, seeds, and/or plugs) collected in the vicinity of the Bank Site may also be used to maintain genetic integrity or to obtain source plant material for propagation.

Plant material collection would be distributed over the present population to avoid overharvesting and damaging individual plants or the overall habitat. The design team anticipates installation of a combination of seed, plugs, and containerized plant stock that would be sized, distributed, and spaced, as appropriate. The planting approach would vary depending on habitat type and the District's desired rate of establishment. Relatively higher planting densities may be utilized at elevations that require longer periods to establish, such as mid and high marsh. To help expedite plant establishment, installation of a temporary or permanent irrigation system in strategic locations would be implemented.

In addition to the marsh habitat, approximately 18.40 acres of the 83.47-acre District-owned Bank Parcel, would function as a wetland buffer (Figure 2-12). This buffer, comprised of upland and transition habitat and existing landscape, varies in width around the perimeter of the site, and its approximate average width exceeds 100 feet. This provides a substantial buffer between wetland habitat and surrounding land uses.

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Figure 2-13. Typical Wetland Section



Source: Appendix C of this EIR

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Construction Access and Staging Areas

Construction staging areas would require preparation, including minor grading, clearing and grubbing, fencing, and application of gravel or similar product to stabilize the areas. Construction staging areas would be established for staging of project materials and equipment storage. Staging areas would be used for stockpiling small quantities of excavated materials. Contractors would be required to establish best management practices (BMP) to control stormwater runoff and the potential leaks or spills associated with equipment and vehicles within and adjacent to the construction access and staging areas.

The proposed project includes the following two potential staging locations with associated truck haul routes to provide access to and from the project site (Figure 2-11). Temporary creek crossing is anticipated to involve a free span across the top of the bank. The staging locations include:

- **Staging Area #1 – Palm Avenue Staging Area (Parcel B).** No creek crossing or vertical clearance is required to access this staging area. This staging area would be accessed by Palm Avenue and utilize Route 1.
- **Staging Area #2 – Nestor Creek Staging Area (Parcel C).** A temporary crossing of Nestor Creek would be required for Staging Area #2. This would require a temporary bridge over Nestor Creek and vertical clearance to avoid existing overhead electric lines. This staging area would utilize Route 2.

Both potential staging areas would require access to haul routes for trucks to haul excess soil generated from the mitigation bank construction. Figure 2-11 depicts the proposed truck routes and includes:

- **Route 1** – Palm Avenue via I-5; and
- **Route 2** – Boundary Avenue via Saturn Boulevard and I-5.

Construction Schedule and Workforce

Construction of the proposed project is anticipated to take approximately 17 months. Construction would start following certification of this EIR by the District BPC and issuance of a FONSI by USFWS, final design engineering, and receipt of all applicable permits. It is anticipated these would be complete by early 2021, and construction would commence in 2021. Monitoring and maintenance activities would begin following completion of construction. The estimated duration of each construction activity is summarized in Table 2-2.

Construction would occur during daytime hours, Monday through Saturday from 7 a.m. to 4 p.m. Work restrictions may occur because of exceptionally high tides or delays due to rain or following rain events until the ground is dry enough for earth moving equipment to travel safely. A construction crew of approximately 14 people would be on site for the majority of construction, with up to 24 personnel on site for approximately 6 months during mass grading and 4 months during fine grading. The peak number of personnel on site during landscaping activities would be up to 36 people. Construction is anticipated to commence in early 2021, with clearing and grubbing, which would occur in April and May and utilize 40 hauling trucks per day for 2 months. Mass grading would occur June through November and utilize 80 hauling trucks per day for 6 months. Fine grading would occur in December and January and utilize 10 to 15 hauling trucks per day for 2 to 3 weeks.

Table 2-2. Proposed Construction Schedule

Activity	Estimated Duration (Months)
Clearing and grubbing	2
Mass grading	6
Fine grading	4
Landscaping	4
Breech excavation/opening	1

Construction Equipment

A variety of equipment and vehicles would be used during construction. Table 2-3 lists the construction equipment and vehicles and their estimated schedule during construction. Hauling trucks would be double trailers.

Table 2-3. Construction Equipment and Duration of Use

Type of Equipment	Quantity	Estimated Schedule (Months)
Excavator	2	7
Graders	2	4
Scrapers	1	4
Bull dozers	3	11
Loaders	4	10
Backhoes	2	3
Water trucks	2	15
Hauling trucks	20 to 80	10

2.4.2 Operation, Monitoring, and Maintenance

Bank Establishment

The District, as the project sponsor, provided the *South San Diego Bay Wetland Mitigation Bank Final Prospectus* (Appendix C) to an interagency review team (IRT) coordinated by ACOE and consisting of the U.S. Environmental Protection Agency (EPA), USFWS, National Marine Fisheries Service (NMFS), CCC, and San Diego and Santa Ana Regional Water Quality Control Boards (RWQCB). The prospectus was completed in accordance with the ACOE Prospectus for Mitigation Banks Checklist. The ACOE issued a public notice that the complete prospectus was available for public review, and the public comment period was open from July 5 to August 22, 2018.



Establishment of the Wetland Mitigation Bank at Pond 20 would be completed using the process outlined by the *Draft Compensatory Mitigation Rule Timeline for Bank or ILF Instrument Approval* (U.S. EPA and ACOE 2008). The District is required to prepare a draft bank enabling instrument (BEI) to be submitted for review to the IRT. The District would then prepare a final BEI, which would be considered for approval by ACOE. A BEI is an agreement between the mitigation bank project sponsor and the regulatory agencies that establishes liability, management and monitoring requirements, performance standards for the mitigation bank, and the terms of approval of the establishment and use of mitigation bank credits. Credit transfers may begin once the BEI has been fully executed by all parties.

Operation and maintenance of the Bank Site would be financed by the District's operational funds, including the EDF established by BPC Policy No. 774.

Success Criteria and Monitoring

In November 2017, the ACOE evaluated the Evaluation for Planned Wetlands as the project functional assessment for wetland restoration projects. Evaluation for Planned Wetlands is a rapid assessment procedure to document the pre- and post-restoration differences for wetland site conditions and is used to set the restoration goals success criteria for the proposed project. Performance standards cover each type of credit established by the project, including establishment of subtidal eelgrass habitat, tidal and intertidal marsh wetland habitat, and upland buffer/transitional habitat. A 5-year monitoring schedule would be established, but, if all performance standards are met prior to the 5th year of monitoring, all bank credits would be released. Details regarding the success criteria and performance standards can be found in Appendix C. The monitoring program would be prepared and approved under a separate process with the IRT; however, for purposes of this EIR a conservative estimate of monthly monitoring by one vehicle is assumed.

Long-Term Management and Maintenance

Once all performance standards have been met, the Bank Site is anticipated to be self-sustaining. However, because of the urban surroundings, long-term management may be needed, such as:

- Invasive species monitoring and removal;
- Trash removal;
- Maintenance of site control measures (e.g., fencing); or
- Restoration of any damage from human or maintenance activities or natural phenomenon.

Additionally, contingency measures and adaptive management measures are proposed in the long-term management plan prepared for the draft BEI, which is subject to review and comment by the IRT. Final measures would be available with the final BEI. Long-term management and maintenance is assumed to be infrequent annual visits by one vehicle.

Post-Success Criteria Operation

Operation of the mitigation bank includes providing compensatory mitigation credits for impacts on marine, wetland, and transitional habitat within the service area that are authorized under Section 404 of the CWA, the CCA, and the Porter-Cologne Water Quality Control Act, as well as impacts on eelgrass habitat under the California Eelgrass Mitigation Policy. The bank would provide compensatory mitigation to intertidal wetlands, salt marsh, and subtidal eelgrass habitat, and the mitigation of freshwater wetland impacts.

2.4.3 Port Master Plan Amendment

The PMP provides the official planning policies, consistent with a general statewide purpose, for the physical development of the tidelands and submerged lands conveyed and granted in trust to the District. A PMPA is proposed to incorporate the Bank Parcel and Parcels A, B, and C into the PMP. The proposed PMPA includes land use designations for these parcels and includes three new vista areas. The PMPA would incorporate the Bank Parcel and Parcels A, B, and C into the PMP in Planning District 9: South Bay Salt Lands.

Bank Parcel

The District-owned Bank Parcel is not currently in the PMP, and therefore, does not currently have a land use designation. As a result, a PMPA would be processed to incorporate the Bank Parcel into the PMP. If adopted by the BPC and certified by the CCC, the PMPA would allow the District to issue a non-appealable CDP for the construction and establishment of wetlands on the Bank Site. To provide long-term assurance, the District proposes to designate the approximately 83.47 acres of the Bank Parcel as wetlands in the PMP through the PMPA process. The wetlands designation is reserved for habitat, wildlife conservation, and environmental protection.

District-Owned Parcels A, B, and C

District-owned Parcels A, B, and C are located along the eastern and western borders of the Bank Parcel. These parcels would be incorporated into the PMP and assigned a commercial recreation land use designation as part of the PMPA process. The PMPA would also include adding one vista area to each of these three parcels, as well as one promenade on Parcel A and one promenade on Parcel B (Appendix B). The PMP allows for the following uses under the commercial recreation land use designation: hotels, restaurants, convention center, recreational vehicle parks, specialty shopping, pleasure craft marinas, water-dependent educational and recreational program facilities and activities, dock and dine facilities, and sportfishing. However, because no specific commercial development project is proposed at this time, there is no specific project-level analysis with regard to potential future uses on Parcels A, B, and C. Future development of these parcels would require discretionary approvals from the District, such as but not limited to a CDP and project approval. Additional environmental review pursuant to CEQA Guidelines Section 15168 would also be required.

Incorporation of Parcels A, B, and C is evaluated at a program level. No development is proposed on these parcels at this time; however, the following reasonable development assumptions are considered in the program-level analysis:

- **Parcel A** – maximum commercial development of 25,000 square feet and two stories
- **Parcel B** – maximum commercial development of 5,000 square feet and two stories
- **Parcel C** – maximum commercial development of 75,000 square feet and two stories



2.5 Required Project Approvals

2.5.1 San Diego Unified Port District

Certification of the Environmental Impact Report

Pursuant to CEQA, after the required public review for the Draft EIR, the District will respond to written comments, revise the document as needed, and produce a Final EIR. The Final EIR will be presented to the BPC for certification.

In addition, the berm breach portion of the project is within the San Diego Bay NWR, which is under the jurisdiction of the USFWS; therefore, an environmental analysis would be prepared in accordance with NEPA and in coordination with the USFWS.

Port Master Plan Amendment

Pursuant to the CCA, implementation of the project would require an amendment to the PMP to incorporate the Bank Site and Parcels A, B, and C into the PMP and designate them as wetlands and commercial recreation land uses, respectively.

2.5.2 Discretionary Actions and Approvals by Other Agencies

Responsible agencies are those agencies with discretionary approval over one or more actions involved with development of the project. Federal and state permits anticipated for the construction work are included in Table 2-4.

Table 2-4. Consultation and Permitting Requirements

Agency	Permit or Approval	Approach/Consultation
San Diego Unified Port District	CEQA	As the CEQA lead agency, the District has principal responsibility for carrying out and approving the proposed project. This includes certification of Final EIR, Mitigation, Monitoring, and Reporting Program, Findings of Fact, and Statement of Overriding Considerations. The District would certify the entire proposed project.
San Diego Unified Port District	CDP	The proposed project is located within the Coastal Zone and constitutes development pursuant to CCA Section 30106. After certification of the PMPA by the CCC, a non-appealable CDP pursuant to Section 30715 of the CCA would be required from the District for the wetland mitigation bank. Future development on Parcels A, B, and C would also require a CDP; however, the type of development would determine whether a non-appealable or appealable CDP would be required.
USFWS	Special Use Permit	This is required for project components within the NWR, which is the berm breach site only.
USFWS	NEPA	As the NEPA lead agency, USFWS would issue a FONSI for the Environmental Assessment. The Environmental Assessment would only include the berm breach site.

Table 2-4. Consultation and Permitting Requirements

Agency	Permit or Approval	Approach/Consultation
SHPO	Section 106 of NHPA	As the NEPA lead agency, USFWS would consult with SHPO, and other consulting parties to resolve adverse effects on historic properties on federal land. This is limited to the berm breach site.
ACOE	CWA Section 404, Nationwide Permit 27 - Aquatic Habitat Restoration, Enhancement, and Establishment Activities	Consultation with ACOE, RWQCB, and CCC would be required to obtain a CWA Section 404 permit for work within WOUS, including wetlands. The Nationwide Permit 27 is required for activities in WOUS associated with restoration, enhancement, and establishment of aquatic habitat and would be applicable to the berm breach site. WOUS are also located on Parcel A.
U.S. Coast Guard	General Bridge Act of 1946 Bridge Permit	Considering the tidal influence and the location of the existing bridge, it is unlikely that the U.S. Coast Guard would require a bridge permit; however, it is recommended that a letter be sent notifying the agency of the project construction details to obtain an Advanced Approval Determination that states the waterway conforms to the criteria under 33 CFR 115.70 and a bridge permit is not necessary. This is applicable to the wetland mitigation bank.
CCC	Federal Coastal Consistency Certification	For the berm breach project component on federal land, the CCC would require a coastal consistency analysis and certification request for review and approval by the Federal Consistency Unit of the CCC to obtain a Federal Coastal Consistency Certification. The certification request would be prepared and submitted concurrent with the regulatory permitting process with the ACOE and RWQCB.
CCC	PMPA	Certification of and final action on the PMPA. The PMPA includes the Bank Parcel and Parcels A, B, and C.
SWRCB	Construction General Permit and 401 Permit	NOI to obtain coverage under the General Construction Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, which requires the development of a SWPPP and Section 401 Permit associated with issuance of a CWA Section 404 Permit. This is applicable to the wetland mitigation bank and Parcels A, B, and C.
RWQCB	NPDES permitting	As directed by SWRCB, monitor development and implementation of SWPPP and other aspects of the NPDES permit and 401 certification program. SWPPPs are required for storm water discharges associated with construction activities that disturb 1 acre or more of land. This is applicable to the wetland mitigation bank and Parcels A and C.
CDFW	Lake and Streambed Alteration Agreement	Fish and Game Code Section 1602 requires any local governmental agency to notify CDFW before beginning any activity that would substantially modify a river, stream, or lake. This is applicable to the wetland mitigation bank and Parcels A and C.
SDAPCD	Fugitive Dust Control Plan and Authority to Construct	SDAPCD may require a fugitive dust control plan and issue an Authority to Construct. This is applicable to the wetland mitigation bank and Parcel A, B, and C.



Table 2-4. Consultation and Permitting Requirements

Agency	Permit or Approval	Approach/Consultation
Caltrans	Encroachment permit and permit for haul trucks	An encroachment permit may be required for work within the Caltrans ROW (Palm Avenue). A permit to operate the haul trucks on Caltrans facilities may be required. This would include a Traffic Control Plan. This is applicable to the wetland mitigation bank and Parcels A, B, and C.

Notes:

ACOE=United States Army Corps of Engineers; Caltrans=California Department of Transportation; CCA=California Coastal Act; CCC=California Coastal Commission; CDFW=California Department of Fish and Wildlife; CDP=Coastal Development Permit; CEQA=California Environmental Quality Act; CFR=Code of Federal Regulations; CWA=Clean Water Act; FONSI=Finding of No Significant Impact; NEPA=National Environmental Policy Act; NHPA=National Historic Preservation Act; NOI=Notice of Intent; NPDES=National Pollutant Discharge Elimination System; NWR=National Wildlife Refuge; PMPA=Port Master Plan Amendment; ROW=right-of-way; RWQCB=Regional Water Quality Control Board; SDCAPCD=San Diego County Air Pollution Control District; SHPO=State Historic Preservation Officer; SWRCB=State Water Resource Control Board; SWPPP=Storm Water Pollution Prevention Plan; USFWS=U.S. Fish and Wildlife Service; WOUS=waters of the U.S.

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3 Introduction to Environmental Analysis

Sections 3.1 through 3.15 of Chapter 3 of this EIR contain discussions of the potential project-related 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.

- 3.1, Aesthetics
- 3.2, Air Quality
- 3.3, Biological Resources
- 3.4, Cultural Resources
- 3.5, Energy
- 3.6, Geology and Soils
- 3.7, Greenhouse Gas Emissions
- 3.8, Hazards and Hazardous Materials
- 3.9, Hydrology and Water Quality
- 3.10, Land Use and Planning
- 3.11, Noise
- 3.12, Public Services
- 3.13, Transportation
- 3.14, Tribal Cultural Resources
- 3.15, Utilities and Service Systems

It was determined during preparation of the IS and Environmental Checklist (Appendix A) that the project would have either a less than significant impact or no impact associated with the following topics: agriculture and forestry resources, mineral resources, population and housing, recreation, and wildfire. As such, these topics are not included in this chapter. Rather Section 5.4, Effects Not Found Not to be Significant (in Chapter 5 of this EIR), contains a summary that demonstrates why potential impacts on these environmental resources would not be significant.

Format of the Environmental Analysis

Each of the 15 environmental topic sections of this chapter includes the following subsections.

Overview

This subsection provides a brief overview of each resource section.

Existing Conditions

According to Section 15125 of the CEQA Guidelines, an EIR must include a description of the physical environmental conditions in the vicinity of the project. The EIR should describe the physical environmental conditions as they exist at the time the NOP is published to set a baseline physical condition by which a lead agency determines whether an impact is significant. For the purposes of this EIR, the environmental setting described in each of the following sections will be that which existed on June 20, 2019, the date the NOP was published.

Applicable Laws, Regulations, and Policies

This subsection provides a summary of regulations, plans, policies, and laws at the federal, state, and local levels that are relevant to the proposed project as they relate to the particular environmental resource area. Compliance with the applicable laws and regulations is mandatory, unless otherwise noted within the analysis. Therefore, as it relates to the project impact analysis, compliance is assumed because it is required by law, and mitigation would generally not be required when compliance with an existing law or regulation would either avoid or reduce a significant impact to a level less than significant.

Environmental Impacts

This subsection describes the methodology used for the analysis of the potential environmental impacts of the proposed project at both the project level and the program level and identifies the criteria for determining the significance of potential impacts. The discussion of impacts is based on the applicable thresholds of significance and the analysis of project-level and program-level impacts is separate. The analysis may further be separated by construction and operation wherever relevant. Each threshold of significance discussion states a conclusion as to whether the environmental impacts would be considered significant and unavoidable, less than significant with mitigation incorporated, less than significant, or no impact (see definitions below). 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

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

Thresholds of Significance

Thresholds of significance are the criteria used to assess whether potential environmental impacts are significant. The significance criteria used in this analysis are based on the recommendations provided in Appendix G of the 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 are quantitative for some environmental topics, such as air quality and noise,



and qualitative for others, such as aesthetics. The thresholds of significance are intended to assist the reader in understanding how an impact is determined to be significant.

Impact Analysis

According to Section 15126.2 of CEQA Guidelines, an EIR must identify and focus on the significant effects of the proposed project on the environment by assessing direct and indirect effects, as well as short-term, long-term, on-site, and off-site effects. While the two project components are analyzed separately in most resource sections, each threshold topic includes a combined conclusion for the whole project. 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 construction or operation of the project would have no adverse effect on a resource.

Less than Significant. This term is used to refer to impacts resulting from implementation of the project that are not likely to exceed the defined threshold of significance. This term is also used to refer to potentially significant impacts that are reduced to a level that does not exceed the defined thresholds of significance after implementation of mitigation measures.

Significant. This term is used to refer to impacts resulting from implementation of the proposed project that exceed the defined threshold of significance before identification of mitigation measures. Section 15382 of the CEQA Guidelines states that a “significant effect” is “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 significance effect on the environment [but] may be considered in determining whether they 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.

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 or significance through implementation of feasible mitigation measures.

Mitigation Measures

CEQA Guidelines Section 15126.4 requires an EIR to “describe feasible measures which could minimize significant adverse impacts.” Mitigation includes avoiding an impact, minimizing an impact, rectifying the impact by restoring or rehabilitation, reducing or eliminating the impact over time, or compensating for the impact by replacing or providing substitute resources or environments. CEQA Guidelines define feasible as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.” This subsection lists the mitigation measures identified to reduce the severity of potential impacts resulting from implementation of this project. These mitigation measures will be included in the Mitigation, Monitoring, and Reporting Program and adopted as conditions of approval of the project.

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3.1 Aesthetics

3.1.1 Overview

This section describes the existing aesthetic conditions and applicable laws, regulations, and policies associated with visual resources, as well as an analysis of the potential effects resulting from implementation of the proposed project.

3.1.2 Existing Conditions

The project site is located at the southern end of San Diego Bay in the City of San Diego. The project site is bordered by urban residential, commercial, and industrial land uses, as well as the San Diego Bay NWR, San Diego Bay, San Diego Bayshore Bikeway, and Otay Valley Regional Park. The City of Imperial Beach borders the western side of the project site.

The project site consists of approximately 95 acres of District-owned and federally-managed land located in the City of San Diego. The project site consists of four parcels: the Bank Parcel (adjacent to the Berm Breach site) and Parcels A, B, and C. There are no existing sources of light or glare on these parcels.

- The Bank Parcel (83.47 acres) includes the southern portion of Pond 20, a former salt evaporation pond. The Bank Parcel contains low, sparse vegetation and a thick crust of salt precipitate.
- Parcel A (2.67 acres) is located to the west of the Bank Parcel and is undeveloped. The parcel contains low vegetation and some wetland habitat.
- Parcel B (0.99 acre) is located southeast of the Bank Parcel. The parcel is mostly undeveloped and contains low vegetation with the exception of the southern portion, which was recently vacated by VMT Auto sales. The southern portion of Parcel B is a paved and fenced vacant lot.
- Parcel C (7.98 acres) is located east of the Bank Parcel and is undeveloped and contains mainly low vegetation.
- The Berm Breach (0.33 acre) is located at the northwest corner of the Bank Parcel where the Otay River Tributary and Otay River converge. It contains WOUS, WOS, CCC jurisdictional wetlands, and potential CDFW regulated streambed.

Designated Scenic Vistas

There are no designated scenic vistas on the project site or that incorporate the project site.

The PMP includes land use objectives and criteria, which includes vista areas. Vista areas are defined as points of natural visual beauty, photo vantage points, and other panoramas (San Diego Unified Port District 2017) The PMP is intended to guide the arrangement of development on sites with vista areas to preserve and enhance such vista points. Vista areas are identified for each precise plan. The vista areas nearest to the project site that are designated in the PMP include Silver Strand Beach State Park, 2 miles north west from the project site, looking east across San Diego Bay; and at Chula Vista Bayfront Park, 2 miles north east from the project site, looking west across San Diego Bay. There are

no PMP designated vista areas on the project site, and the project site is not within the viewshed of the Silver Strand Beach State Park or the Chula Vista Bayfront Park.

Scenic Highways

SR 75 is a California state-designated scenic highway from the northern Imperial Beach city limits to Avenida del Sol in Coronado, as well as the Coronado Bridge (Caltrans 2011). While SR 75 borders the southern portion of the project site, the state designated scenic highway does not begin until 1.25 mile from the project site, and the project site is not visible from the highway. There are no other designated scenic highways within the project vicinity.

Other Scenic Resources

In addition to PMP-designated vista areas, city-designated scenic resources, and scenic highways, the principal viewer group for the proposed project include motorists and pedestrians within public roadways, residents, and recreationists using the San Diego Bayshore Bikeway or the Otay Valley Regional Park.

A viewshed is defined as the surface areas likely visible from an observer's viewpoint both from the project site and toward the project site (County of San Diego 2007). Scenic resources are defined as visible natural scenery, such as landscapes (U.S. Department of Agriculture n.d.). There are scenic resources that are enjoyable for local public viewing identified in the City of Imperial Beach General Plan. The City of Imperial Beach designates the Salt Evaporation Ponds and South San Diego Bay (City of Imperial Beach 2015) as scenic resources and views across the Salt Evaporation Ponds to South San Diego Bay, Coronado Bridge, and Downtown San Diego. Imperial Beach does not have any designated scenic resources on the project site. Portions of the project are within the viewshed of the Salt Evaporation Ponds and South San Diego Bay, but views of the South San Diego Bay, Coronado Bridge, and Downtown San Diego are north of the project site. The City of San Diego does not have any designated scenic resources on the project site, and the project site is not within the viewshed of any City of San Diego designated scenic resources (City of San Diego 2008).

Recreational Land Uses

Recreational land uses within the surrounding area provide recreationists with public views of the project site. The San Diego Bayshore Bikeway is a 24-mile bicycle circuit along San Diego Bay. The portion of the bikeway that is nearest the project site is car-free and access from public roadways is located immediately adjacent to the project site. Direct and unobstructed views of the project site are available from the bikeway. See Figure 3.1-2 through Figure 3.1-4 for views of the project site from the Bayshore Bikeway Village and Figure 3.1-1 provides the location for the viewpoints.

The Otay Valley Regional Park is a 200-acre park located immediately east of the project site. The park is one of the major open space areas within southern San Diego County, which links the south bay with lower Otay Lake Reservoir. The segment of the park immediately adjacent to the project site contains two multi-use or hike/bicycle trails that connect to the Bayshore Bikeway through the San Diego Bay NWR. The Otay Valley Regional Park Concept Plan (Concept Plan) contains policies to restore and enhance disturbed areas in open space areas and encourages the use of trails. The nearest trail to the project site is 0.25 mile (County of San Diego 2016). The Concept Plan also identifies viewpoint and overlook areas, some of which are outside the boundaries of the park. The Concept Plan identifies two viewpoints of the project site: 1) Palm Avenue at the southern end of the Bank Parcel (Figure 3.1-5 and Figure 3.1-6), and 2) the Bikeway Village mixed-use development at



the northern end of 13th Street (Figure 3.1-2 through Figure 3.1-4). Figure 3.1-7 depicts the view from the southwest corner of the Otay Valley Regional Park from the Otay River Pump Station.

Public Roadways and Residents

Palm Avenue runs adjacent to the south side of the project site. The entire undeveloped project site is visible from Palm Avenue. The entire project site is also visible from 13th street, which runs along a portion of the west side of the site.

The project site is visible from residences on 13th Street, north of Palm Avenue, as well as portions of the Capri Lodge mobile home park on Palm Avenue, the Bayside Palms Mobilehome Village on Palm Avenue, the Apache Trailer Lodge on Palm Avenue, and the Imperial Sands Mobile Park on Palm Avenue and 17th Street.

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Figure 3.1-1. View Point Photo Locations



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Figure 3.1-2. Location 1a: Bayshore Bikeway Village (East)



Figure 3.1-3. Location 1b: Bayshore Bikeway Village (Southeast)



Figure 3.1-4. Location 1c: Bayshore Bikeway Village (South)



Figure 3.1-5. Location 2a: Palm Avenue (North)



Figure 3.1-6. Location 2b: Palm Avenue (Northeast)



Figure 3.1-7. Location 3. Otay Valley Regional Park/Otay River Pump Station (South/Southwest)



3.1.3 Applicable Laws, Regulations, and Policies

State

California Scenic Highway Program

Caltrans oversees the California Scenic Highway Program, which was created in 1963 by California legislature to designate certain portions of the state highway system as state scenic highways for the protection and enhancement of California's natural scenic beauty. The program includes a list of highways that are eligible or have been designated as scenic highways. State Scenic Highways are governed under California Streets and Highways Code, Article 2.5, Sections 260 through 263 and 280 through 284.

California Coastal Act

PRC, Division 20 CCA, Section 30251 states that "scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance." Permitted development projects must be designed to protect views, minimize alteration of natural land forms, be visually compatible with surrounding areas, and, where feasible, restore or enhance visually degraded areas.

Local

Port Master Plan

Section II of the PMP sets forth planning goals and related policies for development and operation of lands within the District's jurisdiction. The goals and policies related to 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.

Goal XI. The Port District will protect, preserve, and enhance natural resources, including natural plant and animal life in the bay as a desirable amenity, an ecological necessity, and a valuable and usable resource.

- Promote and advance public knowledge of natural resources through environmental educational materials.
- Identify existing and potential assets.
- Administer the natural resources so that impacts upon natural resource values remain compatible with the preservation requirements of the public trust.



Section III of the PMP describes the master plan interpretation and includes land use objectives and criteria for each land use designation. For commercial land uses on District lands, development should have:

- 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
- 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

San Diego Unified Port District Board of Port Commissioner Policy 357

Tenant requests for new construction, reconstruction, modification, demolition, or improvements must be submitted with plans and specifications to the District for approval. Plans are reviewed by District staff for compliance with policies, guidelines, and provisions of the lease.

BPC Policy 357 outlines the approval requirements for tenant project plans. The policy requires preliminary plans for new tenant development be submitted to the Board for approval if:

- The project is estimated to cost more than \$500,000
- The project will make a significant change in the silhouette or appearance of the area
- Any project(s) District staff determines to be reviewed by the Board, regardless of cost, due to its high public profile, its regional impact, baywide security issues or other important matters that require the Board's consideration and/or determination.

City of San Diego Municipal Code

The District does not currently process construction and building permits. The project is required to obtain building permits from the City of San Diego; therefore, the following ordinances apply to the project.

The City of San Diego Municipal Code contains general regulations for glare and outdoor lighting in Chapter 14 General Regulations, Article 5 Building Regulations. The purpose of Chapter 14, General Regulations, Article 5 Building Regulations, is to establish minimum standards to safeguard health and safety, property, and public welfare, and to satisfy the 2019 California Building Code (CBC). The codes in Appendix J, Grading, are standards for grading, excavation, and earthwork construction, including any fills and embankments, and are relevant to the project, as applicable.

Chapter 12, Land Development Reviews, Article 9 Construction Permits, Division 2 Building Permit Procedures, establishes 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.

City of Imperial Beach Municipal Code

The City of Imperial Beach contains general regulations for outdoor lighting, which are presented below.

§19.48.170. Lighting. All outdoor lighting for parking areas shall be so shaded and adjusted that light therefrom is directed to fall only on the same premises where such light source is located.

§19.56.020. Industrial or commercial operations. It is unlawful for any commercial or industrial operation to display lights in such a manner so that the beams or the rays from the light source shall be directed to and unshielded from adjacent residential properties. All light sources used for advertising, security or safety purposes shall be arranged or shielded in such a manner that they will not constitute a public nuisance for residential property owners.

3.1.4 Environmental Impacts

This section presents the methodology applied for the evaluation, the significance criteria used for considering project impacts related to aesthetic resources, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level component includes a PMPA to incorporate Parcels A, B, and C into the PMP, which requires a land use designation be assigned. The parcels are proposed to be assigned a commercial recreation land use designation. At this time, no construction or operational activities are proposed on Parcels A, B, and C. The impact analysis below evaluates the reasonable development scenario for Parcels A, B, and C, which is future commercial land use. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to a CDP and project approval, and any additional CEQA compliance.

Methodology

Study Area

The study area for aesthetic resources includes the project site and adjacent land uses with views of the project site. As described in Section 3.1.2, the project site is visible from public roadways, surrounding residences, and recreationists. Because views from residences are private (i.e., not public vantage points) and only afforded to those persons residing on a particular parcel, the views of residents are not considered sensitive for the purposes of this analysis.

Methods

Aesthetic experiences can be highly subjective; therefore, project-related impacts are evaluated qualitatively based on the extent of the modifications to existing physical conditions. Aesthetic resources are often described in terms of their visual quality. Visual quality is an attribute or characteristic based on professional, public, or personal values, as well as the intrinsic physical properties of the landscape. Visual quality is influenced by the visual character of elements within the affected environment and what viewers like or dislike about a particular landscape (Federal Highway Administration [FHWA] 2015). Visual and aesthetic effects result from changes in the visual landscape and the viewer's response or sensitivity to those changes.



Visual sensitivity was considered during the evaluation. Visual sensitivity is dependent upon visibility of scenic resources, the numbers of viewers, the proximity of viewers to the resource, frequency and duration of views, and the type of activity in which people are engaged when viewing the resource.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to aesthetics are considered significant if any of the following occur:

- a) Have a substantial adverse effect on a scenic vista
- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway
- c) Conflict with applicable zoning and other regulations governing scenic quality
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (d) would result in no impact for the project-level wetland mitigation bank creation, and therefore, an analysis of the wetland mitigation parcel under Threshold (d) is not included in the analysis below (see Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR).

Impact Analysis

Threshold (a) Have a substantial adverse effect on a scenic vista.

Project Level – Wetland Mitigation Bank

CONSTRUCTION

There are no designated scenic vistas on the project site or that incorporate the project site and, therefore, no designated scenic vistas would be affected by the project. The project site is a part of expansive open space viewshed, and construction of the project would be temporarily visible from nearby public view locations, such as the Otay Valley Regional Park, the Bayshore Bikeway, the Salt Evaporation Ponds, and the South San Diego Bay. Views from Imperial Beach of the South San Diego Bay, Coronado Bridge, and Downtown San Diego are north of the project site. The berms around the Bank Site are approximately the same elevation as Palm Avenue; however, the area within the berms is about 11 to 14 feet below the street elevation.

Construction of the wetland mitigation bank is anticipated to occur for approximately 17 months. Construction activities are restricted to earth moving activities only and include construction of an earthen berm on the southern edge of the ORERP wetlands restoration site; excavation of the site; grading and breaching of the berm to allow tidal flow; and planting of wetland vegetation. These activities would result in large construction equipment on site and soil stock piles. Parcels B and C may be used as staging areas during construction.

Construction activities would be short term and restricted to the project site. Grading and dredging activities would occur within the berms of Pond 20 and therefore would be approximately 11-14 feet below street elevation. Soil stock piles and construction equipment, while present on site, would not block or impede views of a scenic vista as there are no scenic vistas on the project site or that incorporate the project site. The scenic resources associated with the San Diego Bay NWR, the Otay

Valley Regional Park, the Bayshore Bikeway, the Salt Evaporation Ponds, and the South San Diego Bay would not be effected by the introduction of construction activities due to the vastness of the scenery and the project site being only a small portion of the viewshed of these resources. Views of the San Diego Bay and the San Diego Bay NWR from Palm Avenue and 13th Street would not be blocked by construction equipment. The change in view would be noticeable for drivers along Palm Avenue along the border of the south side of the project site or 13th Street to the west of the project site; however, the expansive view of the San Diego Bay would remain for scenic viewing. Impacts on scenic vistas associated with the construction of the wetland mitigation bank would be less than significant.

OPERATION

After the completion of the wetland mitigation bank construction, the visual character of the project site would be improved from a barren site through the creation of tidal wetland habitat and upland buffer habitat, including high marsh, mid marsh, low marsh, intertidal mudflat, transitional habitat, and subtidal eelgrass habitat. The wetland mitigation bank would complement surrounding land uses by expanding valuable wetland habitat south of San Diego Bay NWR, providing essential wetland functions. The vegetation would act as attractors for local wildlife, and the overall wetland establishment and enhancement would increase other values, including improved water quality. Additional value enhancements include creating habitat to support spawning and breeding for native fish and birds; this would contribute to the local bird-watching. Operation of the wetland mitigation bank would result in beneficial impacts to scenic views. Operation of the wetland mitigation bank would not result in a significant impact on scenic vistas associated with the operation of the wetland mitigation bank.

Program Level – Parcels A, B, and C Port Master Plan Amendment

Parcel A is located adjacent to the Bikeway Village, and Parcel B is located along Palm Avenue, which are viewpoints identified in the Otay Valley Regional Park Concept Plan. Parcel C is located near Otay Valley Regional Park and is visible from the trails through the park.

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. Based on the reasonable building assumption of two stories, commercial development on Parcels A, B, and C would not result in blocking of scenic resources and public views from SR-75, Otay Valley Regional Park, Palm Avenue, and the Bikeway Village would still be accessible (Figure 3.1-2 through Figure 3.1-7). The limited public views from SR-75, Otay Valley Regional Park, Palm Avenue, and the Bikeway Village would be retained because Parcels A, B, and C are already blocked by existing development. Additionally, views across the project site are on mobile homes, commercial uses, and I-5. The PMPA would also include adding one vista area to each of the parcels. Views from the three new vista areas proposed in the PMPA would be looking north, and no conflict would occur (Appendix B). Impacts on scenic vistas associated with the incorporation of Parcels A, B, and C into the PMP as commercial recreation land use designation would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.



PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

Threshold (b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway.

Project Level – Wetland Mitigation Bank

The project site does not contain scenic resources, such as trees, rock outcroppings, or historic buildings. The designated state scenic highway portion of SR 75 is located approximately 1.25 mile from the project site and the project site is not visible from the designated scenic highway portion of SR 75. The construction of the wetland mitigation bank would be temporary in nature. Once construction is complete, the visual character of the site would be improved through the establishment of high-quality habitat. Impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

As discussed above, the project site does not contain scenic resources, such as trees, rock outcroppings, or historic buildings and is not visible from the designated scenic highway portion of SR 75. Similar to the construction of the wetland mitigation bank, any development of Parcels A, B, and C would have temporary construction impacts that would not result in substantial damage to a scenic resource. Because no scenic resources exist on the project site, operation of Parcels A, B, and C would not impact any such resources. Impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

Threshold (c) Conflict with applicable zoning and other regulations governing scenic quality.

Project Level – Wetland Mitigation Bank

As discussed under Threshold (a), the creation of the wetland mitigation bank would result in aesthetic benefits to the area. The wetland mitigation bank would enhance the tidelands as an attractive physical and biological entity and would be compatible with adjacent natural resources. By incorporating the Bank Parcel into the PMP with a wetlands land use designation, the wetland mitigation bank would align with the goals and policies identified in the PMP and the CCA (Sections 30251 and 30708).

Therefore, creation of the wetland mitigation bank would not conflict with applicable zoning and other regulations governing scenic quality, and no impact would occur.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. Parcels A, B, and C are located in the coastal zone and are subject to consistency with the CCA. Additionally, in order to be incorporated into the PMP, the parcels must be consistent with the goals and policies of the PMP.

To be consistent with the CCA, development projects must be designed to protect views, minimize alteration of natural land forms, be visually compatible with surrounding areas, and, where feasible, restore or enhance visually degraded areas. To be consistent with the PMP, development projects 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, as well as provide the greatest economic, social, and aesthetic benefits to present and future generations. Future development of Parcels A, B, and C would require discretionary action by the District, in the form of either a CDP or a CCA exclusion, as well as the District's tenant improvement project plans as outlined in BPC Policy 357. CCA compliance and the associated approval process requires consideration of consistency with the CCA and the PMP, both of which identify aesthetic considerations/policies that must be adhered to. The CCA, for instance, requires permitted development projects be designed to protect views, minimize alteration of natural land forms, and be visually compatible with surrounding areas. BPC Policy 357 for all development projects:

- Staff shall review all plan submittal to ensure compliance with BPC Policies, proposals approved by the Board, the PMP, and applicable environmental mitigation requirements
- Plan submittals shall be in accordance with the Port's "Guidelines for Tenant Project Plan Submittals"
- Plans that have material variation from those previously approved by the Board shall be resubmitted for Board approval
- Staff shall inspect projects during construction to ensure substantial compliance with approved plans

Finally, the PMP requires commercial development to have a unifying design theme enhancing the overall aesthetic qualities of the site and insuring compatible land and water uses benefiting the unique aspect of commercial activities at bayside locations and 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.

The project applicant would be required to prepare a site plan for District review that evaluates the proposed development's consistency with the PMP and CCA prior to construction. Therefore, impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.



PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

For the project-level component, no impact would occur. For the program-level component, impacts would be less than significant. Impacts from the proposed project would be less than significant.

Threshold (d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (d) would result in no impact for the project-level wetland mitigation bank creation; therefore, it is not analyzed below.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels. Commercial development could potentially introduce a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Significant impacts could occur if commercial development introduces reflective building materials or new light sources that result in daytime glare or nighttime lighting that interfere with views of the wetland mitigation bank or San Diego Bay NWR. Additionally, construction of commercial development has the potential to require a temporary new source of nighttime lighting during construction due to overnight security lights. Implementation of mitigation measure (MM) AES-1 would require incorporation of non-reflective building materials in the design of commercial development and MM AES-2 would require any nighttime security lighting be shielded downward. Implementation of MM AES-1 and MM AES-2 would reduce the significant impacts to a level less than significant.

Mitigation Measure(s)

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM AES-1 Reduced Glare Building Materials. The commercial development project proponent shall incorporate non-reflective or reduced glare building materials in the design of any structures proposed for development on Parcels A, B, and C consistent with applicable municipal codes. Any glass incorporated into the design shall either be low reflectivity or accompanied by a non-glare coating. Prior to building permits being issued for construction, the District shall confirm reduced glare building materials are included on the appropriate building plans.

MM AES-2 Shield or Downcast Nighttime Lighting. The commercial development project proponent shall ensure that all nighttime lighting, either for nighttime construction or security lighting, shall be shielded downward to avoid any light spillover off site and lighting shall be limited to an amount required for safety of construction personnel and security of construction equipment.

Significance after Mitigation

Implementation of MM AES-1 would reduce impacts from new sources of substantial daytime glare by requiring reduced glare building materials and MM AES-2 would reduce impacts from new substantial nighttime lighting by requiring all nighttime lighting be shielded downward. Impacts would be less than significant. In addition, as indicated in Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR, there would be no impact associated with the project-level component. Therefore, impacts for the overall project would be less than significant with mitigation incorporated.



3.2 Air Quality

3.2.1 Overview

This section describes the existing air quality conditions and applicable laws, regulations, and policies associated with air quality, as well as an analysis of the potential effects resulting from implementation of the proposed project. Information contained in this section is summarized from Air Quality and Greenhouse Gas Emissions Study (Appendix D).

3.2.2 Existing Conditions

Climate

The project site is located in the City of San Diego in San Diego County, which is part of the San Diego Air Basin (SDAB) and is under the jurisdiction of the San Diego County Air Pollution Control District (SDAPCD). The climate of the SDAB, as with all of Southern California, is largely dominated by the strength and position of the semi-permanent high-pressure system over the Pacific Ocean, known as the Pacific High. This high-pressure ridge over the West Coast often creates a pattern of late-night and early-morning low clouds, hazy afternoon sunshine, daytime onshore breezes, and little temperature variation year round. The annual average temperature ranges from the low to middle 60 degrees Fahrenheit (°F), and January is typically the coldest month in this area of the SDAB (Western Regional Climate Center 2016).

The climatic classification for San Diego is a Mediterranean climate, with warm, dry summers and mild, wet winters. Average annual precipitation ranges from approximately 10 inches on the coast to over 30 inches in the mountains to the east. The majority of annual rainfall in the SDAB occurs between November and April.

Air quality in the planning area is not only affected by various emission sources (e.g., mobile, industry, etc.) but also by atmospheric conditions such as wind speed, wind direction, temperature, rainfall, etc. Climate in the SDAB is determined by its terrain and geographical location. The boundaries of the SDAB are contiguous with the political boundaries of San Diego County. The County of San Diego encompasses approximately 4,260 square miles and is bounded on the north by Orange and Riverside Counties, on the east by Imperial County, on the west by the Pacific Ocean, and on the south by the Mexican State of Baja California. The County is divided by the Laguna Mountain Range, which runs approximately parallel to the coast about 45 miles inland and separates the coastal area from the desert portion of the county. The Laguna Mountains have peaks reaching over 6,000 feet, with the highest point in the county being Hot Springs Mountain rising to 6,533 feet.

Monitored Air Quality

The SDAPCD monitors air quality conditions at 12 locations throughout the SDAB. The closest monitoring station to the project site is the Chula Vista – 80 East J Street station. This station monitors nitrogen dioxide (NO₂), ozone (O₃), particles of 10 micrometers and smaller (PM₁₀) and particles of 2.5 micrometers and smaller (PM_{2.5}). The closest station that monitors carbon monoxide (CO) and sulfur dioxide (SO₂) is the El Cajon station. Table 3.2-1 shows pollutant levels, the state and federal standards, and the number of exceedances recorded at the Chula Vista and El Cajon Monitoring Stations from 2016 to 2018.

Table 3.2-1. Ambient Air Quality Monitoring Concentrations

Pollutant	Pollutant Concentration and Standard	Maximum Concentration		
		2016	2017	2018
CO	Maximum 1-hour Concentration (ppm)	—	1.6	1.5
	Days> 20 ppm (state 1-hr standard)	—	0	0
	Days> 35 ppm (federal 1-hr standard)	—	0	0
	Maximum 8-hour Concentration (ppm)	—	1.3	1.4
	Days> 9 ppm (state 8-hr standard)	—	0	0
	Days> 9 ppm (federal 8-hr standard)	—	0	0
O ₃	Maximum 1-hour Concentration (ppm)	0.088	0.073	0.085
	Days> 0.09 ppm (state 1-hr standard)	0	0	0
	Maximum 8-hour Concentration (ppm)	0.066	0.068	0.074
	Days> 0.070 ppm (state 8-hr standard)	0	0	1
	Days> 0.070 ppm (federal 8-hr standard)	0	0	1
NO ₂	Maximum 1-hour Concentration (ppb)	49	54.0	57.0
	Days> 180 ppb (state 1-hr standard)	0	0	0
	Days> 100 ppb (federal 1-hr standard)	0	0	0
	Annual Arithmetic Mean (ppb)	10	9	9
	Exceed 30 ppb? (state Annual Standard)	No	No	No
	Exceed 53 ppb? (federal Annual Standard)	No	No	No
SO ₂	Maximum 1-hour Concentration (ppb)	—	0.6	1.1
	Days> 250 ppb (state 1-hr standard)	—	0	0
	Days> 75 ppb (federal 1-hr standard)	—	0	0
Coarse Particulate Matter (PM ₁₀)	Maximum 24-hour Concentration (µg/m ³)	46.0	48.0	61.0
	Days> 50 µg/m ³ (state 24-hr standard)	0	0	1
	Days> 150 µg/m ³ (federal 24-hr standard)	0	0	0
	Annual Arithmetic Mean (µg/m ³)	19.8	21.8	21.7



Table 3.2-1. Ambient Air Quality Monitoring Concentrations

Pollutant	Pollutant Concentration and Standard	Maximum Concentration		
		2016	2017	2018
	Exceed 20 µg/m3? (state Annual Standard)	No	Yes	Yes
Fine Particulate Matter (PM _{2.5})	Maximum 24-hour Concentration (µg/m3)	33.5	23.9	42.7
	Days > 35 µg/m3 (federal 24-hr standard)	0	0	1
	Annual Arithmetic Mean (µg/m3)	8.4	8.7	—
	Exceed 12 µg/m3? (state Annual Standard)	No	No	—
	Exceed 12 µg/m3? (federal Annual Standard)	No	No	—

Source: CARB 2020; U.S. EPA 2020

Notes:

CO=carbon monoxide; NO₂=nitrogen dioxide; O₃=ozone; PM₁₀=particles of 10 micrometers and smaller; PM_{2.5}=particles of 2.5 micrometers and smaller; ppb=parts per billion; ppm=parts per million; SO₂=sulfur dioxide

Carbon Monoxide

CO is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircrafts, and trains. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological condition, primarily wind speed, topography, and atmospheric stability. As shown in Table 3.2-1, the CO concentrations in the vicinity of the project have not exceeded the federal or state standards in the past 3 years.

Ozone

O₃ is a colorless gas that is formed in the atmosphere when reactive organic gases (ROG), which includes volatile organic compounds (VOC), and nitrogen oxides (NO_x) react in the presence of ultraviolet sunlight. O₃ is not a primary pollutant; it is a secondary pollutant formed by complex interactions of two pollutants directly emitted into the atmosphere. The primary sources of ROG and NO_x, the components of O₃, are automobile exhaust and industrial sources. 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. The greatest source of smog-producing gases is the automobile. Short-term exposure (lasting for a few hours) to O₃ at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. As shown in Table 3.2-1, the 8-hour O₃ standards were exceeded in 2017.

Nitrogen Dioxide

NO₂, like O₃, is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO₂ are collectively referred to as NO_x and are major contributors to O₃ formation. NO₂ also contributes to the formation of PM₁₀. High concentrations of NO₂ can result in a brownish-red cast to the atmosphere with reduced visibility and can cause breathing difficulties. As shown in Table 3.2-1, there have been no exceedances of the state or federal NO₂ standards within the past 3 years.

Oxides of Sulfur

SO₂ is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Main sources of SO₂ are coal and oil used in power plants and industries. Generally, the highest levels of SO₂ are found near large industrial complexes. In recent years, SO₂ concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO₂ and limits on the sulfur content of fuels. SO₂ is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. As shown in Table 3.2-1, there were no exceedances of the state or federal SO₂ standards within the past 3 years.

Coarse Particulate Matter

Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. Inhalable particulate matter, or PM₁₀, is about 1/7 the thickness of a human hair. Major sources of PM₁₀ include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. When inhaled, PM₁₀ particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM₁₀ can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. As shown in Table 3.2-1, the 24-hour state standard was exceeded once in 2017 and the annual state standard was exceeded in all 3 years. The federal PM₁₀ standard was not exceeded.

Fine Particulate Matter

Fine particulate matter, or PM_{2.5}, is roughly 1/28 the diameter of a human hair. PM_{2.5} results from fuel combustion (e.g., motor vehicles, power generation, and industrial facilities), residential fireplaces, and wood stoves. In addition, PM_{2.5} can be formed in the atmosphere from gases such as SO₂, NO_x, and VOC. Very small particles of substances, such as lead, sulfates, and nitrates can cause lung damage directly. These substances can be absorbed into the blood stream and cause damage elsewhere in the body. These substances can transport absorbed gases, such as chlorides or ammonium, into the lungs and cause injury. Whereas PM₁₀ tends to collect in the upper portion of the respiratory system, PM_{2.5} is so tiny that it can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility. As shown in Table 3.2-1, the 24-hour federal standard was exceeded once in 2017 and 2018. The state and federal annual standards were not exceeded in the past 3 years.

Volatile Organic Compounds

VOCs are carbon-containing compounds that evaporate into the air. VOCs contribute to the formation of smog and/or may be toxic. VOCs often have an odor, and examples include gasoline, alcohol, and the solvents used in paints. SDAPCD does not directly monitor VOCs. There are no specific state or federal VOC thresholds, as they are regulated by individual air districts as O₃ precursors.

Toxic Air Contaminants

A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancer health effects. A toxic substance released into the air is considered a toxic air contaminant (TAC). Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced either on short-term (acute) or long-term (chronic) exposure to a given TAC. California Air Resources Board (CARB) has identified diesel engine exhaust particulate matter as the predominant TAC in California. Diesel particulate matter is emitted into the air by diesel-powered mobile vehicles, including heavy-duty diesel trucks, construction equipment, and passenger vehicles. Certain ROGs may also be designated as TACs.

Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive populations (sensitive receptors) that are in proximity to localized sources of toxics, particulate matter, and CO are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The majority of the sensitive receptors within or adjacent to the project site are residential uses.

3.2.3 Applicable Laws, Regulations, and Policies

Federal

Federal Clean Air Act

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality. These laws, and related regulations by the U.S. EPA and CARB, set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: CO, NO₂, O₃, PM₁₀ and PM_{2.5}, and SO₂. In addition, national standards exist for lead (Pb). The NAAQS standards are set at levels that protect public health with a margin of safety and are subject to periodic review and revision. TACs (air toxics) are covered as well.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under NEPA. In addition to this environmental analysis, a parallel conformity requirement under the FCAA also applies.

The FCAA requires U.S. EPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS have been achieved. The federal standards are summarized in Table 3.2-2. The U.S. EPA has classified the SDAB as attainment/unclassified for CO, PM₁₀, PM_{2.5}, SO₂, Pb, and NO₂ and nonattainment for O₃.



Table 3.2-2. State and Federal Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State Standard ^h	Federal Standard ⁱ	Principal Health and Atmospheric Effects	Typical Sources	SDAB Attainment Status
O ₃ ^b	1 hour	0.09 ppm	---	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known TACs. Biogenic VOC may also contribute.	Low-altitude O ₃ is almost entirely formed from ROG or VOC and NO _x in the presence of sunlight and heat. Major sources include motor vehicles and other mobile sources, solvent evaporation, and industrial and other combustion processes.	Federal: Marginal Nonattainment (8-hour)
	8 hours	0.070 ppm	0.070 ppm ^d (4th highest in 3 years)			State: Nonattainment (1-hour and 8-hour)
CO	1 hour	20 ppm	35 ppm	CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. CO also is a minor precursor for photochemical O ₃ .	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.	Federal: Attainment
	8 hours	9.0 ppm ^a	9 ppm			State: Attainment
	8 hours (Lake Tahoe)	6 ppm	---			
Respirable Particulate Matter (PM ₁₀) ^b	24 hours	50 µg/m ³	150 µg/m ³	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some TACs. Many aerosol and solid compounds are part of PM ₁₀ .	Dust- and fume-producing industrial and agricultural operations; combustion smoke and vehicle exhaust; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources.	Federal: Unclassified
	Annual	20 µg/m ³	--- ^b (expected number of days above standard < or equal to 1)			State: Nonattainment
Fine Particulate Matter (PM _{2.5}) ^b	24 hours	—	35 µg/m ³	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter – a TAC – is in the PM _{2.5} size range. Many toxic	Combustion including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical (including photochemical) reactions	Federal: Attainment
	Annual	12 µg/m ³	12.0 µg/m ³			State: Nonattainment
	Secondary	—	15 µg/m ³			

Table 3.2-2. State and Federal Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State Standard ^h	Federal Standard ⁱ	Principal Health and Atmospheric Effects	Typical Sources	SDAB Attainment Status
	Standard (annual)		(98th percentile over 3 years)	and other aerosol and solid compounds are part of PM _{2.5} .	involving other pollutants including NO _x , SO _x , ammonia, and ROG.	
NO ₂	1 hour	0.18 ppm	100 ppb ^f (98th percentile over 3 years)	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Contributes to acid rain. Part of the “NO _x ” group of O ₃ precursors.	Motor vehicles and other mobile sources; refineries; industrial operations.	Federal: Attainment
	Annual	0.030 ppm	0.053 ppm			State: Attainment
SO ₂	1 hour	0.25 ppm	75 ppb ^g (99th percentile over 3 years)	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing; some natural sources like active volcanoes. Limited contribution possible from heavy-duty diesel vehicles if ultra-low sulfur fuel not used.	Federal: Attainment
	3 hours	—	0.5 ppm ⁱ			State: Attainment
	24 hours	0.04 ppm	0.14 ppm			
	Annual Arithmetic Mean	—	0.03 ppm			State: Attainment
Pb ^c	Monthly	1.5 µg/m ³	—1.5 µg/m ³	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also a TAC and water pollutant.	Pb-based industrial processes like battery production and smelters. Pb paint, leaded gasoline. Aerially deposited Pb from gasoline may exist in soils along major roads.	Federal: Attainment
	Calendar Quarter	—	0.15 µg/m ^{3j}			State: Attainment
	Rolling 3-month average	—				



Table 3.2-2. State and Federal Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State Standard ^h	Federal Standard ⁱ	Principal Health and Atmospheric Effects	Typical Sources	SDAB Attainment Status
Sulfate	24 hours	25 µg/m ³	—	Premature mortality and respiratory effects. Contributes to acid rain. Some TACs attach to sulfate aerosol particles.	Industrial processes, refineries and oil fields, mines, natural sources like volcanic areas, salt-covered dry lakes, and large sulfide rock areas.	Federal: —
						State: Attainment
Hydrogen Sulfide (H ₂ S)	1 hour	0.03 ppm	—	Colorless, flammable, poisonous. Respiratory irritant. Neurological damage and premature death. Headache, nausea.	Industrial processes such as: refineries and oil fields, asphalt plants, livestock operations, sewage treatment plants, and mines. Some natural sources like volcanic areas and hot springs.	Federal: —
						State: Attainment/ Unclassified
Visibility Reducing Particles	8 hours	Visibility of 10 miles or more (Tahoe: 30 miles) at relative humidity less than 70 percent	—	Reduces visibility. Produces haze. NOTE: not related to the Regional Haze program under the FCAA, which is oriented primarily toward visibility issues in National Parks and other “Class I” areas.	See particulate matter above.	Federal: —
						State: Attainment/ Unclassified
Vinyl Chloride ^c	24 hours	0.01 ppm	—	Neurological effects, liver damage, cancer. Also considered a TAC.	Industrial processes	Federal: —
						State: Attainment/ Unclassified

Sources: CARB 2016, CARB 2018

Table 3.2-2. State and Federal Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State Standard ^h	Federal Standard ⁱ	Principal Health and Atmospheric Effects	Typical Sources	SDAB Attainment Status
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Notes:

- ^a Rounding to an integer value is not allowed for the state 8-hour CO standard. Violation occurs at or above 9.05 ppm.
- ^b Annual PM₁₀ NAAQS revoked October 2006; was 50 µg/m³. 24-hour PM_{2.5} NAAQS tightened October 2006; was 65 µg/m³. Annual PM_{2.5} NAAQS tightened from 15 µg/m³ to 12 µg/m³ December 2012, and secondary standard set at 15 µg/m³.
- ^c The CARB has identified vinyl chloride and the particulate matter fraction of diesel exhaust as TACs. Diesel exhaust particulate matter is part of PM₁₀ and, in larger proportion, PM_{2.5}. Both the CARB and the EPA have identified Pb and various organic compounds that are precursors to O₃ and PM_{2.5} as TACs. There are no exposure criteria for substantial health effects due to TACs, and control requirements may apply at ambient concentrations below any criteria levels specified above for these pollutants or the general categories of pollutants to which they belong.
- ^d Prior to June 2005, the 1-hour NAAQS was 0.12 ppm. Emission budgets for 1-hour O₃ are still in use in some areas where 8-hour O₃ emission budgets have not been developed, such as the San Francisco Bay Area. On October 1, 2015, the national 8-hour O₃ primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- ^e The 0.08 ppm 1997 O₃ standard is revoked FOR CONFORMITY PURPOSES ONLY when area designations for the 2008 0.75 ppm standard become effective for conformity use (July 20, 2013). Conformity requirements apply for all NAAQS, including revoked NAAQS, until emission budgets for newer NAAQS are found adequate, SIP amendments for the newer NAAQS are approved with an emission budget, EPA specifically revokes conformity requirements for an older standard, or the area becomes attainment/unclassified. SIP-approved emission budgets remain in force indefinitely unless explicitly replaced or eliminated by a subsequent approved SIP amendment. During the “Interim” period prior to availability of emission budgets, conformity tests may include some combination of build vs. no build, build vs. baseline, or compliance with prior emission budgets for the same pollutant.
- ^f Final 1-hour NO₂ NAAQS published in the FR on February 9, 2010, effective March 9, 2010. Initial area designation for California (2012) was attainment/unclassifiable throughout. Project-level hot-spot analysis requirements do not currently exist. Near-road monitoring starting in 2013 may cause redesignation to nonattainment in some areas after 2016.
- ^g The EPA finalized a 1-hour SO₂ standard of 75 ppb in June 2010. Nonattainment areas have not yet been designated as of September 2012.
- ^h California standards for O₃, CO (except 8-hour Lake Tahoe), SO₂ (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the CCR.
- ⁱ National standards (other than O₃, particulate matter, and those based on annual arithmetic mean) 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 three 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 one. For PM_{2.5}, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
- ^j Pb NAAQS are not considered in Transportation Conformity analysis.

CAAQS=California Ambient Air Quality Standards; CARB=California Air Resources Board; CCR=California Code of Regulations; CO=carbon monoxide; EPA=Environmental Protection Agency; FCAA=Federal Clean Air Act; NAAQS=National Ambient Air Quality Standards; NO₂=Nitrogen Dioxide; NO_x=nitrogen oxides; O₃=ozone; Pb=lead; PM₁₀=particles of 10 micrometers and smaller; PM_{2.5}=particles of 2.5 micrometers and smaller; ppm=parts per million; ROG=reactive organic gases; SDAB=San Diego Air Basin; SIP=state implementation plan; SO₂=sulfur dioxide; SO_x=sulfur oxides; TAC=toxic air contaminant; VOC=volatile organic compounds

State

California Clean Air Act

In California, the California Clean Air Act (CCAA) is administered by CARB at the state level and by the air quality management districts and air pollution control districts at the regional and local levels. CARB, which became part of the California EPA in 1991, is responsible for meeting the state requirements of the FCAA, administering the CCAA, and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the state to endeavor to achieve and maintain CAAQS. CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

CARB regulates mobile air pollution sources, such as motor vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications, which became effective in March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels.

The state standards are summarized in Table 3.2-2. CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether CAAQS have been achieved. Under CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous 3 calendar years. Exceedances that are impacted 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. Under CCAA, SDAB is designated as a nonattainment area for O₃, PM_{2.5}, and PM₁₀.

California State Implementation Plan

The 1990 amendments to the FCAA set new deadlines for attainment based on the severity of the pollution problem and launched a comprehensive planning process for attaining NAAQS. The promulgation of the national 8-hour O₃ standard and PM_{2.5} standards in 1997 resulted in additional statewide air quality planning efforts. In response to new federal regulations, state implementation plans (SIP) also began to address ways to improve visibility in national parks and wilderness areas. SIPs are not single documents but rather a compilation of new and previously submitted plans, programs, district rules, state regulations, and federal controls.

Many of California's SIPs rely on the same core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations, and limits on emissions from consumer products. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the FR. CFR Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items which are included in the California SIP.

Regional

San Diego Air Pollution Control District

The SDAPCD is the local agency responsible for the administration and enforcement of air quality regulations for the SDAB, which includes all of San Diego County. SDAPCD regulates most air pollutant sources, except for motor vehicles, marine vessels, aircraft, and agricultural equipment, which are regulated by CARB or the U.S. EPA. State and local government projects, as well as projects proposed by the private sector, are subject to SDAPCD requirements if the sources are regulated by the SDAPCD. Additionally, SDAPCD, along with CARB, maintains and operates ambient air quality monitoring stations at numerous locations throughout San Diego County. These stations are used to measure and monitor ambient criteria and toxic air pollutant levels.

The San Diego Association of Governments (SANDAG) is the San Diego region's primary public planning, transportation, and research agency, providing the public forum for regional policy decisions about growth, transportation planning and construction, environmental management, housing, open space, energy, public safety, and binational topics. SANDAG directors are mayors, councilmembers, and a supervisor from each of the region's 18 cities and county government. SDAPCD and SANDAG are responsible for developing and implementing the clean air plan for attainment and maintenance of NAAQS in the SDAB. The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1991 and is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, 2004, 2009, and most recently in December 2016 (SDAPCD 2016). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O₃. SDAPCD has also developed the SDAB's input to the SIP, which is required under FCAA for pollutants that are designated as being in nonattainment for national air quality standards for the SDAB.

The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the county, to project future emissions and then establish the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the county as part of the development of their general plans. As such, projects that propose development consistent with the growth anticipated by the general plans would be consistent with the RAQS. In the event that a project would propose development that is less dense than anticipated within the general plan, the project would likewise be consistent with the RAQS. If the project proposes development that is greater than that anticipated in the general plan and SANDAG's growth projections, the project might be in conflict with the RAQS and SIP and might have a potentially significant impact related to air quality.

The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the SDAB. The SIP also includes rules and regulations that have been adopted by SDAPCD to control emissions from stationary sources. These SIP-approved rules may be used as a guideline to determine whether a project's emissions would have the potential to conflict with the SIP and, thereby, hinder attainment of NAAQS for O₃.

In December 2005, SDAPCD adopted the Measures to Reduce Particulate Matter in San Diego County. This document identifies fugitive dust as the major source of directly emitted particulate matter in the county, with mobile sources and residential wood combustion as minor contributors. Data on PM_{2.5} source apportionment indicates that the main contributors to PM_{2.5} in the county are combustion organic carbon, and ammonium sulfate and ammonium nitrate from combustion sources. The main contributors to PM₁₀ include resuspended soil and road dust from unpaved and paved roads,



construction and demolition sites, and mineral extraction and processing. Based on the report’s evaluation of control measures recommended by CARB to reduce particulate matter emissions, the SDAPCD adopted Rule 55, the Fugitive Dust Rule, in June 2009. SDAPCD requires that construction activities implement the measures listed in Rule 55 to minimize fugitive dust emissions. Rule 55 requires the following:

1. No person shall engage in construction or demolition activity in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60 minute period; and
2. Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall be minimized by the use of any of the equally effective track-out/carry-out and erosion control measures listed in Rule 55 that apply to the project or operation. These measures include: track-out grates or gravel beds at each egress point; wheel-washing at each egress during muddy conditions; soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; watering for dust control; and using secured tarps or cargo covering, watering, or treating of transported material for outbound transport trucks. Erosion control measures must be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations.

City of San Diego Municipal Code

The San Diego Municipal Code addresses odor impacts at Chapter 14, Article 2, Division 7 paragraph 142.0710, “Air Contaminant Regulations” which states:

Air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located.

3.2.4 Environmental Impacts

This section presents the methodology applied for the evaluation, the significance criteria used for considering project impacts related to air quality resources, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level component includes a PMPA to incorporate Parcels A, B, and C into the PMP, which requires a land use designation be assigned. The parcels are proposed to be assigned a commercial recreation land use designation. At this time, no construction or operational activities are proposed on Parcels A, B, and C. The impact analysis below evaluates the reasonable scenario of commercial development on Parcels A, B, and C. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to a CDP and project approval, and any additional CEQA compliance.-

Methodology

Study Area

The study area for air quality includes the affected air basin: the SDAB.

Methods

CRITERIA AIR POLLUTANTS

Emissions of criteria air pollutants were estimated using existing conditions information, project construction details, and project operations information, as well as a combination of emission factors from the following sources. The California Emissions Estimator Model (CalEEMod) land use emissions computer model was used for the following:

- CalEEMod (Version 2016.3.2) emission model for estimating exhaust emissions from off-road construction equipment and on-road motor vehicles

As detailed in the Air Quality and Greenhouse Gas Emissions Study (Appendix D), neither the City of San Diego nor the District have developed CEQA thresholds of significance for air quality. Table 3.2-3 shows the significance thresholds that have been established by SDAPCD. Projects in the SDAB with construction- or operation-related emissions that exceed any of the emission thresholds are considered to be significant under CEQA.

Table 3.2-3 San Diego Air Pollution Control District Pollution Thresholds for Stationary Sources

Pollutant	Emission Rate		
	lb/hour	lb/day	tons/yr
CO	100	550	100
NO _x	25	250	40
PM ₁₀	3	100	15
SO _x	25	250	40
Pb and Pb Compounds	—	3.2	0.6
PM _{2.5}	—	55*	—
VOC or ROG	—	137	15

Source: SDAPCD 1999

Notes:

* The SDAPCD do not list a threshold for PM_{2.5}; therefore, the threshold from the South Coast Air Quality Management District is used for determining significance.

CO=carbon monoxide; NO_x=nitrogen oxides; PM₁₀=particles of 10 micrometers and smaller; PM_{2.5}=particles of 2.5 micrometers and smaller; ROG=reactive organic gases; SO_x=sulfur oxides; Pb=lead; SDAPCD=San Diego County Air Pollution Control District; VOC=volatile organic compounds



CARBON MONOXIDE HOT-SPOTS

For CO hotspot impacts, the significance of localized project impacts under CEQA depend on whether ambient CO levels in the vicinity of the project are above or below state and federal CO standards. The local emission concentration standards for CO are:

- California state 1-hour CO standard of 20.0 parts per million (ppm); and/or
- California state 8-hour CO standard of 9.0 ppm.

A project with daily emission rates, risk values, or concentrations below these thresholds is generally considered to have a less than significant impact on air quality.

ODORS

Determining the significance of potential odor impacts should be based on what is known about the quantity of the odor compounds that would result from the project's proposed uses, the types of neighboring uses potentially impacted, the distances between the project's point sources and the neighboring uses (such as sensitive receptors), and the resultant concentrations at the receptors. A more detailed odor analysis may be required to fully evaluate and determine significance of the potential impacts if the proposed project would result in objectionable odors to nearby sensitive receptors.

For a project proposing placement of sensitive receptors near an existing odor source, a significant odor impact will be identified if the project site is closer to the odor source than any existing sensitive receptor where there has been more than one confirmed, or three confirmed complaints per year, (averaged over a 3 week period) about the odor source.

For projects proposing placement of sensitive receptors near a source of odors where there is not currently nearby receptors, the determination of significance should be based on the distance and frequency at which odor complaints from the public have occurred in the vicinity of a similar odor source at another location.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to air quality are considered significant if any of the following occur:

- a) Conflict with or obstruct implementation of the applicable air quality plan
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard
- c) Expose sensitive receptors to substantial pollutant concentrations
- d) Result in other emissions such as those leading to odors adversely affecting a substantial number of people

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (d) would result in no impact for the project-level wetland mitigation bank creation; therefore, analysis of the wetland mitigation bank creation component is not included in the analysis below (see Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR).

Impact Analysis

Threshold (a) Conflict with or obstruct implementation of the applicable air quality plan.

Project Level – Wetland Mitigation Bank

The applicable air quality plans are the SIP and RAQS. The SIP includes strategies and tactics to be used to attain and maintain acceptable air quality in the SDAB. The RAQS is a separate document that contains a list of strategies to maintain acceptable air quality. Consistency with the RAQS is typically determined by two standards. The first standard is whether the proposed project would exceed growth assumptions contained in the RAQS. The second standard is whether the proposed project would increase the frequency or severity of existing air quality violations, contribute to new violations, or delay the timely attainment of air quality standards or interim reductions as specified in the RAQS.

The RAQS and SIP are intended to address cumulative impacts in the SDAB based on future growth predicted by SANDAG in the 2050 Regional Growth Forecast Update (SANDAG 2010). SANDAG uses growth projections from the local jurisdictions' adopted general plans; therefore, development consistent with the applicable general plan would be generally consistent with the growth projections in the air quality plans. Cumulative development would generally not be expected to result in a significant impact in terms of conflicting with RAQS, because the cumulative projects would be required to demonstrate that the proposed development is consistent with local planning documents. However, some projects may involve plan amendments that would exceed the growth assumptions in the planning document and RAQS. Therefore, cumulative development in the SDAB may have the potential to exceed the growth assumptions in the RAQS and result in a conflict with applicable air quality plans.

As described in Chapter 2, Project Description, very minimal maintenance would be required for operation of the facility, amounting to one employee related trip monthly for 5 years and then once annually in the long term. The wetland mitigation bank is not expected to result in any long-term regional air quality impacts because of the negligible emissions resulting from operational activities. Therefore, the wetland mitigation bank is consistent and would not conflict with implementation of the SIP and RAQS. Impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project level review by the District-. As discussed above, the applicable air quality plans are the SIP and RAQS. As the future commercial development of Parcels A, B, and C would not generate emissions that exceed the SDAPCD's thresholds [see Threshold (b) below] the project is not expected to result in any long-term regional air quality impacts. Therefore, the program-level PMPA for Parcels A, B, and C would not conflict with implementation of the SIP and RAQS. Impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.



PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

The activities associated with the construction of the proposed wetland mitigation bank would not overlap with the construction of the future commercial development, which is not scheduled as there is no proposal being considered at this time. Therefore, the construction emissions associated with the project-level component would not combine with the emissions generated by the program-level component. The proposed wetland mitigation bank would be completed prior to the opening day of the future commercial development. However, as there are no long-term operational emissions associated with the wetland mitigation bank, it would not increase long-term emissions beyond the estimated long-term emissions that would be generated by the future commercial development. The impact from the combined emissions from both the project-level and program-level components would be less than significant.

Threshold (b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard

Project Level – Wetland Mitigation Bank

CONSTRUCTION

Construction of the wetland mitigation bank would require the use of off-road construction equipment. Construction activities produce combustion emissions from various sources such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities envisioned on site would vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions. A description of construction phases, expected equipment, and duration is included in Chapter 2, Project Description. A construction crew of approximately 14 people would be on site for the majority of construction, and the peak number of personnel on site would be during landscaping activities and would be up to 36 people. The peak number of truck trips would occur during mass grading and would utilize 80 hauling trucks per day for 6 months.

The most recent version of the CalEEMod model (Version 2016.3.2) was used to calculate the construction emissions. The results of the modeling are shown in Table 3.2-4 and Table 3.2-5 for the peak daily and annual conditions for the creation of the wetland mitigation bank. The analysis assumes that construction would take approximately 17 months and begin in 2021. The CalEEMod output reports are in the Air Quality and Greenhouse Gas Emissions Study (Appendix D).

**Table 3.2-4. Peak Day Construction Emissions
 (pounds per day)**

Year	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
2021	44.1	88.1	6.9	0.1	13.4	7.8
2022	21.2	38.8	3.8	0.0	7.1	4.1
SDAPCD Threshold	550	250	75	250	100	55
Significant?	NO	NO	NO	NO	NO	NO

Notes:

CO=carbon monoxide; NO_x=nitrogen oxides; PM₁₀=particles of 10 micrometers and smaller; PM_{2.5}=particles of 2.5 micrometers and smaller; ROG=reactive organic gases; SDAPCD=San Diego County Air Pollution Control District; SO_x=sulfur oxides

**Table 3.2-5. Annual Construction Emissions
 (tons per year)**

Year	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
2021	6.1	11.7	1.0	0.0	1.9	1.2
2022	1.2	1.7	0.2	0.0	0.4	0.2
SDAPCD Threshold	100	40	15	40	15	—
Significant?	NO	NO	NO	NO	NO	—

Notes:

CO=carbon monoxide; NO_x=nitrogen oxides; PM₁₀=particles of 10 micrometers and smaller; PM_{2.5}=particles of 2.5 micrometers and smaller; ROG=reactive organic gases; SDAPCD=San Diego County Air Pollution Control District; SO_x=sulfur oxides

As shown in Table 3.2-4 and Table 3.2-5, the wetland mitigation bank's construction emissions would not exceed either the SDAPCD's daily or annual emission thresholds.

Construction activities have the potential to result in fugitive dust; however, all active grading areas would be watered at least twice per day, as required by SDAPCD Rule 55, which requires that visible dust emissions do not extend beyond the property line for more than 3 minutes in any 60-minute period.

Therefore, short-term air quality impacts from construction of the wetland mitigation bank would be less than significant.



OPERATION

Long-term air pollutant emission impacts are those associated with stationary sources and mobile sources involving any project-related changes. Once all performance standards have been met, the wetland mitigation bank is anticipated to be self-sustaining. However, because of the urban surroundings, long-term management may be needed for maintenance of:

- Invasive species monitoring and removal;
- Trash removal;
- Maintenance of site control measures (e.g., fencing); and
- Restoration of any damage from human or maintenance activities or natural phenomenon.

As described in Chapter 2, Project Description, very minimal maintenance would be required for operation of the facility amounting to one employee related trip monthly for 5 years and then once annually in the long term. Therefore, the project's operational emissions would not exceed SDAPCD's thresholds. Impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. This impact analysis evaluates a reasonable development scenario for Parcels A, B, and C, which is a future commercial land use and relies on the reasonable development assumptions identified in Chapter 2, Project Description.

CONSTRUCTION

Construction activities produce combustion emissions from various sources such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities envisioned on site would vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions.

The most recent version of the CalEEMod model (Version 2016.3.2) was used to calculate the construction emissions. The potential impacts were estimated using the default construction equipment and durations in CalEEMod for 105,000 square feet of total commercial development across all three parcels. The results of the modeling are shown in Table 3.2-6 and Table 3.2-7 for the peak daily and annual conditions for the project site. The CalEEMod output reports are in the Air Quality and Greenhouse Gas Emissions Study (Appendix D).

**Table 3.2-6. Program Level – Peak Day Construction Emissions
 (pounds per day)**

Year	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
2023	28.5	34.6	3.4	0.1	9.5	5.7
2024	19.2	16.0	28.8	0.0	1.1	0.8
SDAPCD Threshold	550	250	75	250	100	55
Significant?	NO	NO	NO	NO	NO	NO

Notes:

CO=carbon monoxide; NO_x=nitrogen oxides; PM₁₀=particles of 10 micrometers and smaller; PM_{2.5}=particles of 2.5 micrometers and smaller; ROG=reactive organic gases; SDAPCD=San Diego County Air Pollution Control District; SO_x=sulfur oxides

**Table 3.2-7. Program Level - Annual Construction Emissions
 (tons per year)**

Year	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
2023	2.3	2.2	0.2	0.0	0.2	0.1
2024	1.1	0.9	1.3	0.0	0.1	0.0
SDAPCD Threshold	100	40	15	40	15	—
Significant?	NO	NO	NO	NO	NO	—

Notes:

CO=carbon monoxide; NO_x=nitrogen oxides; PM₁₀=particles of 10 micrometers and smaller; PM_{2.5}=particles of 2.5 micrometers and smaller; ROG=reactive organic gases; SDAPCD=San Diego County Air Pollution Control District; SO_x=sulfur oxides

As shown in Table 3.2-6 and Table 3.2-7, the program-level construction emissions would not exceed either SDAPCD’s daily or annual emission thresholds.

Construction activities have the potential to result in fugitive dust. However, all active grading areas would be watered at least twice per day, as required by SDAPCD Rule 55, which requires that visible dust emissions do not extend beyond the property line for more than 3 minutes in any 60-minute period.

Therefore, short-term air quality impacts from construction of future commercial development would be less than significant.

OPERATION

Long-term air pollutant emission impacts are those associated with stationary sources and mobile sources involving any project-related changes. Future commercial development would have potential



long-term operational air quality impacts from mobile source emissions associated with project related vehicular trips and stationary source emissions from on-site energy consumption. The most recent version of the CalEEMod model (Version 2016.3.2) was used to calculate the operational emissions. The potential impacts were estimated using the traffic volumes included in the transportation study memo (Appendix N2) and the default settings in CalEEMod for a total of 105,000 square feet of specialty retail/strip commercial development across all three parcels. The results of the modeling are shown in Table 3.2-8 and Table 3.2-9 for the peak daily and annual conditions for the project site.

**Table 3.2-8. Program Level – Peak Day Operation Emissions
(pounds per day)**

Source	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
Area	0.01	0.0	2.9	0.0	0.0	0.0
Energy	0.05	0.1	0.0	0.0	0.0	0.0
Mobile	45.0	17.3	4.9	0.2	13.8	3.8
Total	45.1	17.4	7.8	0.2	13.8	3.8
SDAPCD Threshold	550	250	75	250	100	55
Significant?	NO	NO	NO	NO	NO	NO

Notes:

CO=carbon monoxide; NO_x=nitrogen oxides; PM₁₀=particles of 10 micrometers and smaller; PM_{2.5}=particles of 2.5 micrometers and smaller; ROG=reactive organic gases; SDAPCD=San Diego County Air Pollution Control District; SO_x=sulfur oxides

**Table 3.2-9. Program Level – Annual Operation Emissions
 (tons per year)**

Source	CO	NO _x	ROG	SO _x	PM ₁₀	PM _{2.5}
Area	0.0	0.0	0.5	0.0	0.0	0.0
Energy	0.0	0.0	0.0	0.0	0.0	0.0
Mobile	7.6	3.0	0.8	0.02	2.3	0.6
Total	7.6	3.0	1.3	0.02	2.3	0.6
SDAPCD Threshold	100	40	15	40	15	—
Significant?	NO	NO	NO	NO	NO	—

Notes:

CO=carbon monoxide; NO_x=nitrogen oxides; PM₁₀=particles of 10 micrometers and smaller; PM_{2.5}=particles of 2.5 micrometers and smaller; ROG=reactive organic gases; SDAPCD=San Diego County Air Pollution Control District; SO_x=sulfur oxides

As shown in Table 3.2-8 and Table 3.2-9, the program-level operational emissions would not exceed either SDAPCD’s daily or annual emission thresholds. Therefore, long-term operational air quality impacts from future commercial development would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

The activities associated with the construction of the proposed wetland mitigation bank would not overlap with the construction of the future commercial development. Therefore, the construction emission within one of the areas would not contribute to the emissions generated within the other. The proposed wetland mitigation bank would be completed prior to the opening day of the future commercial development. However, as there are no long-term operational emissions associated with the wetland mitigation bank, it would not increase long-term emissions beyond the estimated long-term emissions that would be generated by the future commercial development. The impact from the combined air emissions from both the project-level and program-level components would be less than significant.

Threshold (c) Expose sensitive receptors to substantial pollutant concentrations.*Project Level – Wetland Mitigation Bank***TOXIC AIR CONTAMINANTS**

Construction of the wetland mitigation bank would result in emissions of diesel particulate matter from heavy-duty construction equipment and trucks operating at the project site (e.g., water trucks and haul trucks). Diesel particulate matter is characterized as a TAC by CARB. The Office of Environmental Health Hazard Assessment has identified carcinogenic and chronic noncarcinogenic effects from long-term (chronic) exposure; however, it has not identified health effects due to short-term (acute) exposure to diesel particulate matter. There are several residential communities located within close proximity to the proposed construction areas. However, due to the size of the project, the construction duration adjacent to any one sensitive land use would be minimal. Over the entire project construction period, the average distance to the off-site sensitive receptors would be 250 feet. In addition, the mass grading phase, the phase with the largest equipment, would require only 6 months to complete. Additionally, as shown in Table 3.2-4 and Table 3.2-5, the wetland mitigation bank's construction emissions would not exceed either the SDAPCD's daily or annual emission thresholds. Therefore, the project construction would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant.

NATURALLY OCCURRING ASBESTOS

The project is located in San Diego County, which is not among the counties listed as containing serpentine and ultramafic rock (Van Gosen and Clinkenbeard 2011). Therefore, an impact from naturally occurring asbestos during construction of the project on the project site would not occur. Impacts would be less than significant.

LONG-TERM MICROSCALE (CO HOT SPOT) ANALYSIS

Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's impact on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored in the Chula Vista – 80 East J Street station showed a highest recorded 1-hour concentration of 1.6 ppm (state standard is 20 ppm) and a highest 8-hour concentration of 1.4 ppm (state standard is 9 ppm) during the past 3 years (Table 3.2-1). The highest CO concentrations would normally occur during peak traffic hours; therefore, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

Given the extremely low level of CO concentrations in the vicinity of the project site, the minimal maintenance trips required for the project site (once monthly for 5 years and annually in the long term) are not expected to result in the CO concentrations exceeding the state or federal CO standards. Impacts would be less than significant.

CONCLUSION

Construction and operation of the wetland mitigation bank would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. This impact analysis evaluates a reasonable development scenario for Parcels A, B, and C, which is a future commercial land use and relies on the reasonable development assumptions identified in Chapter 2, Project Description.

TOXIC AIR CONTAMINANTS

Similar to the project-level discussion, construction of future commercial development would result in emissions of diesel particulate matter from heavy-duty construction equipment and trucks operating at the project site. There are several residential communities located within close proximity to the proposed construction areas. However, due to the size of the project, the construction duration adjacent to any one sensitive land use would be minimal. As shown in Table 3.2-6, Table 3.2-7, Table 3.2-8, and Table 3.2-9, construction and operation of future commercial development would not exceed either SDAPCD's daily or annual emission thresholds. Therefore, the future commercial development construction would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant.

NATURALLY OCCURRING ASBESTOS

The project is located in San Diego County, which is not among the counties listed as containing serpentine and ultramafic rock. Therefore, the impact from naturally occurring asbestos during construction of future commercial development on the project site would be minimal to none. Impacts would be less than significant.

LONG-TERM MICROSCALE (CO HOT SPOT) ANALYSIS

Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended, to determine a project's impact on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored in the Chula Vista – 80 East J Street station showed a highest recorded 1-hour concentration of 1.6 ppm (state standard is 20 ppm) and a highest 8-hour concentration of 1.4 ppm (state standard is 9 ppm) during the past 3 years (Table 3.2-1). The highest CO concentrations would normally occur during peak traffic hours; therefore, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

Given the extremely low level of CO concentrations in the vicinity of the project site, the 126 AM and 378 PM peak hour trips associated with the future commercial developments are not expected to result in the CO concentrations exceeding the state or federal CO standards. Impacts would be less than significant.



CONCLUSION

Construction and operation of future commercial development would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

The activities associated with the construction of the proposed wetland mitigation bank would not overlap with the construction of the future commercial development. Therefore, the construction emission within one of the areas would not contribute to the emissions generated within the other. The proposed wetland mitigation bank would be completed prior to the opening day of the future commercial development. However, as there are no long-term operational emissions associated with the wetland mitigation bank, it would not contribute to the long-term emissions generated by the future commercial development. Impacts from the proposed project would be less than significant.

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

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (d) would result in no impact for the project-level wetland mitigation bank creation; therefore, is not analyzed below.

Program Level – Parcels A, B, and C Port Master Plan Amendment

Land uses commonly considered to be potential sources of odorous emissions include wastewater treatment plants, sanitary landfills, food processing facilities, chemical manufacturing plants, rendering plants, paint/coating operations, and concentrated agricultural feeding operations and dairies (CARB 2005). At this time, no construction or operational activities is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. The PMP allows for the following I uses under the commercial recreation land use designation: hotels, restaurants, convention center, recreational vehicle parks, specialty shopping, pleasure craft marinas, water dependent educational and recreational program facilities and activities, dock and dine facilities, and sportfishing. These allowable land uses are not considered sources of odorous emissions.

The future commercial development construction activities could result in emission of odors from construction equipment and vehicles (e.g., diesel exhaust). It is anticipated that these odors would be short term, limited in extent at any given time, and distributed throughout the project site during the duration of construction and would not affect a substantial number of individuals. Once operational, the commercial/retail uses are not expected to be a significant source of long-term odors.

Therefore, construction and operation of future commercial development would not result in odorous emissions that would adversely affect a substantial number of people during construction or operation. Impacts would be less than significant.

Mitigation Measure(s)

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts associated with the program-level component would be less than significant. In addition, as indicated in Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR, impacts associated with the project-level component would be less than significant. Therefore, impacts for the overall project would be less than significant.

3.3 Biological Resources

3.3.1 Overview

This section describes the existing biological resource conditions and applicable laws, regulations, and policies associated with biological resources, as well as an analysis of the potential effects resulting from implementation of the proposed project. Information contained in this section is summarized from the Biological Technical Report, prepared by HDR dated August 2020 (Appendix E).

3.3.2 Existing Conditions

The study area (the project site and a 50-foot buffer along the northern perimeter of the Bank Site) receives an average of 10.3 inches of precipitation annually (U.S. Climate Data 2020). Within the berms that surround Pond 20 the average elevation is approximately 9.8 feet (3 meters) above mean lower low water (MLLW). Shallow basins and depressions occur primarily around the southern and western perimeters of the pond, and the elevation rises gently toward the north and west. Parcel A lies west of the Bank Parcel outside of the bermed area, and ranges in elevation from the low-lying Otay River tributary along its eastern edge, to a low (6-foot to 9-foot high) hill in the west/center. Parcels B and C, also outside the berm, are generally higher elevation than the Bank Site and are flat with no appreciable slope. Parcel B lies to the south of the Bank Parcel and along Palm Avenue. Parcel C lies east of the Bank Parcel outside of the bermed area, and east of Nestor Creek.

Soils mapped in the study area include Grangeville fine sandy loam, Huerhuero-Urban land complex, and Huerhuero loam (U.S. Department of Agriculture, Natural Resources Conservation Service 2011). However, the Great Ecology wetland delineation found soils ranging from sand to clays and evidence of fill placement, including a relatively random distribution of soil types across the study area and down the soil profile (Appendix C). The berms are comprised of highly compacted clay, and the presence of shell hash on the surface indicates that the berm is comprised of marine dredge material. Soils along Nestor Creek and Otay River Tributary are characteristic of coastal wetland with a high organic material content and were found to exhibit several hydric soil indicators.

Vegetation Communities and Sensitive Natural Communities

Vegetation communities are assemblages of plant species that usually coexist in the same area. Plant communities were classified consistent with the California Vegetation Classification and Mapping Program to the extent practical. This classification system is a quantitative floristic method accepted in California as part of the National Vegetation Classification System. Biological surveys were conducted by assessing boundaries of plant communities and other mapping units, analyzing representative geo-referenced photographs, and estimating vegetation composition and cover as necessary to classify the vegetation by dominant and co-dominant species in the shrub and herbaceous layers. The project site supports 18 distinct vegetation communities as described below and depicted on Figure 3.3-1.

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Figure 3.3-1. Vegetation Communities



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Bromus sp. Semi-Natural Herbaceous Stand – Annual Brome Grasslands, Disturbed

Nonnative grasslands occur on Parcels A, B, and C with somewhat differing compositions. On Parcel A, ripgut brome (*Bromus diandrus*), red brome (*B. madritensis*), and foxtail barley (*Hordeum murinum*) are the dominant species, with horehound and crown daisy also prominent. Parcel A is weeded on an irregular basis and is less intensively maintained than the other two parcels. Ground disturbance occurred sometime in the past, and the low hill in the west/center appears to be comprised at least partially of fill material. Parcels B and C, on the other hand, appear to be regularly mowed to the point where the dominant species of grass present could not be determined. Other species present include Australian saltbush (*Atriplex semibaccata*), filaree (*Erodium sp.*), Russian thistle (*Salsola tragus*), and crown daisy.

Carpobrotus chilensis Semi-Natural Herbaceous Stand – Ice Plant Mats

Sea fig (*Carpobrotus chilensis*) occurs in two patches, one on Parcel B and one on the eastern edge of the Bank Parcel on the eastern slope of the berm. Aside from a Canary Island palm (*Phoenix canariensis*) in the middle of the Parcel B patch, no other plant species occur within this community.

Distichlis spicata Herbaceous Alliance – Salt Grass Flats

The only native grassland alliance within the study area occurs on Parcel C, where saltgrass (*Distichlis spicata*) is the dominant species. Russian thistle, filaree, and Australian saltbush also occur within this community.

Glebionis coronaria Semi-Natural Herbaceous Stand

This vegetation community occurs on Parcels A and C. The nonnative, invasive weed crown daisy is the dominant species in this community. Russian thistle, wild radish (*Raphanus sativus*), and brome species are also prominent.

Hirschfeldia incana Semi-Natural Herbaceous Stand – Upland Mustards

This vegetation community occurs in the northern portion of the Bank Parcel and includes vegetation more typical of coastal upland habitats; however, it is lacking diversity and is dominated by nonnative species. There is a slight rise in elevation at this location that causes an abrupt change in the vegetation community. There is a well-defined line of mustard that follows this minor change in elevation and coincides with an apparent change in substrate, and it was the only polygon that has a relatively high density of Santa Barbara milkvetch (*Astragalus trichopodus*).

Melilotus sp. Semi-Natural Herbaceous Stand – Sweetclover Fields

This vegetation community is located within a narrow band just north of the Roadway Vegetation polygon of the Bank Parcel. In addition to sweetclover (*Melilotus sp.*), the ice plant present at this location is moderate and dense enough to be considered part of the vegetation classification at the association level. This area is unique in that it is the only portion of the property dominated by sweetclover, a nitrogen-fixing species that, although nonnative, can improve soil chemistry.

Mesembryanthemum Semi-Natural Herbaceous Stand – Ice Plant Mats

This vegetation community is by far the most prevalent community within the study area as depicted on Figure 3.3-1. Plant densities vary greatly across the polygons identified as Ice Plant Mats. Some areas were nearly devoid of vegetation while others were dense monoculture stands of ice plant, in many cases multiple species of ice plant, but primarily slenderleaf ice plant (*Mesembryanthemum nodiflorum*) and crystalline ice plant (*M. crystallinum*).

Salicornia subterminalis Herbaceous Alliance – Pickleweed Mats

Pickleweed mat occurs primarily along Nestor Creek and the Otay River Tributary. This community also extends landward from the tributary into Parcel A. Portions of this estuarine habitat occur within perennial open water/waterways. Other species that occur in these waterways are California cord grass (*Spartina foliosa*), alkali heath (*Frankenia salina*), and California bulrush (*Schoenoplectus californicus*). This habitat is tidally inundated and is the only coastal marsh habitat within the study area.

Salsola tragus Semi-Natural Herbaceous Stand – Russian Thistle Fields

Located primarily within Parcel C, this community dominated by Russian thistle with filaree, saltgrass and brome grass. The parcel is regularly mowed for weed control.

Baccharis sarothroides Shrubland – Broom Scrub

A small area near the eastern edge of the Bank Parcel supports a dense stand of upland vegetation dominated by desertbroom baccharis. This sliver of vegetation appears relatively intact as the shrubs are mature, and there are few nonnatives within the stand itself.

Cylindropuntia prolifera Shrubland – Coastal Cholla Patches

A patch of coastal cholla (*Opuntia prolifera*) was encountered on slightly elevated ground in the northern portion of the Bank Parcel. While this species was encountered elsewhere in the study area, it was primarily as individuals; this stand was mapped separately given the density and the distinctiveness of the coastal cholla.

Isocoma menziesii Shrubland – Menzie's Goldenbush Scrub

There are two assemblages recognized in this vegetation community, both occur on the Bank Parcel. The larger of the two, *Isocoma menziesii-Opuntia prolifera* Association, includes dense stands of Menzie's goldenbush (*Isocoma menziesii*) and/or coastal cholla. In the herbaceous layer, ice plant and filaree are the dominant species in the shrub interstices. This community appears to experience occasional flooding, as evidenced by a relatively high percentage of standing dead shrubs. A portion of this vegetation community contains desertbroom baccharis as a co-dominant species.

Opuntia littoralis Shrubland Alliance – Coast Prickly Pear Scrub

This vegetation community occurs on the western bank of the eastern berm between the Bank Site and Parcel C. Coast prickly pear (*Opuntia littoralis*) occurs in a large dense patch. No other species occur in this patch.

Salix lasiolepis Shrubland – Arroyo Willow Thickets

Located in the far southeastern portion the Otay River Tributary, this vegetation community is a mix of nonnative trees and shrubs supported by urban runoff. A large stand of Canada horseweed (*Conyza canadensis*) occurs within this vegetation community.

Suaeda taxifolia Shrubland – Seablite Scrub

Seablite scrub occurs inside the berm of the Bank Parcel and along the banks of the Otay River Tributary in Parcel A. The community is highly disturbed within the study area and varies in plant density.

Berm/Road Vegetation

The primary vegetation along old road features and berms is mixed nonnatives. The western berm is nearly barren but contains patches of ice plant. An apparent old road or abandoned pier spur that was partially incorporated into the saltworks facilities crosses the site and is unvegetated in the middle with patches of nonnative and native vegetation encroaching. The eastern berm is mostly dense nonnative vegetation. The southern berm has mixed vegetation, including a patch of nonnative sea lavender (*Limonium* sp.). Riprap forms part of the substrate.

Salt Pan – Unvegetated

This cover type is completely unvegetated and occurs within the interior of the berms in the Bank Parcel. Salt crust varies in depth and in some places pooling water was observed sitting on top of the salt pan.

Open Water

Two streams flank the exterior of the Bank Site. A tributary of the Otay River runs along the west edge outside the berm and is part of the Bank Parcel but is not part of the Bank Site. Nestor Creek runs along the east edge outside the berm between the Bank Site and Parcel C. Both streams receive freshwater or stormwater inputs and flow into the Otay River to the north of the property. Both streams are subject to tidal flow and support shallow subtidal habitat. Based on the historic aerial photography available on Google Earth, both channels appear to exhibit an unvegetated soft bottom.

Sensitive Natural Communities

A sensitive natural community is one that has a state rarity rank of S1, S2, or S3, as determined by the NatureServe Heritage Program Status Ranking system (NatureServe 2020) or is identified subject to local, state, or federal regulations (such as oak woodland alliance and communities meeting ACOE's three-parameter wetland criteria). Definitions of the state ranks are as follows:

- **S1:** Critically imperiled and at a very high risk of extinction or elimination due to extreme rarity, very steep declines, or other factors.
- **S2:** Imperiled and at high risk of extinction or elimination due to a very restricted range, very few populations or occurrences, steep declines, or other factors.
- **S3:** Vulnerable and at moderate risk of extinction or elimination due to a restricted range, relatively few populations or occurrences, recent and widespread declines, or other factors.

No sensitive natural communities that are considered special status (state rarity rank of S1, S2, or S3) were found within the project site. However, several habitats within the project site have potential to support special status species or may be regulated as WOUS, WOS, CCC wetland, or CDFW streambed and are discussed in greater detail below. However, San Diego Bay and all estuarine habitat below the mean high tide are mapped as essential fish habitat (EFH) for Pacific groundfish (includes more than 82 species) and coastal pelagic fisheries (includes 4 finfish [Pacific sardine, northern anchovy, jack mackerel, Pacific mackerel], market squid, and krill). EFH within the study area is limited to Otay River Tributary and Nestor Creek at elevations below 4.99 feet MLLW. Both channels support shallow, soft bottom subtidal habitat at these elevations.

There is a total of approximately 0.2 acre of subtidal habitat within the study area. The study area supports only a very small amount of EFH, is located at the inland extent of EFH and therefore, is not likely to play a critical role in sustaining near-shore fish populations.

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 (FESA) and the California Endangered Species Act (CESA), as well as any animal species listed as a species of special concern (SSC) or fully protected by the state, and plants listed on the California Native Plant Society's (CNPS) Rare Plant Ranking System as rare (California Rare Plant Rank [CRPR] Lists 1-3). Sensitive species also include species listed by local or regional jurisdictions.

Special Status Plant Species

Based on a literature search, a total of 46 special status vascular plant species, one special status moss, and one special status liverwort were evaluated for potential to occur within the study area. Details for all special status plant species including habitat, life form, blooming period, and potential to occur within the study area are provided in Appendix E of this EIR.

Much of the study area has little potential to support special status plant species due to the history of disturbance on the project site and the high salinity of the soils. Most of the low-lying areas in the southern and western portions of the Bank Parcel are dominated by a near monoculture of ice plant. Parcels B and C are dominated primarily by nonnative grasses and weedy upland species and are subject to regular mowing and possible disking for weed control. Some upland portions of the Bank Parcel have been colonized by native Maritime Succulent Scrub plant species, multiple stands of Santa Barbara milkvetch, and California suncup (*Camissonia bistorta*), otherwise the site is primarily vegetated by nonnative species.

Nine special status plant species have potential to occur within the study area based on the presence of suitable habitat; however, the habitat is marginal due to the history of disturbance and use as a salt pond. All nine species are annual or perennial species with potential to disperse from nearby areas. The species and the associated vegetation communities are listed in Table 3.3-1.



Table 3.3-1. Special Status Plants with Potential to Occur in the Study Area

Species	Status (Federal/State/CRPR)	Associated Vegetation Community
Nuttall's acmispon (<i>Acmispon prostratus</i>)	—/—/1B.1	Goldenbush Scrub; Broom Scrub
Aphanisma (<i>Aphanisma blitoides</i>)	—/—/1B.2	Goldenbush Scrub; Broom Scrub
Pacific saltbush (<i>Atriplex pacifica</i>)	—/—/1B.2	Goldenbush Scrub; Broom Scrub; Salt Pan
Lewis's evening primrose (<i>Camissoniopsis lewisii</i>)	—/—/3	Goldenbush Scrub; Broom Scrub; Annual Brome Grasslands
Salt marsh bird's-beak (<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>)	FE/SE/1B.2	Pickleweed Mats; Seablite Scrub
Beach goldenaster (<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>)	—/—/1B.1	Goldenbush Scrub; Broom Scrub
Coulter's goldfields (<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>)	—/—/1B.1	Pickleweed Mat; Seablite Scrub; Salt Pan; open areas of Ice Plant Mat
Brand's star phacelia (<i>Phacelia stellaris</i>)	FC/--/1B.1	Goldenbush Scrub; Broom Scrub
Estuary seablite (<i>Suada esteroa</i>)	—/—/1B.2	Pickleweed Mats; Seablite Scrub

Notes:

USFWS: FE=Federally Listed Endangered

CDFW: SE=State Listed Endangered

CRPR: 1B.1=Rare, Threatened, or Endangered in California and Elsewhere, Seriously threatened; 1B.2= Rare, Threatened, or Endangered in California and Elsewhere, Moderately threatened; 3=Need more information

CDFW=California Department of Fish and Wildlife; CRPR=California Rare Plant Ranking; FC=Federal candidate for listing; USFWS=United States Fish and Wildlife Service

The other 37 special status vascular plants species, 1 special status moss, and 1 special status liverwort identified from the literature search were considered not expected to occur due to lack of suitable habitat or substrate or are perennial shrubs not detected during rare plant surveys (see species tables appended to Appendix E of this EIR).

Special Status Wildlife Species

The literature search identified a total of 36 special status wildlife species occurrences within 1 mile of the study area. This includes 1 invertebrate, 1 fish, 18 birds, 6 reptiles, and 10 mammals. The species and their potential to occur within the study area are provided in Appendix E of this EIR.

During field surveys, several special status wildlife species were observed. The species that were observed or have potential to occur are included in Table 3.3-2 below. A full list of all species observed can be found in Appendix E.

Table 3.3-2. Special Status Wildlife Species Observed or Potential to Occur

Species	Status (Federal/State)	Description	Potential to Occur
Birds			
Burrowing owl (<i>Athene cunicularia</i>)	--/SSC	Nesting habitat includes open areas with mammal burrows, including rolling hills, grasslands, fallow fields, sparsely vegetated desert scrub, vacant lots and human disturbed lands. Soils must be friable for burrows.	Known to occur on the berms within the Bank Parcel. Suitable nesting habitat is present on the pond berms and in areas of grassland (or other herbaceous annuals) at the site. Most of the site provides suitable habitat for foraging.
Short-eared owl (<i>Asio flammeus</i>)	--/SSC	Open areas with few trees, such as grasslands, prairies, dunes, meadows, irrigated lands, saline and fresh emergent wetlands. Breeds in coastal areas in Del Norte and Humboldt Counties, San Francisco Bay Delta, northeastern Modoc plateau, east side of Sierra Nevada from Lake Tahoe south to Inyo County, and San Joaquin Valley. Uncommon winter migrant in Southern California, and widespread during winter in Central Valley and coastline.	Low potential to occur as winter migrant only.
Brant (<i>Branta bernicla</i>)	--/SSC	Breeding habitat includes the edges of salt marshes in the low Arctic Region. Migratory habitats include shallow marine lakes. Winter range includes intertidal mudflats.	High potential to forage in the Otay River Tributary and Nestor Creek (which are associated with Parcels A and C, berm breach site, and the Bank Parcel) during winter.
Western snowy plover (<i>Charadrius alexandrinus nivosus</i>)	FT/SSC	Coastal populations nest on dune-backed beaches, sand spits, beaches at creeks and river mouths, and salt pans at lagoons and estuaries. Inland populations nest along barren to sparsely vegetated flats and along shores of alkaline and saline lakes, reservoirs, ponds, braided river channels, agricultural wastewater ponds, and salt evaporation ponds. Inland nesting areas occur at the Salton Sea, Mono Lake, and at isolated sites on the shores of alkali lakes in northeastern California, in the Central Valley, and southeastern deserts.	Eight individuals observed nesting within Pond 20 during 2016-2017 bay-wide avian surveys. Low potential for nesting and foraging in openings of iceplant mats and on bare berms.
Black tern (<i>Chlidonias niger</i>)	--/SSC	Freshwater marsh with emergent vegetation; in the Central Valley primarily breed and forage in rice fields and other flooded agricultural fields with weeds and other residual aquatic vegetation.	High potential to forage in Otay River Tributary and Nestor Creek, which are associated with Parcels A and C, berm breach site, and the Bank Parcel.



Table 3.3-2. Special Status Wildlife Species Observed or Potential to Occur

Species	Status (Federal/State)	Description	Potential to Occur
Northern harrier (<i>Circus cyaneus</i>)	—/SSC	Nest on the ground in patches of dense, tall vegetation in undisturbed areas. Breed and forage in variety of open habitats such as marshes, wet meadows, weedy borders of lakes, rivers and streams, grasslands, pastures, croplands, sagebrush flats and desert sinks.	Known to occur in study area. Observed foraging within the study area during 2016-2017 bay-wide avian surveys. Suitable forage and nesting habitat present in the upland portions of the site.
Western gull-billed tern (<i>Gelochelidon nilotica vanrossemi</i>)	USFWS Birds of Conservation Concern/SSC	Nests on protected spits, berms, and islands composed of sand or other small material. Forages primarily in freshwater ponds and flooded agricultural fields. Forages for small fish, crayfish, lizards, butterflies, beetles, crickets, weevils, and occasionally the young chicks of other shorebirds.	High potential for nesting colony to occur. Potential to forage in Otay River Tributary and Nestor Creek, which are associated with Parcels A and C, berm breach site, and the Bank Parcel.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	—/SSC	Inhabits open country with short vegetation, pastures, old orchards, riparian areas, and open woodlands. Highest density occurs in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. Occurs only rarely in heavily urbanized areas, but often found in open cropland. Breed in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground	Known to occur in the study area. One individual observed within the study area during 2016-2017 bay-wide avian surveys.
Belding's savannah sparrow (<i>Passerculus sandwichensis beldingi</i>)	—/SE	Inhabits coastal salt marshes year-round in Southern California. Associated with dense pickleweed, particularly <i>Salicornia virginica</i> , for nesting.	Known to occur, observed during surveys. Limited suitable habitat occurs within the waterways (Otay River tributary and Nestor Creek) on the eastern and western edges of the property for nesting and foraging.
Large-billed savannah sparrow (<i>Passerculus sandwichensis rostratus</i>)	—/SSC	Breeding habitat is specialized and is limited to open, low saltmarsh vegetation, including pickleweed, and does not typically breed in California. Species will winter along California shoreline.	High potential to occur during winter due to presence of suitable habitat in the Otay River Tributary and Nestor Creek.

Table 3.3-2. Special Status Wildlife Species Observed or Potential to Occur

Species	Status (Federal/State)	Description	Potential to Occur
Ridgway's rail (light-footed) (<i>Rallus longirostris levipes</i>)	FE/SE	Coastal salt marshes, lagoons, and their maritime environs from Santa Barbara County south past San Diego into Baja California. Require shallow water and mudflats for foraging, with adjacent higher vegetation for cover during high tide.	Low potential to occur for nesting and foraging in salt marsh habitats along Nestor Creek and the Otay River Tributary. Very little cordgrass present except at north terminus of the Otay River Tributary. Individual observed in Otay River north and outside of the study area during surveys for ORERP.
Black skimmer (<i>Rynchops niger</i>)	USFWS Birds of Conservation Concern/SSC	Nests on barrier beaches, shell banks, spoil islands, and salt marsh; forages over open water; roosts on sandy beaches and gravel bars.	Potential for nesting colony to occur. Known to roost within the study area. Observed during 2016-2017 bay-wide avian surveys. Marginal nesting and roosting habitat occur in Nestor Creek and Otay River Tributary.
California least tern (<i>Sternula antillarum browni</i>)	FE/SE	Typically nest on open beaches free of vegetation and forage for shrimp and other invertebrates near ocean waters and in shallow estuaries and lagoons.	Low potential for foraging along the Otay River Tributary and Nestor Creek due to small size and shallow conditions. Low potential for nesting in the sparsely vegetated areas on berms and basin bottom within the Bank Site. Terns of various species were observed foraging in the Otay River just to the north of the study area during the 2016-2017 bay-wide avian surveys.
Reptiles			
Orange-throated whiptail (<i>Aspidoscelis hyperythra</i>)	—/SSC	Found from sea level to about 2,000 feet in elevation in semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, coastal sage scrub, chaparral, grassland, juniper and oak woodland.	Moderate potential to occur. Presence of sandy soils and <i>Isocoma</i> scrub habitat.
Mammals			
Western red bat (<i>Lasiurus blossevillii</i>)	—/SSC	Roosts primarily in trees, less often in shrubs. Roost sites often are in edge habitats adjacent to streams, fields, or urban areas. Feeds over a wide variety of habitats including grasslands, shrublands, open woodlands and forests, and croplands.	Moderate potential to use canary island palms on Parcel B as roosting habitat and forage over the study area.



Table 3.3-2. Special Status Wildlife Species Observed or Potential to Occur

Species	Status (Federal/State)	Description	Potential to Occur
San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>)	—/SSC	Herbaceous and desert-shrub areas and open, early stages of forest and chaparral habitats. Ranges in all of California except the high elevation Sierra Nevada Mountains. Generally occurs in most habitats.	Known to occur. Observed in the upland scrub areas of the site.

Source: CDFW 2018; Dudek 2018; Nafis 2019; Shuford and Gardali 2008

Notes:

CDFW=California Department of Fish and Wildlife; FE=Federally Listed Endangered; FT=Federally Listed Threatened; ORERP=Otay River Estuary Restoration Project; SSC=CDFW Species of Special Concern; SE=State Listed Endangered; USFWS=United States Fish and Wildlife Service

FEDERALLY AND STATE LISTED SPECIES

Four federally and state listed wildlife species are known to occur or have potential to occur within and adjacent to the study area, including Belding’s savannah sparrow (*Passerculus sandwichensis beldingi*), western snowy plover (*Charadrius alexandrinus nivosus*), California least tern (*Sternula antillarum browni*), and Ridgway’s rail (light-footed) (*Rallus obsoletus levipes*). Habitat assessments were completed for each of these species and are summarized below. USFWS-designated critical habitat does not occur for any listed species within the study area. Details of the habitat assessments can be found in Appendix E. Table 3.3-3 summarizes the suitable habitat for the four federally and state listed species within the study area.

Belding’s Savannah Sparrow. This species nests and forages in salt marshes with dense stands of pickleweed and saltgrass. Belding’s savannah sparrows are known to utilize the site adjacent to the project site, including the high-quality nesting and foraging habitat in Nestor Creek and the Otay River Tributary where constituent elements of suitable habitat are present (open water and pickleweed marsh). The remainder of the site represents low-quality roosting potential due to the general lack of suitable habitat and past disturbance patterns.

California Least Tern. California least terns typically nest on open beaches free of vegetation and forage primarily for small schooling fish and occasionally for shrimp and other invertebrates (USFWS 2017). No nesting was observed in the study area during the past bay-wide avian surveys. Although California least tern typically nests on open beaches, it has been documented using opening salt evaporation pond berms, salt pans, and open areas in sparsely vegetated areas such as the openings in the ice plant mat community mapped within the study area (Burger and Gochfeld 1990; Powell and Collier 2000). Therefore, this habitat has been mapped as potential nesting habitat, albeit of low quality. Salt pan was not included as suitable nesting habitat due to the permanent thick layer of salt crust present in the salt pan on site. The Nestor Creek and Otay River Tributary channels on either side of the Pond 20 berms offer low-quality foraging habitat, with only very narrow and shallow open water in which terns can dive for schooling fish to prey on.

Ridgway’s Rail (Light-footed). The Ridgway’s rail (light-footed) is known to use coastal salt marshes, lagoons, and other maritime environments, nesting in the lower littoral zone of coastal salt marshes where dense stands of cordgrass are present and foraging in mudflats. Potential habitat for Ridgway’s rail (light-footed) occurs along the Otay River Tributary and Nestor Creek. These waterways support

the constituent elements needed for nesting and foraging (open water and cordgrass). Foraging potential within these waterways is likely higher than nesting potential since cordgrass, the species' preferred nesting habitat, only occurs at the northern end of the Otay River Tributary (berm breach area).

Western Snowy Plover. The Pacific coast population of the western snowy plover breeds primarily above the high tide line on coastal beaches, sand spits, dune-backed beaches, sparsely vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. Less common nesting habitats include bluff-backed beaches, dredged material disposal sites, salt pond levees, dry salt ponds, and river bars (USFWS 2007). Nesting quality at the project site is negatively affected by the berms which restrict access for chicks to open water feeding habitat. Low-quality nesting, roosting, and foraging habitat for the western snowy plover is present on the bare berms and roadways and in openings within the ice plant mat community within the Bank Parcel. Although salt pan can provide suitable nesting and foraging habitat for western snowy plover, the salt pan on site exhibits a thick permanent crust of salt precluding invertebrate prey and suitable nesting substrates. Additional foraging habitat is available in Nestor Creek and Otay River Tributary when especially low tides expose mud flats.

Table 3.3-3. Suitable Habitat for Federally and State Listed Avian Species within the Study Area

Species	Habitat Function and Suitability	Bank Parcel (acre)	Breach Site (acre)	Parcel A (acre)	Parcel B (acre)	Parcel C (acre)	Total Acres
Belding's Savannah Sparrow	Nesting - High	1.53	0.16	0.34	—	0.18	2.21
	Foraging - High	1.53	0.16	0.34	—	0.18	2.21
	Roosting - Low	68.92	0.00	2.06	0.72	7.76	79.46
California Least Tern	Nesting - Low	14.31	0.12	0.00	0.00	0.00	14.43
	Foraging - Low	0.15	0.04	—	—	0.02	0.21
	Roosting - Low	14.31	0.12	0.00	0.00	0.00	14.43
Ridgway's Rail (light-footed)	Nesting - Low	1.57	0.16	0.34	—	0.20	2.27
	Foraging - Low	1.57	0.16	0.34	—	0.20	2.27
Western Snowy Plover	Nesting Low	14.31	0.12	0.00	0.00	0.00	14.43
	Foraging - Low	14.46	0.16	0.00	0.00	0.02	14.64
	Roosting - Low	14.31	0.12	0.00	0.00	0.00	14.43



OTHER SPECIAL STATUS SPECIES

A habitat assessment was also conducted for burrowing owl, a CDFW SSC. Moderately low-quality nesting habitat for burrowing owls exists on the berms around Pond 20 and in the nonnative grassland areas (Table 3.3-4), where the potential for nesting is degraded by past disturbances and the overabundance of nonnative vegetation. Burrowing owls have been observed in the northern portion of the study area, including a nesting observation during the 2016-2017 bay-wide avian surveys. Most of the study area (except for salt pan, pickleweed mats, *Carpobrotus chilensis*-dominated iceplant mats, open water, arroyo willow thickets, and urban/developed cover), represents low-quality foraging opportunities where small mammal activity occurs. Burrowing owls thrive in open areas with low vegetation and scrubland with adjacent areas of marshland containing plant species, such as pickleweed.

Table 3.3-4. Suitable Habitat for Burrowing Owl within the Study Area

Habitat Function and Suitability	Bank Parcel (acre)	Breach Site (acre)	Parcel A (acre)	Parcel B (acre)	Parcel C (acre)	Total Acres
Nesting - Low/Moderately Low	13.05	0.12	1.26	0.72	7.96	23.11
Foraging - Low	66.95	0.00	2.01	0.72	7.76	77.44

Jurisdictional Wetland Resources

All jurisdictional resources are associated with either the Otay River Tributary located between the western edge of the Bank Parcel and Parcel A, along Nestor Creek located between the eastern edge of the Bank Parcel and Parcel C, and within Parcel A. Both Nestor Creek and the Otay River Tributary receive freshwater and stormwater inputs, primarily at their southern/upstream reaches. Both features are tidally influenced at their northern/downstream reaches due to the connection with the Otay River. The following descriptions of delineated areas are adapted from the Great Ecology delineation reports, HDR Wetland Delineation Report, and the Tierra Data Inc. Biological Technical Report (Attachments C, D, B, and A of the Biological Resources Technical Report [Appendix E of this EIR]). A discussion of federal, state, and local jurisdictional resources is provided below.

Bank Site. The interior of Pond 20 within the study area is surrounded by earthen berms and is comprised of disturbed upland salt flats and isolated hypersaline pools perched on fill material. The interior of Pond 20 is isolated from surface tidal flows and only receives surface water inputs via precipitation and stormwater flows from Palm Avenue, located along the southern border. The average elevation of the interior of Pond 20 is 9.05 feet MLLW, and ranges from 4.43 to 12.4 feet MLLW. The berm heights surrounding the Pond are between 13.4 and 14.4 feet MLLW and enclose the entirety of the interior of Pond 20. Intermittently ponded water features totaling 8.9 acres were identified within Pond 20, but do not meet the ACOE criteria for WOUS, exhibit streambed or provide typical wetland functions. In addition, these features exhibit an impermeable salt layer (aquitar) that prevents precipitation from infiltrating into the soil. Therefore, these features are not expected to be regulated by ACOE, RWQCB, CDFW, or CCC.

Otay River Tributary and Parcel A. The Otay River Tributary is comprised of channelized flows where the berm surrounding Pond 20 form one of the channel banks. Located outside the western berm of

Pond 20, the tributary supports a mix of fresh water from stormdrain outlets and tidal waters from the Otay River near its entrance to San Diego Bay. In addition, the Otay River Tributary receives freshwater flows from a stormdrain that outlets onto Parcel A from under 13th street. The stormdrain channel transitions to a swale prior to reaching the tributary bank. The Otay River Tributary terminates in the southwest corner of the exterior of Pond 20 and does not flow into or through the interior of Pond 20. The average elevation of the Otay River Tributary Area is 5.4 feet MLLW, and ranges from 4.4 to 6.4 feet MLLW at the toe of the berm. In general, the Otay River Tributary supports an open water channel with pickleweed-dominated salt marsh on the banks and woolly seabligh-dominated shrubland on active flood terraces. A small section at the southern end of the Otay River tributary receives stormwater input and supports *Salix lasiolepis* shrubland.

Nestor Creek. Nestor Creek is comprised of channelized flows where the berm surrounding Pond 20 form one of the channel banks. Nestor Creek, located outside the eastern Pond 20 berm, is an urban freshwater-to-brackish channel that flows north past Pond 20 into the Otay River. Nestor Creek does not flow into or through the interior of Pond 20. The average elevation of the Nestor Creek Area is 6.2 feet MLLW, and ranges from 4.4 to 11.4 feet MLLW at the top of the berm.

Waters of the United States

Wetland and non-wetland WOUS subject to Section 404 of the CWA occur within the study area and are primarily associated with two drainage features: (1) the Otay River Tributary, which is located on Parcel A and along the outer perimeter of the Bank Parcel; and (2) Nestor Creek, which is associated with Parcel C and along the outer perimeter of the Bank Parcel. Figure 3.3-2 depicts the location of WOUS and Table 3.3-5 summarizes the acreage of ACOE WOUS within the study area.

Table 3.3-5. Summary of United States Army Corps of Engineers Waters of the United States within the Study Area

Location	Wetland WOUS (acres)	Non-wetland WOUS (acres)	Total WOUS (acres)
Breach Site	0.16	0.03	0.19
Bank Parcel (not including the Bank Site)	1.19	0.44	1.64
Bank Site	0.00	0.00	0.00
Parcel A	0.35	0.22	0.57
Parcel B	—	—	—
Parcel C	0.08	0.03	0.11
Total	1.79	0.71	2.50

Notes:
 WOUS=Waters of the United States

Waters Regulated by the Regional Water Quality Control Board

For this project, WOS, as defined by the State Water Resources Control Board's (SWRCB) 2019 Wetland and Riparian Area Protection Policy, are equivalent to WOUS. In total, the study area



includes 2.50 acres of WOUS/WOS regulated by RWQCB, of which 1.79 acres consist of wetland. Figure 3.3-2 depicts the location of WOUS/WOS and Table 3.3-5 summarizes the acreage of WOUS/WOS within the study area.

California Coastal Commission Jurisdictional Areas

The study area is entirely within the coastal zone, which is managed by the CCC. The criteria used to define CCC wetlands requires that only one wetland criterion be met (see Appendix B of Appendix E of this EIR). Therefore, all ACOE wetland and non-wetland waters are subject to CCC jurisdiction as well as any hydrophytic vegetation associated with active floodplain that occurs within the study area. In total, the study area includes 3.05 acres of CCC-wetland as summarized in Table 3.3-6 and as depicted on Figure 3.3-3.

Table 3.3-6. California Coastal Commission Wetlands within the Study Area

Location	Total CCC Wetlands ^a (acres)
Breach Site	0.19
Bank Parcel (not including Bank Site)	1.67
Bank Site	0.00
Parcel A	1.08
Parcel B	0.00
Parcel C	0.11
Total	3.05

Notes:

^a CCC Wetlands require that only one wetland criterion be met
 CCC=California Coastal Commission

California Department of Fish and Wildlife Streambed

For this project, potential CDFW-regulated streambed is equivalent to CCC-regulated wetland. In total, the study area includes 3.05 acres of potential CDFW-regulated streambed of which 2.47 acres is vegetated with *Suaeda taxifolia* shrubland, *Salicornia subterminalis* herbaceous alliance or *Salix lasiolepis* shrubland. Figure 3.3-3 and Table 3.3-7 provides a summary of potential CDFW regulated streambed occurring within the study area.

Table 3.3-7. Potential California Department of Fish and Wildlife Jurisdictional Areas within the Study Area

Location	Potential CDFW Riparian (acres)	Potential CDFW Unvegetated Streambed (acres)	Potential Total CDFW Jurisdiction (acres)
Breach Site	0.15	0.04	0.19
Bank Parcel (not including Bank Site)	1.38	0.29	1.67
Bank Site	0.00	0.00	0.00
Parcel A	0.85	0.23	1.08
Parcel B	0.00	0.00	0.00
Parcel C	0.09	0.02	0.11
Total	2.47	0.58	3.05

Notes:
 CDFW=California Department of Fish and Wildlife

Figure 3.3-2. United States Army Corps of Engineers Jurisdictional Areas



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Figure 3.3-3. California Department of Fish and Wildlife and California Coastal Commission Jurisdictional Areas



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Wildlife Corridors and Habitat Linkages

San Diego Bay is an important component of the Pacific Flyway used by millions of birds traveling between northern breeding grounds and southern wintering sites. It also supports over-wintering birds that depend on its resources for food, shelter, resting, and staging before migration. The San Diego Bay also serves as the northern range of some tropical species, including several that breed and nest locally.

The study area provides roosting, foraging, and nesting habitat for many of the resident and migratory birds which utilize the San Diego Bay and its surroundings. Several species were observed nesting at the project site during avian surveys, including black-necked stilts (*Himantopus mexicanus mexicanus*), western snowy plovers, burrowing owls (*Athene cunicularia*), and killdeer (*Charadrius vociferus vociferus*). The study area is proximal to San Diego Bay, including the saltworks ponds which are part of the San Diego Bay (located to the north of the study area), and the Pacific Ocean. The pond's proximity to key habitats provides foraging opportunities for species which may nest or roost in the study area. Additional upland habitats exist to the north and east of the project site, and the Otay River basin provides a key linkage to the inland area of southern San Diego. Tijuana Estuary lies just 1.9 miles (3 kilometers) to the south.

Based on results of previous surveys, restored areas and brine flats within the saltworks and other wetlands adjacent to the project site provide important migratory stopover value and spring/summer nesting and roosting habitat for birds. Significant numbers of seabirds and shorebirds establish nests on the saltworks levees north of the project site each spring and summer. These include California least terns and western snowy plovers. Large multispecies breeding colonies include cormorants, terns, and black skimmers (*Rynchops niger*). American avocet (*Recurvirostra americana*) and black-necked stilt nest throughout the interior of the saltworks, and smaller numbers of nesting mallards, gadwall (*Mareca strepera*), and killdeer are scattered throughout. Nesting songbirds include horned lark (*Eremophila alpestris*) and Belding's savannah sparrow.

3.3.3 Applicable Laws, Regulations, and Policies

Federal

National Environmental Policy Act

NEPA of 1969 (42 U.S. Code [USC] Section 4321-4347) is a federal statute requiring the identification and analysis of potential environmental impacts associated with proposed federal actions. The intent of NEPA is to help decision makers make well-informed decisions based on an understanding of the potential environmental consequences, and take actions to protect, restore, or enhance the environment. The process for implementing NEPA is outlined in Title 40 of the Code of Federal Regulations (CFR), Parts 1500–1508, Regulations for Implementing the Procedural Provisions of NEPA.

NEPA established the Council on Environmental Quality that was charged with the development of implementing regulations and ensuring Federal agency compliance with NEPA. The Council on Environmental Quality regulations define major Federal actions to include adoption of official policy (i.e., rules and regulations), adoption of formal plans, adoption of programs, and approval of specific projects (40 CFR 1508.18). The Council on Environmental Quality regulations mandate that all Federal agencies use a prescribed structured approach to environmental impact analysis.

Federal Endangered Species Act

FESA defines and lists species as endangered or threatened and provides regulatory protection for the listed species. FESA provides a program for conservation and recovery of threatened and endangered species. It also ensures the conservation of designated critical habitat that the USFWS has determined is required for the survival and recovery of these listed species. Section 9 of FESA prohibits the take of species listed by USFWS as threatened or endangered. Take is defined as: "...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct." In recognition that take cannot always be avoided, Section 10(a) of FESA includes provisions for take that is incidental to, but not the purpose of, otherwise lawful activities. Section 10(a)(1)(B) permits (incidental take permits [ITP]) may be issued if take is incidental and does not jeopardize the survival and recovery of the species.

Section 7(a)(2) of FESA requires that all federal agencies, including the USFWS, evaluate projects with respect to any species proposed for listing or already listed as endangered or threatened and any proposed or designated critical habitat for the species. Federal agencies must undertake programs for the conservation of endangered and threatened species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its critical habitat.

As defined in FESA, individuals, organizations, states, local governments, and other nonfederal entities are affected by the designation of critical habitat only if their actions occur on federal lands; require a federal permit, license, or other authorization; or involve federal funding.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers, or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Sections 3505, 3503.5, and 3800 of the CDFW code also prohibit the take, possession, or destruction of birds, their nests, or eggs.

Clean Water Act

UNITED STATES ARMY CORPS OF ENGINEERS

Section 404 of the CWA establishes a program for ACOE to regulate the discharge of dredge and fill material into WOUS, including wetlands. Activities regulated under this program include fills for development, water resource projects (e.g., dams and levees), infrastructure development (e.g., highways and airports), and conversion of wetlands to uplands for farming and forestry. Either an individual Section 404 permit or authorization to use an existing ACOE nationwide permit must be obtained if any portion of an activity will result in dredge or fill impacts to a river or stream that has been determined to be jurisdictional under Section 404 of the CWA. When applying for a permit, a company or organization must show that they would either avoid wetlands where practicable, minimize wetland impacts, or provide compensation for any unavoidable destruction of wetlands.

As of June 22, 2020, the term WOUS is defined in the ACOE regulations at 33 CFR Part 328.3(a) as:

(a) Jurisdictional waters. For purposes of the CWA, 33 USC 1251 et seq. and its implementing regulations, subject to the exclusions in paragraph (b) of this section, the term WOUS means:

- (1) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;

- (2) Tributaries;
- (3) Lakes and ponds, and impoundments of jurisdictional waters; and
- (4) Adjacent wetlands.

(b) Non-jurisdictional waters. The following are not WOUS:

- (1) Waters or water features that are not identified in paragraph (a)(1), (2), (3), or (4) of this section;
- (2) Groundwater, including groundwater drained through subsurface drainage systems;
- (3) Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools;
- (4) Diffuse stormwater run-off and directional sheet flow over upland;
- (5) Ditches that are not waters identified in paragraph (a)(1) or (2) of this section, and those portions of ditches constructed in waters identified in paragraph (a)(4) of this section that do not satisfy the conditions of paragraph (c)(1) of this section;
- (6) Prior converted cropland;
- (7) Artificially irrigated areas, including fields flooded for agricultural production, that would revert to upland should application of irrigation water to that area cease;
- (8) Artificial lakes and ponds, including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds, constructed or excavated in upland or in non-jurisdictional waters, so long as those artificial lakes and ponds are not impoundments of jurisdictional waters that meet the conditions of paragraph (c)(6) of this section;
- (9) Water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;
- (10) Stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater run-off;
- (11) Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention, and infiltration basins and ponds, constructed or excavated in upland or in non-jurisdictional waters; and
- (12) Waste treatment systems.

The term *ephemeral* means surface water flowing or pooling only in direct response to precipitation (e.g., rain or snow fall). The term *intermittent* means surface water flowing continuously during certain times of the year and more than in direct response to precipitation (e.g., seasonally when the groundwater table is elevated or when snowpack melts). The term *perennial* means surface water flowing continuously year-round. Per ACOE Regulatory Guidance Letter 08-02, applicants can elect to request and obtain an Approved Jurisdictional Determination, he or she can also decline to request an Approved Jurisdictional Determination, and instead obtain a ACOE individual or general permit authorization based on either a Preliminary Jurisdictional Determination, or, in appropriate circumstances (such as authorizations by non-reporting nationwide general permits), no Jurisdictional Determination whatsoever. By definition, a Preliminary Jurisdictional Determination can only be used to determine that wetlands or other water bodies that exist on a particular site “may be” jurisdictional WOUS. A Preliminary Jurisdictional Determination by definition cannot be used to determine either

that there are no wetlands or other water bodies on a site at all (i.e., that there are no aquatic resources on the site and the entire site is comprised of uplands), or that there are no jurisdictional wetlands or other water bodies on a site, or that only a portion of the wetlands or waterbodies on a site are jurisdictional. The use of a Preliminary Jurisdictional Determination may expedite the permitting process when compared to the Approved Jurisdictional Determination process which requires the Jurisdictional Determination to be coordinated with EPA.

The limits of ACOE jurisdiction in nontidal waters extends to the ordinary high water mark, which is defined at 33 CFR Part 328.3(c) as:

...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as [a] clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Per the regulatory program CWA guidance to implement the U.S. Supreme Court decision for the Rapanos and Carabell Cases (ACOE 2008a), ACOE typically does not assert jurisdiction over nontidal drainage and irrigation ditches that are excavated on dry land, drain adjacent upland areas, and do not convey relatively permanent flow.

WETLANDS

The term wetlands (a subset of WOUS) is defined in 33 CFR 328.3(b) as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions.” In 1987, ACOE published a manual to guide its field personnel in determining jurisdictional wetland boundaries followed by the Arid West Supplement in 2008 (Environmental Laboratory 1987, ACOE 2008b). The methodology set forth in the 1987 manual and 2008 supplement generally requires that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics.

TIDAL WATERS

For tidal waters, the limit of Section 404 jurisdiction extends to the high tide line, which means the line of intersection of the land with the water’s surface at the maximum height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency, but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds, such as those accompanying hurricanes or other intense storms (33 CFRs 328.3(d) and 328.4(b)). Within the study area, the mean higher high water elevation is based on the San Diego Bay tidal datum.

Rivers and Harbors Act

Pursuant to Section 10 of the Rivers and Harbors Act, ACOE regulates work or structures within, over or under navigable WOUS, including dredging or disposal of dredged materials, excavation, filling, rechannelization, drilling pilings, or any other modifications to a navigable WOUS. Pursuant to the Rivers and Harbors Act, the limits of ACOE jurisdiction in tidal waters extend to the mean high water line.

Regional Water Quality Control Board

The RWQCB regulates activities pursuant to Section 401(a)(1) of the federal CWA. Section 401 of the CWA specifies that certification from the state is required for any applicant requesting a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities that may result in any discharge into navigable waters. RWQCB typically requires compensatory mitigation to offset any loss of aquatic function caused by a project. The type and quantity of mitigation is negotiated during the permitting process.

PORTER COLOGNE ACT

RWQCB also regulates discharge of waste to WOS pursuant to California's Porter-Cologne Act, enacted in 1969, which provides the legal basis for water quality regulation within California. Under this Act, the Water Code defines WOS broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state.

RWQCB adopted a statewide definition of rules to protect wetlands and other environmentally sensitive waterways throughout the state on April 2, 2019. These rules define what RWQCB considers a wetland and include a framework for determining if a feature that meets the RWQCB wetland definition is a WOS subject to regulation. Second, the rules clarify requirements for permit applications to discharge dredged or fill material to any WOS.

The RWQCB defines an area as wetland as follows:

An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

Magnuson-Stevens Fishery Conservation Act

The Magnuson-Stevens Fishery Conservation Act designates the National Oceanic and Atmospheric Administration NMFS to work with regional Fishery Management Councils to develop Fishery Management Plans for each fishery under their jurisdiction. The Fishery Management Plans must identify and describe EFH. Federal agencies must consult with National Oceanic and Atmospheric Administration Fisheries on any action that might adversely affect EFH. EFH means those waters and substrate necessary for fish spawning, breeding, feeding, or growth to maturity (Magnuson-Stevens Act, 16 USC 1801 et seq.).

State

California Environmental Quality Act

CEQA requires state and local agencies to identify impacts on the environment that might be caused by their actions. Projects undertaken by public or private agencies must comply with this act if there is any approval given by a state agency. CEQA is a self-regulating statute; however, agencies that do not comply may face litigation from the public. CEQA is a statute that requires state agencies to provide information about environmental impacts of their actions and requires that actions be taken to avoid, minimize, or mitigate those impacts. All listed species are protected, as well as candidates and those listed by the CNPS (CRPR Lists 1, 2, and 3) (CNPS 2020) and CDFW.

California Fish and Game Code

PROTECTION FOR SPECIES LISTED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT

Sections 2050 through 2098 of the California Fish and Game Code outline the protection provided to California's rare, endangered, and threatened species. Section 2080 of the Fish and Game Code prohibits the taking of plants and animals listed under CESA. Section 86 of the California Fish and Game Code defines take as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Section 2081 established an ITP program for state listed species. In addition, the Native Plant Protection Act of 1977 (Fish and Game Code Section 1900 et seq.) gives the CDFW authority to designate state endangered, threatened, and rare plants and provides specific protection measures for designated populations.

FULLY PROTECTED SPECIES

Sections 3500 to 5500 of the California Fish and Game Code outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances such as scientific research or live capture and relocation of such species pursuant to a permit for the protection of livestock. Specific sections of the California Fish and Game Code pertinent to the project include:

- Section 3503: prohibits the taking, possession, or needless destruction of the nest or eggs of any bird;
- Section 3503.5: prohibits the taking, possession, or destruction of any bird in the order Falconiformes or Strigiformes (birds-of-prey) or the taking, possession, or destruction of the nest or eggs of any such bird; and
- Section 3513: prohibits the taking or possession of any migratory non-game bird as designated in the Migratory Bird Treaty Act.

LAKE AND STREAMBED ALTERATION PROGRAM

The State of California regulates water resources under Sections 1600-1616 of the California Fish and Game Code. Section 1602 states:

An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses and extends to the top of the bank of a stream or lake if unvegetated, or to the limit of the adjacent riparian habitat located contiguous to the watercourse if the stream or lake is vegetated. CDFW typically requires compensatory mitigation if a project results in the net loss of CDFW jurisdiction. The type and quantity of mitigation is negotiated during the permitting process.

Projects that require a Streambed Alteration Agreement may also require a permit from the ACOE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreement may overlap.

California Coastal Act

The proposed project is located within the Coastal Zone and constitutes development pursuant to CCA Section 30106. The CCC regulates development on the California coast. For the purposes of regulation, tidelands are defined as the lands lying between the lines of mean high tide and mean low tide, and wetlands are defined as “lands within the coastal zone that may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, or fens.”¹ In addition to the more traditional fresh and saltwater marshes, the California Coastal Zone also contains a number of riparian areas, most often occurring as corridors along streams and rivers.

In addition to regulating aquatic resources, the CCC regulates environmentally sensitive habitat areas (ESHA) that occur within the Coastal Zone. The CCA provides a definition of ESHA as: “Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments” (Section 30107.5).

CCC wetlands and other habitat (i.e., habitat suitable for use by endangered, threatened or rare species, ACOE and CDFW regulated waterways) that could qualify as ESHA are present within the study area as described in Section 3.3.2 and impacts to ESHA are described in Section 3.3.4. The enforceable policies of the Coastal Zone Management Act (CZMA) related to biological resources, as outlined in Chapter 3 of the CCA (PRC Div. 20), include Article 4 – Marine Environment (Sections 30230-30236), Article 5 – Land Resources (Section 30240), and Article 6 – Development (Section 30255).

After certification of the PMPA by the CCC, a non-appealable CDP pursuant to Section 30715 of the CCA would be approved by the District. For the project components on federal land, the CCC would require a federal coastal consistency analysis and certification request for review and approval by the Federal Consistency Unit of the CCC to obtain a Federal Coastal Consistency Certification. Additionally, for Parcels A, B, and C pursuant to section 30715(a)(4) of the CCA, CDPs for commercial uses not principally devoted to the sale of commercial goods utilized for water-oriented purposes are appealable to the CCC. No specific development or uses have been determined for the subject parcels at this time; therefore, it’s possible that future development of Parcels A, B, and C could involve development and/or uses that are appealable to the CCC.

Local

San Diego Unified Port District Port Master Plan

Through implementation of the PMP, the District maintains authority over tidelands and submerged lands conveyed in trust to the District by the California legislature. Any amendments to the PMP are first reviewed and adopted by the BPC and then certified by the CCC, thereby allowing the District to issue CDPs for projects within its jurisdiction. The PMP provides for protection of biological resources and states that the District would remain sensitive to the needs of, and would cooperate with, other communities and other agencies in development of the Bay and tidelands.

¹ California Code of Regulations (CCR) Section 13577 and California Coastal Act (CCA) Sections 30121, respectively

San Diego Bay Integrated Natural Resources Management Plan

The Integrated Natural Resources Management Plan (INRMP) is a long-term, collaborative strategy for managing the bay’s natural resources and is the primary means by which the U.S. Navy and District jointly plan natural resources work in San Diego Bay. The INRMP became a joint initiative with the District in recognition of the need for partnership in stewardship and compliance with environmental laws, while supporting the ability of the U.S. Navy and the District to accomplish their mission related work. Required by the Sikes Act Improvement Act of 1997 for the U.S. Department of Defense, the INRMP is the primary means by which natural resources compliance and stewardship priorities are set and funding requirements are determined. A commitment to implement priority projects, as funding permits, comes with the signatures in the front of the INRMP.

In 2002, the first INRMP for San Diego Bay was signed by the Commander, Navy Region Southwest, the Chair of the BPC, the Regional Administrator of NMFS, the Field Supervisor of USFWS, and the Regional Director of CDFW (then called the California Department of Fish and Game). The 2013 revision continues many of that plan’s objectives and strategies, while expanding coverage on water quality, sediment quality, sustainable development, and other topics. Objectives and strategies addressed in the INRMP that are relevant to the project are included in Table 3.3-8.

Table 3.3-8. Integrated Natural Resources Management Plan Objectives Relative to the Project

Topic Area	Objective
Ecosystem approach	4.1. Protect bay natural resources and their function by planning and acting at ecologically meaningful, hierarchical scales and time frames.
Mitigation and enhancement	4.2. Improve the success of mitigation and enhancement projects based on regulatory (avoidance and minimization measures), functional, and ecosystem criteria.
Unvegetated shallows	4.3.3. Conserve and enhance the attributes of vegetated shallow subtidal sites that sustain a diverse and abundant invertebrate community, fish and wildlife foraging, nursery function for numerous fishes, as well as an ecological role in detritus-based food web support.
Vegetated shallows	4.3.4. Conserve and enhance the attributes of vegetated shallow subtidal sites that sustain a diverse and abundant invertebrate community, fish and wildlife foraging, nursery function for numerous fishes, as well as an ecological role in detritus-based food web support.
Intertidal flats	4.3.5. Achieve a long-term net gain in the area, function, value, and permanence of intertidal flats, and the physical conditions that support this habitat.
Salt marsh	4.3.6. Ensure no net loss of existing structure and function of salt marsh habitat, and achieve a long-term net gain in its quantity, quality, and permanence.
Salt ponds	4.3.8. Protect and enhance the important wildlife functions of the salt ponds, with emphasis on special status birds, shorebird foraging and roosting, and sea bird nesting.



Table 3.3-8. Integrated Natural Resources Management Plan Objectives Relative to the Project

Topic Area	Objective
Upland transitions	4.3.9. Ensure no net loss of availability, structure, and function of high value adjacent uplands, and achieve a long-term net gain in their quantity, quality, and permanence.
River mouths and floodplains	4.3.10. Allow river mouths and floodplains to fulfill or at least mimic their natural ecological function as an intermittent and episodic source of sedimentation, organic matter, and freshwater input for the bay.
Invasive species	4.4.1. Minimize the harmful ecological, economic, and human health impacts of aquatic invasive species in San Diego Bay.
Invertebrates	4.4.2.2. Identify and conserve the abundance, biomass, and diversity of invertebrate functional groups that reflect health in each habitat and the ecosystem as a whole.
Fishes	4.4.3. Conserve and enhance fish population abundance and diversity, with priority to those using the bay as a nursery or refuge, and to indigenous bay species.
Birds	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 values of the bird resources of the bay.
California least tern	4.4.6.2. Contribute to the recovery of least tern numbers based on population size, distribution, and secure nesting site numbers by providing clear benefit to the species in a cost-effective manner. Manage predators of the California least tern to maximize colony success as measured by fledgling productivity and pair numbers.
Light-footed clapper rail	4.4.6.3. Protect the listed light-footed clapper rail population inhabiting San Diego Bay and seek to contribute to its recovery.
Western snowy plover	4.4.6.4. Due to a local decline in western snowy plovers, identify and correct the problem related to water quality, invertebrates, and sick or dying snowy plovers. Protect the listed western snowy plover population inhabiting San Diego Bay and seek to contribute to its recovery.
Salt marsh bird's-beak	4.4.6.5. Seek the recovery of the salt marsh bird's-beak population through habitat protection and enhancement.

3.3.4 Environmental Impacts

This section presents the methodology applied for the evaluation, the significance criteria used for considering project impacts related to biological resources, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level component includes a PMPA to incorporate Parcels A, B, and C into the PMP, which requires a land use designation to be assigned. The parcels are proposed to be assigned a commercial recreation land use designation. At this time, no construction or operational

activities are proposed on Parcels A, B, and C. The impact analysis below evaluates the reasonable scenario of commercial development on Parcels A, B, and C. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to a CDP and project approval, and any additional CEQA compliance.

Methodology

Study Area

The study area for biological resources includes the project site and a 50-foot buffer along the northern perimeter of the Bank Site.

Literature Review

As detailed in the *Biological Resources Technical Report*, prepared by HDR, the following studies were utilized and are appended to Appendix E:

- Biological Resources Survey Report, Pond 20, San Diego, California. August 2018. Prepared by Tierra Data, Inc.
- Jurisdictional Delineation Report, Wetland Mitigation Bank at Pond 20 and PMPA – Parcel A. April 2020. Prepared by HDR Engineering, Inc.
- Delineation of Jurisdictional Wetlands and Non-Wetland Waters under the CWA Section 404 for the Proposed South San Diego Bay Wetland Mitigation Bank (Pond 20). Prepared by Great Ecology December 2017
- CCC Supplemental Wetland Delineation Report for the South San Diego Bay Wetland Mitigation Bank. Prepared by Great Ecology February 2020

Additionally, the following literature and materials were reviewed in the preparation of the *Biological Resources Technical Report*.

- California Natural Diversity Database RareFind version 5.2.14 search for sensitive plant and animal species (CDFW 2020);
- USGS 7.5-minute Imperial Beach, California (USGS 1966);
- U.S. Department of Agriculture Natural Resources Conservation Service soil mapping data (U.S. Department of Agriculture Natural Resources Conservation Service 2019);
- USFWS National Wetlands Inventory data to identify areas mapped as wetland features (USFWS 2019)

General Biological Surveys

Vegetation mapping of the study area was conducted by Tierra Data, Inc. in 2017 and 2018. Plant communities were classified consistent with the California Vegetation Classification and Mapping Program (Sawyer et al. 2009; CDFW 2018) to the extent practical. General biological surveys were conducted over five site visits conducted between September 2017 and May 2018. Rare plant surveys and avian habitat assessments for the Bank Site were conducted in spring 2018. Habitat assessments for federally and state listed species with potential to occur within the study area included rating the habitat value for each species separately for foraging, nesting, and roosting.

In addition to special status species identified during general biological surveys (Appendix E), special status plant and wildlife species analyzed for potential to occur at the adjacent ORERP (Dudek 2018) were also reviewed for potential to occur within the study area.

Jurisdictional Wetland Resources

UNITED STATES ARMY CORP OF ENGINEERS DELINEATION SURVEYS

WOUS within the study area were delineated according to the methods outlined in the ACOE Wetland Delineation Manual (Environmental Laboratory 1987), the Interim Regional Supplement to the ACOE Wetland Delineation Manual: Arid West Region (ACOE 2008a), and A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western U.S. (ACOE 2008b). In addition, the 2016 Arid West Regional Wetland Plant List was referenced when conducting the delineation (Lichvar et al. 2016). Potential RWQCB jurisdiction was mapped to the same limits as ACOE jurisdiction.

CALIFORNIA COASTAL COMMISSION DELINEATION SURVEY

CCC-regulated wetlands were generally delineated pursuant to 14 CCR Section 13577 which establishes a one-parameter definition that only requires evidence of a single parameter to establish wetland conditions. However, within the Bank Site, where localized ponding occurs at several locations, some of which exhibit hydric soil indicators, CCC has concurred that wetland functions are extremely limited, if not absent, and these areas do not qualify as coastal wetlands (Huckelbridge pers. comm. 2020).

To delineate these areas in the field, CCC provides few guidelines on how to identify the upland boundaries of wetlands. These guidelines include:

- a) The boundary between land within predominantly hydrophytic cover and land with predominantly mesophytic or xerophytic cover;
- b) The boundary between soil that is predominantly hydric and soil that is predominantly non-hydric; or
- c) In the case of wetlands without vegetation or soils, the boundary between land that is flooded or saturated at some time during years of normal precipitation, and land that is not. (14 CCR Section 13577)

However, these guidelines are not technically field specific. CCC therefore defers to several other sources that delineators can reference when investigating wetland boundaries in the field. These include:

- 1987 ACOE Wetland Delineation Manual and Regional Supplements;
- The National Wetland Plant List, which replaces the USFWS's 1988
- National List of Plant Species that Occur in Wetlands (Lichvar et al. 2016); and
- Natural Resource Conservation Service Field Indicators of Hydric Soils in the U.S.

The CCC encourages reference of these resources in the context of professional judgment when determining wetland boundaries within the Coastal Zone.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE DELINEATION SURVEY

Potential CDFW-regulated streambed was delineated within Parcel A during the 2019 HDR wetland delineation survey; however, it was not addressed in the delineations reports conducted in 2017 and updated in 2020. Based on the presence of bed and bank, Nestor Creek and the Otay River Tributary have been identified as potential CDFW-regulated streambed. The limits of potential CDFW jurisdiction associated with the two creeks within the Bank Parcel was assumed to coincide with CCC-wetland limits.

Similar to Parcel A, Parcels B and C and the proposed berm breach location at the northwest corner of Bank Site were not a part of any of the above jurisdictional delineations which focused on the Bank Site. Therefore, at these locations, jurisdictional limits were evaluated based on incidental observations and desktop resources, including topographic mapping, national wetland inventory, aerial photography and vegetation mapping. Within the berm-breach area, potential CDFW jurisdictional limits were based upon the Otay River Tributary bank elevation and, per standard CDFW practice, extended to include the adjacent saltwater marsh habitat within the floodplain. ACOE, RWQCB, and CCC jurisdictional limits were based upon the Mean Higher High Water tide elevation.

AGENCY CONSULTATION

The District and the District's environmental consultant informally contacted ACOE, CCC, and CDFW regarding the proposed project. ACOE and CCC reviewed the wetland delineation reports and provided comments. During a follow up meeting, CCC staff concurred with the conclusions in the delineation report that no CCC jurisdictional wetlands are located within the Bank Site (Huckelbridge pers. Comm. 2020). The ACOE has also verbally approved the wetland delineation but has not yet issued a jurisdictional determination verification letter. CDFW provided a comment letter on the NOP. The District and environmental consultant followed up with a meeting to discuss their comments (Turner pers. Comm 2020).

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to biological resources are considered significant if any of the following occur:

- a) 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 the CDFW or USFWS
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW and USFWS
- c) Have a substantial adverse effect on state or federally-protected wetlands (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- d) Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (e) and (f) would result in no impact for the project-level wetland mitigation bank creation and program level PMPA, and therefore, are not included in the analysis below (see Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR).

Impact Analysis

Threshold (a) 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 the CDFW or USFWS.

Project Level – Wetland Mitigation Bank

CONSTRUCTION

Construction of the wetland mitigation bank would involve vegetation clearing, excavation, grading, and soil export activities to establish appropriate topographical conditions and tidal flows to support target marsh plain elevations followed by soil preparation and revegetation. Within the 83-acre Bank Parcel, approximately 76.21 acres would be permanently impacted. To reconnect tidal hydrology to the Bank Site, a berm breach of approximately 75 feet, which would partially be within the San Diego Bay NWR, would occur. After the berm is breached, the network of constructed tidal channels would facilitate distribution of tidal flows to the Bank Site.

Special Status Plant Species

No special status plant species were observed within the study area. However, nine special status plant species have the potential to occur within the Bank Site. These species and their associated habitat proposed for removal include:

- Estuary seablite and salt marsh bird's-beak have potential to occur within pickleweed mat and sea blite scrub, of which 2.2 acres are proposed for removal.
- Pacific saltbush has potential to occur within goldenbush scrub, broom scrub, and salt pan, of which 22.6 acres are proposed for removal.
- Coulter's goldfields have potential to occur within pickleweed mat, sea blite scrub, salt pan, and open areas in ice plant mat, of which 19.2 acres are proposed for removal.
- Lewis' evening primrose has potential to occur in goldenbush scrub, broom scrub, and annual grassland, of which 16.2 acres are proposed for removal.
- Nuttall's acmispon, beach goldenaster, Brand's phacelia, and aphanisma have the potential to occur within goldenbush scrub and broom scrub, of which 15.9 acres are proposed for removal.

Direct impacts could occur if these species are present during construction. Permanent impacts could occur from removal of these plant species, or temporary impacts could occur during construction if any areas are bridged, reinforced, or widened to accommodate construction equipment. Indirect impacts could occur if dust covered these species or if invasive plant species are introduced. This would be a significant impact. MM BR-1 would require biological resource protection measures be implemented during construction, MM BR-2 would require preconstruction rare plant surveys, and MM

BR-3 would require restoration of temporary impacts. Implementation of MM BR-1, MM BR-2, and MM BR-3 would reduce impacts to less than significant.

Special Status Wildlife Species

Several federally and state listed wildlife species are known to occur or have potential to occur within and adjacent to the proposed Bank Site, including Belding’s savannah sparrow, California least tern, Ridgway’s rail (light-footed), and western snowy plover. Table 3.3-9 summarizes the impacts on suitable nesting and foraging habitat for these species. As previously noted, the majority of the proposed Bank Site supports nonnative upland vegetation and project implementation would result in a net increase in native habitat, including subtidal open water habitat, mudflat habitat, and intertidal marsh.

Table 3.3-9. Suitable Habitat for Federally and State Listed Avian Species Impacted within the Bank Site and Berm Breach Site

Species	Habitat Function and Suitability	Bank Parcel (acre)	Breach Site (acre)	Total Acres
Belding's Savannah Sparrow	Nesting High	0.04	0.16	0.20
	Foraging High	0.04	0.16	0.20
California Least Tern	Nesting Low	13.38	0.12	13.50
	Foraging - Low	0.01	0.04	0.05
Ridgway's Rail	Nesting Low	0.05	0.19	0.24
	Foraging - Low	0.05	0.19	0.24
Western Snowy Plover	Nesting Low	13.38	0.12	13.50
	Foraging - Low	13.39	0.16	13.55

Belding’s Savannah Sparrow

As summarized in Table 3.3-9, project construction would impact approximately 0.20 acre of high-quality nesting and foraging habitat for Belding’s savannah sparrow, which could be considered significant based on its status as a state listed endangered species. The project would ultimately include approximately 59.1 acres of suitable breeding habitat for Belding’s savannah sparrow, resulting in a net increase. Removal of habitat during the nesting season could also result in direct mortality of adults or young. Dust and noise from construction could temporarily reduce the quality of suitable nesting habitat in the vicinity. This would be a significant impact. MM BR-1 would require biological resource protection measures be implemented during construction, MM BR-3 would require restoration of temporary impacts, and MM BR-4 would require preconstruction surveys for federally and state listed avian species. Implementation of MM BR-1, MM BR-3, and MM BR-4 would reduce impacts on Belding’s savannah sparrow to less than significant.

California Least Tern

As summarized in Table 3.3-9, project construction would impact approximately 0.05 acre of low-quality subtidal open water foraging habitat for California least tern; however, the project would ultimately include approximately 1.7 acre of suitable subtidal foraging habitat for California least tern, resulting in a net increase of suitable foraging habitat. The Bank Site and berm breach site currently provide approximately 13.5 acres of potential low-quality nesting habitat (sparsely vegetated ice plant mats and berms) for California least tern; however, as previously discussed, breeding and nesting has not been documented in the Bank Site, and California least tern exhibits high breeding site fidelity, so the probability of the site becoming occupied by breeding California least tern in the future when currently unoccupied is low (Atwood and Massey 1988). Project construction would impact 13.5 acres of potentially suitable low-quality nesting habitat through conversion to tidal and upland habitats that are not suitable for nesting. Given that California least tern has not been observed utilizing the project site over multiple years of avian surveys, the loss of potential low-quality California least tern breeding habitat would be less than significant. If the Bank Site became occupied by California least tern prior to construction, then the loss of breeding habitat would be considered significant, and the removal of habitat during the nesting season could result in direct mortality of adults or young. Dust and noise from construction could temporarily reduce the quality of additional suitable nesting habitat in the vicinity. These impacts would also be considered significant prior to mitigation. MM BR-1 would require biological resource protection measures be implemented during construction, MM BR-3 would require restoration of temporary impacts, and MM BR-4 would require preconstruction surveys for federally and state listed avian species. Implementation of MM BR-1, MM BR-3, and MM BR-4 would reduce impacts on California least tern to less than significant.

Ridgway's Rail (Light-footed)

As summarized in Table 3.3-9, project construction would impact approximately 0.24 acre of potential low-quality nesting habitat and somewhat higher-quality foraging habitat (pickleweed mats and open water) for Ridgway's rail. However, the project would ultimately create a net increase in the quantity of suitable high-quality habitat breeding habitat for Ridgway's rail. Suitable habitat within the Bank Site and berm breach site is not known to support Ridgway's rail. If the suitable habitat within the Bank Site or berm breach site became occupied by Ridgway's rail prior to construction, then the loss of breeding habitat would be considered significant, and the removal of habitat during the nesting season could result in direct mortality of adults or young. Dust and noise from construction could temporarily reduce the quality of suitable nesting habitat in the vicinity. This would be a significant impact. MM BR-1 would require biological resource protection measures be implemented during construction, MM BR-3 would require restoration of temporary impacts, and MM BR-4 would require preconstruction surveys for federally and state listed avian species. Implementation of MM BR-1, MM BR-3, and MM BR-4 would reduce impacts on Ridgway's rail (light-footed) to less than significant.

Western Snowy Plover

As summarized in Table 3.3-9, project construction would impact approximately 13.5 acres of potential low-quality nesting habitat (sparsely vegetated ice plant mats and berms) for western snowy plover. However, as previously discussed, breeding and nesting has not been documented in the Bank Site, and western snowy plover exhibits high breeding site fidelity, so the probability of the site becoming occupied by breeding western snowy plover in the future when currently not utilized for breeding is low (Powell and Collier 2000). Project construction would permanently convert the 13.5 acres of potentially suitable low-quality nesting habitat into tidal and upland habitats that are not suitable for nesting. However, low-quality nesting habitat would remain on the western berm as refuge from high

tides and the creation of shallow slopes (20-30 degrees) would improve access to foraging habitat for young if western snowy plover began breeding on site following the completion of construction. Given that the project site only supports occasional roosting, the loss of 13.5 acres of low-quality western snowy plover habitat would be less than significant. If the Bank Site became occupied by western snowy plover prior to construction then the loss of breeding habitat would be considered significant, and the removal of habitat during the nesting season could result in direct mortality of adults or young. Dust and noise from construction could temporarily reduce the quality of additional suitable nesting habitat in the vicinity. These impacts would also be considered significant prior to mitigation. MM BR-1 would require biological resource protection measures be implemented during construction, MM BR-3 would require restoration of temporary impacts, and MM BR-4 would require preconstruction surveys for federally and state listed avian species. Implementation of MM BR-1, MM BR-3, and MM BR-4 would reduce impacts on western snowy plover to less than significant.

Other Special Status Wildlife Species

Other special status wildlife known to occur within or adjacent to the study area include burrowing owl, northern harrier (*Circus cyaneus*), loggerhead shrike (*Lanius ludovicianus*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). Other special status species with potential to occur but not observed within the study area include short-eared owl, Brant, bald eagle, black tern, large-billed savannah sparrow, black skimmer, orange-throated whiptail, and western red bat.

Although permanent and temporary impacts on suitable breeding and foraging habitat for special status species would occur, project implementation would result in the creation of approximately 64.8 acres of subtidal and intertidal habitat and restoration of 11.6 acres of transitional/upland buffer habitat that would continue to provide improved quality breeding and foraging habitat. With the exception of the strictly terrestrial species (orange-throated whiptail, burrowing owl, and San Diego black-tailed jackrabbit), the creation and restoration of native habitat would result in an overall benefit (net increase in higher quality nesting and foraging habitat) to the sensitive species known to occur, or with the potential to occur, in the study area.

Within the City of San Diego Multiple Species Conservation Program (MSCP) subarea, there are 38,586 acres of suitable habitat for orange-throated whiptail and 28,669 acres of suitable habitat for black-tailed jackrabbit. Additionally, the project abuts a significant contiguous block of suitable habitat to the east; therefore, the net loss of 64.8 acres of suitable habitat (<0.2 percent) would not have a significant impact on the local subpopulations of these species. However, per the Migratory Bird Treaty Act, should construction activities destroy the active nest of any migratory avian species, the impact would be considered significant. Additionally, trapping and killing a burrowing owl in their burrow/den during construction would be considered significant. MM BR-1 would require biological resource protection measures be implemented during construction, MM BR-3 would require restoration of temporary impacts, and MM BR-5 would require preconstruction surveys for burrowing owl. Implementation of MM BR-1, MM BR-3, and MM BR-5 would reduce impacts on other special status species to less than significant.

OPERATION

Once all performance standards have been met, the Bank Site is anticipated to be self-sustaining. However, because of the urban surroundings, long-term management may be needed, such as invasive species monitoring and removal, trash removal, maintenance of site control measures (e.g., fencing), and restoration of any damage from human or maintenance activities or natural phenomenon.

Special Status Plant and Wildlife Species

During operation of the wetland mitigation bank, maintenance activities have the potential to introduce invasive species that could degrade habitat quality for wildlife or outcompete native plant species, introduce pollutants to the project site and San Diego Bay through the use of herbicides, and disrupt nesting birds if maintenance activities are conducted during the nesting season. This would be considered a significant impact. MM BR-6 would require a long-term operations maintenance and management plan be implemented. Implementation of MM BR-6 would reduce impacts from operational activities on special status plants and wildlife species to less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

CONSTRUCTION AND OPERATION

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels, subject to a project-level review by the district. Similar to the discussion under the Project Level - Wetland Mitigation Bank section above, construction of future commercial development would involve vegetation clearing, excavation, and grading.

Special Status Plant Species

As discussed under the Project Level - Wetland Mitigation Bank section above, no special status plant species were observed during biological surveys. However, estuary seablite, salt marsh bird's-beak, Coulter's goldfields, Pacific saltbush, and Lewis's evening primrose have potential to occur within suitable habitat on Parcel A. Lewis's evening primrose has potential to occur within suitable habitat on Parcel B, and estuary seablite, salt marsh bird's-beak, Coulter's goldfields, and Lewis's evening primrose have potential to occur within suitable habitat on Parcel C.

Direct impacts could occur if these species are present during construction. Permanent impacts could occur from removal of these plant species or temporary impacts could occur during construction if any areas are bridged, reinforced, or widened to accommodate construction equipment. Indirect impacts could occur if dust covered these species or if invasive plant species are introduced. This would be a significant impact. MM BR-1 would require biological resource protection measures be implemented during construction, MM BR-2 would require preconstruction rare plant surveys, MM BR-3 would require restoration of temporary impacts, and MM BR-7 would require biological resource protection measures to be implemented during operations. Implementation of MM BR-1, MM BR-2, MM BR-3, and MM BR-7 would reduce impacts on special status plants to less than significant.

Special Status Wildlife Species

Several federally and state listed wildlife species are known to occur or have potential to occur within and adjacent to the proposed Bank Site, including Belding's savannah sparrow, California least tern Ridgway's rail (light-footed), and western snowy plover. Table 3.3-10 summarizes impacts to suitable nesting and foraging habitat for these species.

Table 3.3-10. Suitable Habitat for Federally and State Listed Avian Species within Parcels A, B, and C

Species	Habitat Function and Suitability	Parcel A (acre)	Parcel B (acre)	Parcel C (acre)
Belding's Savannah Sparrow	Nesting - High	0.34	—	0.18
	Foraging - High	0.34	—	0.18
	Roosting - Low	2.06	0.72	7.76
California Least Tern	Nesting - Low	0.00	0.00	0.00
	Foraging - Low	—	—	0.02
	Roosting - Low	0.00	0.00	0.00
Ridgway's Rail	Nesting - Low	0.34	—	0.20
	Foraging - Low	0.34	—	0.20
Western Snowy Plover	Nesting - Low	0.00	0.00	0.00
	Foraging - Low	0.00	0.00	0.02
	Roosting - Low	0.00	0.00	0.00

Belding's Savannah Sparrow

As summarized in Table 3.3-10, future commercial development of Parcels A and C may result in direct impacts on suitable habitat for state endangered Belding's savannah sparrow. The eastern edge of Parcel A and the Otay River Tributary support suitable nesting and foraging habitat (0.34 acre) for the species parcel, while Parcel C supports a sliver of suitable nesting and foraging habitat (0.18 acre) on its western margin in Nestor Creek. All three parcels could support roosting. Loss of occupied breeding habitat for Belding's savannah sparrow would be a significant impact. Additionally, construction and operations noise, lighting, and dust would have potential to indirectly impact Belding's savannah sparrow if these activities caused adults to abandon active nests or increase nest predations. Similarly, adverse long-term edge effects may be introduced by development, such as the introduction of invasive species, lighting, noise, pets, and contaminants from stormwater runoff, etc. These indirect and long-term impacts would be significant if they would result in increased mortality of adults or young. MM BR-1 would require biological resource protection measures be implemented during construction, MM BR-3 would require restoration of temporary impacts, MM BR-4 would require preconstruction surveys for federally and state listed avian species, MM BR-7 would require biological resource protection measures to be implemented during operations, and MM BR-8 would require breeding season surveys on Parcels A, B, and C for special status avian species. Implementation of MM BR-1, MM BR-3, MM BR-4, MM BR-7, and MM BR-8 would reduce impacts on Belding's savannah sparrow to less than significant.

Ridgway's Rail (Light-footed)

As summarized in Table 3.3-10, future commercial development of Parcels A and C may result in direct impacts on suitable nesting and foraging habitat for federally and state endangered Ridgway's rail (light-footed). The eastern edge of Parcel A supports low-quality nesting and foraging habitat for the species parcel, while Parcel C supports a sliver of low-quality nesting and foraging habitat on its western margin in Nestor Creek. Although not known to be occupied at this time, should Ridgway's rail begin utilizing the habitat on these parcels, loss or degradation of habitat would be a significant impact. Additionally, construction and operations noise, lighting, and dust would have potential to indirectly impact Ridgway's rail if foraging or breeding were to occur within 500 feet of any future projects. Similarly, adverse long-term edge effects may be introduced by development, such as the introduction of invasive species, lighting, noise, pets, contaminants from stormwater runoff, etc. These long-term impacts would be significant if Ridgway's rail are foraging or breeding within 500 feet of any future projects. MM BR-1 would require biological resource protection measures be implemented during construction, MM BR-3 would require restoration of temporary impacts, MM BR-4 would require preconstruction surveys for federally and state listed avian species, MM BR-7 would require biological resource protection measures to be implemented during operations, and MM BR-8 would require nesting season surveys on Parcels A, B, and C for special status avian species. Implementation of MM BR-1, MM BR-3, MM BR-4, MM BR-7, and MM BR-8 would reduce impacts on Ridgway's Rail (light-footed) to less than significant.

Western Snowy Plover and California Least Tern

As summarized in Table 3.3-10, Parcels A, B, and C contain no suitable nesting habitat for western snowy plover or California least tern. Therefore, any future development of these parcels would not directly impact nesting habitat. However, construction noise, lighting, and dust would have potential to indirectly impact western snowy plover or California least tern if foraging or breeding were to occur within 500 feet of any future projects. Similarly, adverse long-term edge effects may be introduced by development, such as the introduction of invasive species, lighting, noise, pets, contaminants from stormwater runoff, etc. These long-term impacts would be significant if western snowy plover or California least tern was found foraging or breeding within 500 feet of any future projects. MM BR-1 would require biological resource protection measures be implemented during construction, MM BR-3 would require restoration of temporary impacts, MM BR-4 would require preconstruction surveys for federally and state listed avian species, MM BR-7 would require biological resource protection measures to be implemented during operations, and MM BR-8 would require nesting season surveys on Parcels A, B, and C for special status avian species. Implementation of MM BR-1, MM BR-3, MM BR-4, MM BR-7, and MM BR-8 would reduce impacts on western snowy plover and California least tern to less than significant.

Other Special Status Wildlife Species

Other special status wildlife with potential to utilize habitat on Parcels A, B, and C include burrowing owl, northern harrier, loggerhead shrike, orange-throated whiptail, San Diego black-tailed jackrabbit, and western red bat. Other special status species with potential to utilize habitat on Parcels A and C include Clark's marsh wren, Brant (wintering and staging), and large-billed savannah sparrow. The small quantities of suitable habitat being impacted at each of the three parcels relative to preserved habitat in the region would be a less than significant impact.

Burrowing Owl. Future development of Parcels A, B, and C may result in direct impacts on suitable breeding habitat for burrowing owl, which is designated as a state SSC. Based upon guidance

provided in the 2012 CDFW Burrowing Owl Mitigation Staff Report, loss of occupied breeding habitat for burrowing owl would be significant. MM BR-1 would require biological resource protection measures be implemented during construction, MM BR-3 would require restoration of temporary impacts, MM BR-5 would require preconstruction surveys for burrowing owl, MM BR-7 would require biological resource protection measures to be implemented during operations, and MM BR-8 would require nesting season surveys on Parcels A, B, and C for special status avian species. Implementation of MM BR-1, MM BR-3, MM BR-5, MM BR-7, and MM BR-8 would reduce impacts on other special status species to less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

MM BR-1 Implement Biological Resource Protection Measures During Construction. The District (or project proponent) shall implement the following BMPs during construction to minimize direct and indirect impacts on special status species and their habitats.

- a) Prior to the commencement of construction, the District (or project proponent) shall designate a Project Biologist (a person with, at minimum, a bachelor's degree in biology, ecology, or environmental studies with familiarity with federally and/or state listed plant and wildlife species and other, nonlisted special status plant and wildlife species with the potential to be impacted by the project) who shall be responsible for overseeing compliance with the protective measures for biological resources identified herein during vegetation clearing and work activities within and abutting areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife, and shall maintain communications with the contractor to ensure that issues relating to biological resources are appropriately managed. The Project Biologist may designate qualified biologists or biological monitors to help oversee project compliance or conduct the preconstruction surveys for special status species identified in MM BR-2, MM BR-4, and MM BR-8. These biologists shall have familiarity with the species for which they would be conducting preconstruction surveys or monitoring construction activities.
- b) The Project Biologist or designated qualified biologist shall review final plans, designate areas not proposed for disturbance that need temporary fencing per subsection (h) below (e.g., sensitive habitat area [SHA] fencing), and monitor construction activities within and adjacent to areas with native vegetation communities or special status plant and wildlife species. The qualified biologist shall monitor activities during critical times such as vegetation removal, initial ground-disturbing activities, and the installation of BMPs and fencing to protect native species, and shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed. The qualified biologist shall monitor the SHA fencing and shall provide corrective measures to the contractor to ensure that the fencing is maintained throughout construction. The qualified biologist shall have the authority to stop work and redirect work if a special status wildlife species is encountered within the project area during construction until the Project Biologist or qualified biologist determine(s) that the animal would not be harmed (i.e., no ground disturbing activities are proposed within 100 feet) or it has left the construction area on its own. Also see subsection (e) below.

- c) Prior to the start of construction, all project personnel and contractors who would be on site during construction shall complete mandatory training conducted by the Project Biologist or a designated qualified biologist. Any new project personnel or contractors that come on board after the initiation of construction shall also be required to complete the mandatory Worker Environmental Awareness Program (WEAP) training prepared and conducted by the Project Biologist before they commence with work. The training shall advise workers of potential impacts on sensitive habitat and federally and/or state listed and other special status species and the potential penalties for impacts on such habitat and species. At a minimum, the training shall include the following topics: (1) occurrences of the special status species and sensitive vegetation communities in the project area (including vegetation communities subject to ACOE, CDFW, and RWQCB jurisdiction), (2) protective measures to be implemented in the field, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced areas to avoid sensitive resource areas in the field (i.e., avoided areas delineated on maps or on the project site by fencing); (3) the protocol to resolve conflicts that may arise at any time during the construction process; and (4) reporting requirements and procedures to follow should a federally and/or state listed species be encountered during construction.

- d) The training program shall include color photos of federally and/or state listed species, other special status species, and sensitive vegetation communities. Following the education program, the photos shall be posted in the contractor and resident engineer's office where the photos shall remain throughout the duration of project construction. Photos of the habitat in which sensitive species are found shall be posted onsite. The contractor shall be required to provide the District with evidence of the employee training (e.g., a sign-in sheet) on request.

Project personnel and contractors shall be instructed to immediately notify the Project Biologist or designated biologist of any incidents that could affect sensitive vegetation communities or special status species. Incidents could include fuel leaks or injury to any wildlife. The Project Biologist shall notify the District of any incident within 24 hours of being noticed.

- e) Vegetation removal and initial ground disturbance shall occur outside of the bird nesting season (February 15 – September 15). Should vegetation removal or initial ground disturbance be required during the bird nesting season, the Project Biologist must conduct a preconstruction nesting survey. Should active nests be present, a construction avoidance buffer of 300 feet is required until the young have fledged or the nest has failed naturally. The biologist may reduce the buffer if, in their professional judgment, topography or other factors mitigate potential impacts from construction vibration, noise, dust, and visual intrusion. For federally and state listed species, see MM BR-4.
- f) The Project Biologist shall have the authority to halt work, and redirect work if necessary to ensure the proper implementation of species and habitat protection. The Project Biologist shall report any noncompliance issues to the District within 24 hours of its occurrence.

- g) The Project Biologist shall monitor the project site immediately prior to and during construction to identify the presence of invasive weeds and shall recommend measures to avoid their inadvertent spread in association with the project. All construction equipment shall be washed and cleaned of debris prior to entering the construction site to minimize the spread of invasive weeds.
- h) All habitat regulated by CCC, ACOE, RWQCB, USFWS, NMFS, and/or CDFW, and habitat with potential to support special status species outside of, and abutting the designated project limits of disturbance shall be designated as SHAs on project maps. Prior to construction, the Contractor shall delineate the project limits, including construction, staging, lay-down, and equipment storage areas, and erect the construction boundary, with fencing or flagging, along the perimeter of the identified construction area to protect adjacent sensitive habitats and sensitive-plant populations. SHAs shall be clearly delineated with fencing or flagging or other BMPs prior to construction to inform construction personnel where the SHAs are located and shall be confirmed by the Project Biologist or designated biologist prior to construction. SHAs fencing may include orange plastic snow fence, orange silt fencing, or stakes and flagging in areas of flowing water. No personnel, equipment, or debris shall be allowed within the SHAs. Fences and flagging shall be installed by Contractor in a manner that does not impact habitats to be avoided and such that it is clearly visible to personnel on foot and operating heavy equipment. 10 days prior to initiating construction, the Contractor shall submit to the District final plans for initial clearing and grubbing project construction. These final plans shall include photographs that show the fenced and flagged SHA limits and all areas to be impacted or avoided. If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied. Temporary construction fences and markers shall be maintained in good repair by the Contractor during construction and shall be removed upon completion of project construction.
- i) No work activities, materials or equipment storage, or access shall be permitted outside the project limits without permission from the District. All parking and equipment storage by the contractor related to the project shall be confined to the project limits. Contractor shall not conduct work in undisturbed areas and sensitive habitat outside and adjacent to the project limits shall not be used for parking or equipment storage. Project-related vehicle traffic shall be restricted to the project limits and established roads and construction access points.
- j) Construction activities shall be limited to daylight hours to the extent feasible. If nighttime activities are unavoidable, then workers shall direct all lights for nighttime lighting into the work area and shall minimize the lighting of natural habitat areas adjacent to the work area. The contractor shall use light glare shields to reduce the extent of illumination into sensitive habitats. If the work area is located near surface waters, the lighting shall be shielded such that it does not shine directly into the water.
- k) Clearing shall be confined to the minimal area necessary to facilitate construction activities. Cleared vegetation and spoils shall be disposed of daily at a permanent offsite spoils location or at a temporary onsite location that would not create habitat for special status wildlife species. Spoils and dredged material shall be disposed



of at an approved site or facility in accordance with all applicable federal, state, and local regulations.

- l) Food-related and other garbage shall be disposed of in wildlife-proof containers and shall be removed from the project area daily during the construction period. Vehicles carrying trash or hauling dirt/sediment shall be required to have loads covered and secured to prevent dirt, trash, and debris from falling onto roads and adjacent properties.
- m) All construction equipment used for the project shall be maintained in accordance with manufacturer's recommendations, and requirements and shall be maintained to comply with noise standards (e.g., exhaust mufflers, acoustically attenuating shields, shrouds, or enclosures).
- n) The Contractor shall store all construction-related vehicles and equipment in the designated staging areas.
- o) The Contractor shall avoid wildlife entrapment by completely covering or providing escape ramps for all excavated steep-walled holes or trenches more than 1 foot deep at the end of each construction work day. The qualified biologist shall inspect open trenches and holes and shall remove or release any trapped wildlife found in the trenches or holes prior to filling by the construction contractor
- p) Special status wildlife can be attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar features; construction equipment; or construction debris left overnight in areas that may be occupied by special status species that could occupy such structures shall be inspected by a qualified biologist prior to being used for construction. Such inspections shall occur at the beginning of each day's activities for those materials to be used or moved that day. If necessary, and under the direct supervision of the biologist, the structure may be moved up to one time to isolate it from construction activities, until the special status species has moved from the structure of their own volition or has been captured and relocated.
- q) Capture and relocation of trapped or injured wildlife listed under FESA or CESA can only be performed by personnel with appropriate state and/or federal permits. Any trapped or injured wildlife and any incidental take shall be reported to the District within 1 working day of the discovery including dates, locations, habitat description, and any corrective measures taken to assist the injured special status species encountered.
- r) The spread of dust from work sites to sensitive natural communities or sensitive-species habitats on adjacent lands shall be minimized by use of a water truck. Dirt access roads, haul roads, and spoils areas shall be watered to prevent the spread of dust. Follow Storm Water Pollution Prevention Plan (SWPPP) to reduce dust emissions.
- s) The Contractor shall strictly limit their activities, vehicles, equipment, and construction materials to established roads and the project disturbance limits. Signs shall be posted within the staging area, non-paved access routes, and project site with a maximum 15 mile per hour speed limit.

- t) To prevent harassment, injury, or mortality of sensitive wildlife by dogs or cats, no canine or feline pets shall be permitted in the active construction area.
- u) Plastic monofilament netting or similar material shall not be used for erosion control because smaller wildlife may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackifier hydroseeding compounds. This limitation shall be communicated to the contractor through specifications or special provisions included in the construction bid solicitation package.
- v) Pest and weed management shall be conducted in compliance with the District's Integrated Pest Management Plan.
- w) Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within secondary containment per the SWPPP.
- x) The Contractor shall be required to conduct vehicle refueling in upland areas where fuel cannot enter WOUS or WOS and in areas that do not have potential to support sensitive habitat or federally and/or state listed species. Any fuel containers, repair materials including creosote-treated wood, and/or stockpiled material that is left onsite overnight shall be secured in secondary containment within the work area and staging/assembly area, and covered with plastic at the end of each work day.
- y) In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor shall ensure that all portable fuel containers are securely locked and/or removed from the project site.
- z) Equipment and containers shall be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces shall be cleaned up and disposed of following the guidelines identified in the SWPPP, Materials Safety Data Sheets, and any specifications required by other permits issued for the project.
- aa) The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment.
- bb) If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment shall be used to capture spills/leaks within all areas. Where feasible, maintenance of equipment shall occur in upland areas where fuel cannot enter WOUS or WOS and sensitive habitat areas.

MM BR-2 Preconstruction Rare Plant Surveys. Protocol rare plant surveys shall be conducted to locate special status plant species onsite prior to the start of construction. Should a significant population (>3 individuals) of the target species (estuary seablite, salt marsh bird's-beak, Pacific saltbush, Coulter's goldfields, Nuttall's acmispon, beach goldenaster, Brand's star phacelia, aphanisma, beach goldenaster, and Lewis' evening primrose) be identified, the District (or project proponent) shall collect seed from those individuals present within the impact areas and broadcast 50-percent of the seed in the appropriate restoration areas following soil preparation as supervised by a qualified Lead Biologist (Lead Biologist Minimum Qualifications: Bachelor's degree in Biology [or equivalent, such as a degree in Natural Resources] and a minimum of 5 years of restoration experience or equivalent, such as restoration certification and at least 12 semester units of botany course work or 100 hours of independent study with



CNPS or other local botanical society, or 5+ years of seed collection and propagation experience with the target genera). Seeding shall be considered successful if the target species is observed at least twice over a five year period. Fifty-percent of the collected seed shall be stored by a reputable seed bank. Should the seeded areas not meet the performance criteria defined above, the District shall identify an appropriate off-site location to implement a germination and habitat suitability study. The study would review existing available literature and include methodology to test abiotic factors essential for growth of the target species, including, but not limited to, soil pH, permeability, slope, sun exposure, and rain fall frequency, duration, and distribution patterns. Metrics would include germination rates, survival rates, and productivity based upon seed or fruit set.

MM BR-3 Restoration of Temporary Impacts. To avoid or minimize the permanent loss of sensitive habitat resulting from temporary project features, any areas that are bridged, reinforced, or widened to accommodate construction equipment would be restored to preconstruction conditions and vegetated with appropriate native plant species once construction is complete. This includes potential impacts to seablite scrub, pickleweed mats, salt pan, and open water that are subject to regulation by CCC, ACOE, and RWQCB and may be subject to regulation by CDFW. To avoid or minimize any long-term impacts on habitat or vegetation, staging areas, access routes, and other disturbed areas shall be decompacted and recontoured to ensure proper site drainage and revegetated with appropriate native species. Any temporary equipment, structures, or utilities (e.g., water, power) installed at the project site shall be removed at the completion of construction.

MM BR-4 Preconstruction Surveys for Federally and State Listed Avian Species. Initial clearing and ground disturbance shall occur outside of the nesting bird season (February 15 – September 15). All other construction-related activities shall occur outside of the nesting bird season to the maximum feasible extent. Should construction need to occur during the nesting bird season, prior to initiation of construction, a District-approved biologist shall:

- a) Perform a minimum of three focused surveys, on separate days, to determine the presence of Ridgway's rail (light-footed) or Belding's savannah sparrow nest building activities, egg incubation activities, or brood rearing activities within 500 feet of project construction proposed during the nesting season that could impact these species. The surveys shall begin a maximum of 7 days prior to project construction and one survey shall be conducted the day immediately prior to the initiation of work. Additional surveys shall be done once a week during project construction in the nesting season. These additional surveys may be suspended once fledglings have left the nest or if noise at the edge of nesting habitat is less than 60 dBA Leq where the berm occurs between construction and nesting activities.
- b) If an active Ridgway's rail (light-footed) or Belding's savannah sparrow nest is found within a minimum of 100 feet of project construction, the Biological Monitor shall report the nest(s) to the District. A buffer greater than 100 feet may be assessed at the discretion of the monitoring biologist based on species sensitivity, topography, noise/duration of construction activities, etc., to protect active nests. After initial identification of the nest, the biological monitor shall not approach within

25 feet of an active nest; nest monitoring shall occur with binoculars. Signage and SHA fencing shall be installed to deter people from entering any area with an active nest. Work within 500 feet of the active nest shall be halted. The District shall develop an Avoidance and Minimization Plan, including determining whether the existing berm provides adequate protection for the nest to reduce or eliminate the buffer and measures to minimize construction noise at the nest site if not (such as, installation of noise barriers and/or modification in quantity, location or type of equipment), a monitoring plan, and an adaptive management strategy and/or contingency options.

MM BR-5 Preconstruction Surveys for Burrowing Owl. A preconstruction survey shall be conducted by a qualified biologist in accordance with the survey requirements detailed in the California Department of Fish and Game's March 7, 2012, Staff Report on Burrowing Owl no less than 14 days before initial ground-disturbing activities (California Department of Fish and Game 2012). Any active burrow found during preconstruction survey efforts shall be mapped and provided to the construction foreman. If no active burrows are found, no further mitigation shall be required.

A construction avoidance buffer shall be placed around occupied burrows. Recommended buffer distances are based on time of year and level of disturbance:

- April 1 – August 15: Low disturbance 656 feet, medium and high disturbance 1,640 feet
- August 16 – October 15: Low and medium disturbance 656 feet, high disturbance 1,640 feet
- October 16 – March 31: Low disturbance 164 feet, medium disturbance 328 feet, high disturbance 1,640 feet

If owls must be moved away from the disturbance area, passive relocation is preferable to trapping. Relocation shall be implemented only during the nonbreeding season by a qualified biologist. Owls shall be excluded from burrows in the immediate impact zone by installing one-way doors in burrow entrances. One-way doors shall be left in place for 48 hours to ensure owls have left the burrow before excavation.

MM BR-6 Implement Long-Term Operations Maintenance and Management Plan. A Long-Term Management Operations and Maintenance Plan shall be prepared and implemented. The plan shall address maintenance activities, associated minimization measures, monitoring requirements and adaptive management strategies to be implemented after the site has met its fifth year performance criteria and been accepted by the agencies. The Long Term Operations and Maintenance Management Plan shall include measures to minimize the potential introduction of invasive species during maintenance activities including, but not limited to: washing all equipment prior to entering the site from another location, removing invasive species before seeding to the maximum extent feasible, collecting all plant material removed during maintenance securely, such as in a burlap bag, and removing from the site. The plan shall prohibit the use of pesticides or herbicides with potential toxicity to aquatic or terrestrial wildlife species. Maintenance and trash/debris removal shall be conducted outside of the bird nesting season (February 15 – September 15) to the maximum extent feasible. If maintenance must occur during the nesting season, a qualified



biologist shall conduct preconstruction nesting bird surveys and direct maintenance staff to areas not occupied by nesting birds. The plan shall include contingency erosion control BMPs should they be needed following especially large storms. Should supplemental planting be required, all container stock shall be certified pest free and inspected for pests prior to being unloaded on site. At a minimum, the plan shall include biannual inspections for invasive species cover, fence inspection, vandalism and illegal dumping. The plan shall include long-term performance criteria to include, at a minimum, no perennial invasive species (ranked by California Invasive Plant Council as moderate to high) and less than 5 percent annual invasive species relative cover. An assessment of habitat function shall be conducted every 10 years. At a minimum, the assessment shall include a wildlife use assessment and an assessment of non-native vegetative cover. The Final Monitoring Report upon which all signatory agencies accept the mitigation site as complete shall serve as the baseline conditions for long-term monitoring. Contingency measures such as supplemental weeding, planting, grading and erosion control shall be included in the plan. A threshold for implementing contingency measures, such as assessment results with no more than -10 percent deviation from baseline shall be included.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM BR-1 Implement Biological Resource Protection Measures During Construction.

MM BR-2 Preconstruction Rare Plant Surveys.

MM BR-3 Restoration of Temporary Impacts.

MM BR-4 Preconstruction Surveys for Federally and State Listed Avian Species.

MM BR-5 Preconstruction Surveys for Burrowing Owl.

MM BR-7 Implement Biological Resource Protection Measures During Operations for Parcels A, B, and C. To avoid or minimize potential operations impacts on biological resources resulting from development of Parcels A, B, and C, the following measures shall be implemented:

- a) Landscape plans shall not include the use of plant species considered invasive by California Invasive Plant Council. All plant species specified in the landscape plans shall be certified free of pests, including plant pathogens.
- b) Light glare shields shall be included in the project design to reduce the extent of illumination into sensitive habitats. If lighting is located near surface waters, it shall be shielded such that it does not shine directly into the water.
- c) Masonry block walls or equivalent shall be erected around the perimeter of the project area to prevent domestic pets or other animals that could harm biological resources in adjacent habitats.
- d) The commercial development project proponent shall ensure that operation noise levels are kept below 60 dBA Leq at the margin of the nearest occupied breeding habitat for federally or state-listed species.
- e) The commercial development project proponent shall design the project such that no stormwater runoff shall enter adjacent native habitat areas. All stormwater runoff shall be channeled into storm drains.

MM BR-8 Wildlife Surveys for Parcels A, B, and C. The District (or project proponent) shall conduct nesting season (February 15 – September 15) surveys on Parcel A for Belding’s savannah sparrow, Ridgway’s rail (light-footed), western snowy plover, and burrowing owl; on Parcel B for Belding’s savannah sparrow, Ridgway’s rail light-footed, and burrowing owl; and on Parcel C for burrowing owl prior to project initiation. If no special status wildlife species are present, no further mitigation shall be required.

Should occupied Belding’s savannah sparrow habitat be proposed for permanent impact, the District shall provide salt marsh establishment within the Bank Site at a minimum 1:1 mitigation ratio to ensure no net loss of breeding habitat or approved compensatory mitigation.

Should occupied Ridgway’s rail light-footed habitat be proposed for permanent impact, the District shall provide salt marsh establishment within the Bank Site at a minimum 1:1 mitigation ratio to ensure no net loss of breeding habitat or approved compensatory mitigation.

Should occupied western snowy plover or California least tern breeding habitat be proposed for permanent impact, the District shall provide habitat establishment within the San Diego Bay at a minimum 1:1 mitigation ratio to ensure no net loss of breeding habitat or approved compensatory mitigation.

Should habitat occupied by a breeding pair of burrowing owl be proposed for permanent impact, the District shall provide mitigation on the mitigation methods section of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 2012). To mitigate for permanent impacts on nesting, occupied and satellite burrows, and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced at a minimum 1:1 ratio.

Significance after Mitigation

For both the project-level and program-level components, implementation of MM BR-1, MM BR-2, MM BR-3, MM BR-4, and MM BR-5 would be required. Implementation of MM BR-1 would require implementation of biological resource protection measures during construction, which would reduce impacts on special status plants and wildlife by requiring a range of measures, such as WEAP training and requiring vegetation removal occur outside of bird nesting season. Implementation of MM BR-2 would require preconstruction rare plant surveys, which would identify target species that would need to be restored. Implementation of MM BR-3 would require restoration of temporary impacts, which would restore suitable habitat. Implementation of MM BR-4 would require preconstruction avian surveys for federally and state listed species to determine presence of these species and install appropriate buffers. Implementation of MM BR-5 would require preconstruction surveys for burrowing owl to determine presence of the species and install appropriate buffers.

For the project-level wetland mitigation bank, implementation of MM BR-6 would be required. Implementation of MM BR-6 would require a long-term operations maintenance and management plan for the mitigation bank to minimize the introduction of invasive species. For the program-level future commercial development, implementation of MM BR-7 and MM BR-8 would be required. Implementation of MM BR-7 would require biological resource protection measures to be implemented during operations. Implementation of MM BR-8 would require wildlife surveys be conducted on Parcels A, B, and C prior to construction to determine presence of species in order to avoid impacts.

Implementation of MM BR-1, MM BR-2, MM BR-3, MM BR-4, MM BR-5, MM BR-6, MM BR-7, and MM BR-8 would reduce impacts on special status plants and wildlife as a result of the proposed project to less than significant.

Threshold (b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS.

Project Level – Wetland Mitigation Bank

No vegetation communities with a sensitive state rank occur within the study area and no USFWS designated critical habitat occur within the study area. However, several habitats within the project site have potential to support special status species (such as goldenbush scrub, broom scrub, pickleweed mat, seablite scrub, salt pan, mudflat, saltgrass flats, ice plant mats, and non-native grassland) or may be regulated as WOUS, WOS, CDFW streambed, or CCC coastal wetlands. These habitats could be considered ESHAs and are discussed under Threshold (c). Subtidal open water habitat located at the berm breach site is regulated as coastal wetland by CCC and designated EFH by NMFS. Construction of the breach site would take approximately 1 month and would be excavated to a depth of up to -3.5 feet NAVD88 and would be 75 feet wide. The breach site would be the main subtidal channel that brings tidal flow into the wetland and would be the widest and deepest channel. The breach site is approximately 0.33 acre and is located on USFWS NWR property.

Construction of the breach has potential to remove 0.04 acre of eelgrass (*Zostera spp.*) habitat (if present within the 0.04 acre of subtidal open water habitat within the breach location) and introduce pollutants from construction equipment into San Diego Bay via the Otay River Tributary. Breach construction also removes 0.16 acre of salt marsh and 0.01 acre of salt pan habitat, thereby reducing the water quality benefits that these communities would normally provide. The salt marsh and/or subtidal open water habitats are regulated by ACOE and CCC, pursuant to the CWA and CCA, as well as providing potentially suitable habitat for pacific groundfish and coastal pelagic species regulated by NMFS and Belding's savannah sparrow (foraging/nesting), Ridgway's rail (foraging/nesting), California least tern (foraging), and western snowy plover (foraging), regulated by CDFW and USFWS. Therefore, the direct impacts on 0.04 acre of subtidal open water habitat, 0.16 acre of salt marsh, and 0.01 acre of salt pan during breach construction would be considered a significant impact. Additionally, construction of the proposed berm breach would make approximately 0.2 acre of subtidal habitat associated with Otay River Tributary unavailable for foraging and for use as refuge and nursery by coastal pelagic and Pacific groundfish for approximately 1 month. This very short duration and minor reduction in EFH would not be expected to result in significant impacts on the sustainability of coastal pelagic or pacific groundfish fisheries. The introduction of weedy nonnative species and soil erosion, should it occur, also has potential to introduce pollutants into San Diego Bay, which would significantly degrade the habitat described above.

Compliance with the CWA during construction would also minimize potential direct and indirect temporary impacts on water quality. As a result, temporary impacts on water quality are not anticipated. However, the net loss or degradation of subtidal habitat, including eelgrass (if present), salt pan, and saltmarsh habitat, would be significant.

MM BR-1 would require biological resource protection measures be implemented during construction, MM BR-3 would require restoration of temporary impacts, MM BR-9 would require pre- and post-construction eelgrass surveys, and MM BR-10 would require compensatory mitigation for impacts

on regulated waters or streambeds. Implementation of MM BR-1, MM BR-3, MM BR-9, and MM BR-10 would reduce impacts on sensitive natural communities to less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

No vegetation communities with a sensitive state rank occur on Parcels A, B, or C, and no USFWS-designated critical habitat occurs on Parcels A, B, or C. While no construction is proposed at this time, development of these parcels would likely occur after the wetland mitigation bank has been developed. Therefore, construction on these parcels has the potential to indirectly impact sensitive resources. Indirect impacts could include fugitive dust, invasive plant species, or pollutants. This would be a significant impact. MM BR-1 would require biological resource protection measures be implemented during construction and MM BR-7 would require biological resource protection measures to be implemented during operations. Implementation of MM BR-1 and MM BR-7 would reduce impacts on sensitive natural communities to less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

MM BR-1 Implement Biological Resource Protection Measures During Construction.

MM BR-3 Restoration of Temporary Impacts.

MM BR-9 Berm Breach Site – Pre- and Post-Construction Eelgrass Surveys. Eelgrass (*Zostera* spp.) surveys, consistent with the requirements outlined in the 2014 California Eelgrass Mitigation Policy, shall be conducted to detect any impacts on eelgrass as a result of breaching the berm to open the Bank Site to tidal influence. Surveys shall be conducted prior to breaching the berm. If the pre-construction survey shows no eelgrass is present, no post construction survey and no further surveys or mitigation shall be required. If eelgrass is present a post-construction survey shall be conducted within 30 days following completion of breach construction. If impacts on eelgrass from implementation of the proposed project are identified, mitigation for eelgrass impacts shall be at a ratio of no less than 1.2:1, as required by the California Eelgrass Mitigation Policy. 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 if feasible.

MM BR-10 Compensatory Mitigation for Impacts on WOUS, CCC Wetland, and CDFW-Regulated Streambed. Should the project result in a loss of WOUS, CCC wetland, or CDFW-regulated streambed, the District shall provide compensatory mitigation for the loss of regulated waters or streambed at a minimum 1:1 ratio. Compensatory mitigation would consist of establishment to ensure no loss of aquatic function.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM BR-1 Implement Biological Resource Protection Measures During Construction.

MM BR-7 Implement Biological Resource Protection Measures During Operations for Parcels A, B, and C.

Significance after Mitigation

For both the project-level and program-level components, MM BR-1 would be required. Implementation of MM BR-1 would require implementation of biological resource protection measures during construction, which would reduce impacts on special status plants and wildlife by requiring a range of measures, such as WEAP training and requiring vegetation removal occur outside of bird nesting season.

For the project-level wetland mitigation bank, MM BR-3, MM BR-9, and MM BR-10 would be required. Implementation of MM BR-3 would require restoration of temporary impacts, which would restore suitable habitat. Implementation of MM BR-9 would require preconstruction eelgrass surveys to determine presence, and if eelgrass is present, then mitigation as required by the California Eelgrass Mitigation Policy would occur. Implementation of MM BR-10 would require compensatory mitigation for impacts on WOUS, CCC wetlands, and CDFW-regulated streambed, which would ensure no loss of aquatic function. For the program-level future commercial development, MM BR-7 would be required. MM BR-7 would require biological resource protection measures to be implemented during operations.

Implementation of MM BR-1, MM BR-3, MM BR-7, MM BR-9, and MM BR-10 would reduce impacts on sensitive resources as a result of the proposed project to less than significant.

Threshold (c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Project Level – Wetland Mitigation Bank

CONSTRUCTION

No WOUS, WOS, CDFW-regulated streambeds, or CCC wetlands occur within the berms of Pond 20, and therefore, the Bank Site. However, the breach site contains WOUS, WOS, CDFW-regulated streambeds, and CCC wetlands. All of which could be considered ESHA by the CCC.

As discussed in Section 3.3.2, WOS regulated by RWQCB are defined as equivalent to WOUS regulated by ACOE. The berm breach site is 0.33 acre and, as depicted on Figure 3.3-2 and Figure 3.3-3, the berm breach site contains the existing Pond 20 berm and the Otay River Tributary. The Otay River Tributary and its associated vegetated banks make up 0.19 acre and contains WOUS, WOS, CDFW-regulated streambeds, or CCC wetlands. The berm breach would temporarily impact 0.19 acre of WOUS, including 0.16 acre of wetland WOUS associated with Otay River Tributary. The berm breach would temporarily impact 0.19 acre of potential CDFW-regulated streambed, including 0.15 acre of riparian habitat associated with the Otay River Tributary. The berm breach would temporarily impact 0.19 acre of CCC wetland.

Additionally, if Parcel C is used as a staging area, the temporary span over Nestor Creek could result in temporary impacts of WOUS, including wetlands, potential CDFW-regulated streambed, including riparian habitat, and CCC wetland.

Indirect impacts on the quality of downstream wetland and non-wetland WOUS, potential CDFW-regulated streambed, and CCC wetland may occur during construction (i.e., sedimentation, fuel leaks, etc.) of the berm breach area. After compliance with the CWA (i.e., General Construction Permit, see Section 3.9, Hydrology and Water Quality for details), indirect impacts on downstream WOUS, CDFW-regulated streambed, or CCC wetland are not anticipated.

A direct impact on wetland WOUS, CDFW-regulated streambed, or CCC wetland or degradation of downstream water quality would be a significant impact. MM BR-1 would require biological resource protection measures be implemented during construction, MM BR-3 would require restoration of temporary impacts, and MM BR-10 would require compensatory mitigation for impacts on WOUS, CCC wetland, and CDFW-regulated streambed. Implementation of MM BR-1, MM BR-3, and MM BR-10 would reduce impacts to less than significant.

OPERATION

During operation of the wetland mitigation bank, maintenance activities have the potential to introduce invasive species that could degrade habitat quality or introduce pollutants to the project site and San Diego Bay through the use of herbicides. This would be considered a significant impact. MM BR-6 would require a long-term operations maintenance and management plan be implemented. Implementation of MM BR-6 would reduce impacts to less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. Similar to the discussion under the Project Level - Wetland Mitigation Bank section above, construction of future commercial development would involve vegetation clearing, excavation, and grading.

As discussed in Section 3.3.2, WOS regulated by RWQCB are defined as equivalent to WOUS regulated by ACOE. Parcel A supports 0.57 acre of WOUS, of which 0.35 acre consists of wetland. As depicted on Figure 3.3-2, WOUS on Parcel A are associated with the unnamed tributary on Parcel A and the Otay River Tributary. Parcel C supports 0.11 acre of WOUS, of which 0.08 acre consists of wetland. As depicted on Figure 3.3-2, WOUS on Parcel C are associated with Nestor Creek.

Parcels A supports 1.08 acre of potential CDFW-regulated streambed, of which 0.85 acre consists of riparian vegetation. As depicted on Figure 3.3-3, potential CDFW-regulated streambed are associated with the unnamed tributary on Parcel A and the Otay River Tributary. Parcel C supports 0.11 acre of potential CDFW-regulated streambed, of which 0.09 acre consists of riparian. As depicted on Figure 3.3-3, potential CDFW-regulated streambed on Parcel C are associated with Nestor Creek.

Parcel A supports 1.08 acre of CCC wetland. As depicted on Figure 3.3-3, CCC wetlands are associated with the unnamed tributary on Parcel A and the Otay River Tributary. Parcel C supports 0.11 acre of CCC wetland. As depicted on Figure 3.3-3, CCC wetlands on Parcel C are associated with Nestor Creek.

Direct and indirect impacts on Figure 3.3-2 WOUS, CDFW-regulated streambed, and CCC wetland would be significant. MM BR-1 would require biological resource protection measures be implemented during construction, MM BR-3 would require restoration of temporary impacts, MM BR-7 would require biological resource protection measures to be implemented during operations, and MM BR-10 would require compensatory mitigation for impacts on WOUS, CCC wetland, and CDFW-regulated streambed. Implementation of MM BR-1, MM BR-3, MM BR-7, and MM BR-10 would reduce impacts to less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

- MM BR-1 Implement Biological Resource Protection Measures During Construction.**
- MM BR-3 Restoration of Temporary Impacts.**
- MM BR-6 Implement Long-Term Operations Maintenance and Management Plan.**
- MM BR-10 Compensatory Mitigation for Impacts on WOUS, CCC Wetland, and CDFW-Regulated Streambed.**

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

- MM BR-1 Implement Biological Resource Protection Measures During Construction.**
- MM BR-3 Restoration of Temporary Impacts.**
- MM BR-7 Implement Biological Resource Protection Measures During Operations for Parcels A, B, and C.**
- MM BR-10 Compensatory Mitigation for Impacts on WOUS, CCC Wetland, and CDFW-Regulated Streambed.**

Significance after Mitigation

For both the project-level and program-level components, MM BR-1, MM BR-3, and MM BR-10 would be required. Implementation of MM BR-1 would require implementation of biological resource protection measures during construction, which would reduce impacts on special status plants and wildlife by requiring a range of measures, such as WEAP training and requiring vegetation removal to occur outside of bird nesting season. Implementation of MM BR-3 would require restoration of temporary impacts, which would restore suitable habitat. Implementation of MM BR-10 would require compensatory mitigation for impacts on WOUS, CCC wetlands, and CDFW-regulated streambed, which would ensure no loss of aquatic function.

For the project-level wetland mitigation bank, MM BR-6 would be required. Implementation of MM BR-6 would require a long-term operations maintenance and management plan for the mitigation bank to minimize the introduction of invasive species. For the program-level future commercial development, MM BR-7 would be required. Implementation of MM BR-7 would require biological resource protection measures to be implemented during operations.

Implementation of MM BR-1, MM BR-3, MM BR-6, MM BR-7, and MM BR-10 would reduce impacts on jurisdictional wetland resources as a result of the proposed project to less than significant.

Threshold (d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.

Project Level – Wetland Mitigation Bank

The Bank Site provides habitats for roosting, foraging, and nesting for many of the resident and migratory birds which utilize the San Diego Bay and its surroundings. The restored areas and brine flats within the saltworks and other wetlands adjacent to the project site provide migratory stopover value and spring/summer nesting and roosting habitat. As a result of the project, temporary impacts

would occur within the study area during the vegetation clearing, excavation, grading, and soil export activities that would establish appropriate topographical conditions and tidal flows to support target marsh-plain elevations. Ultimately, the proposed project would create a self-sustaining marsh habitat matrix, establishing a network of tidal channels to facilitate distribution of tidal flows to achieve inundation frequencies required by tidal open water, mudflat, and wetland habitats. The proposed project would increase the acreage of suitable roosting, foraging, and nesting habitat for resident and migratory birds within the area. The temporary loss of migratory stopover habitat is relatively small compared with the stopover habitat available at San Diego Bay (over 11,000 acres) and along the Southern California coastline. Therefore, the temporary loss would be a less than significant impact.

Program Level – Parcels A, B, and C Port Master Plan Amendment

Parcels A, B, and C support undeveloped land adjacent to the Bank Parcel, which provides live-in habitat for resident and migrating avian species along the coastal corridor. Future commercial development of Parcels A, B, and C may permanently impact available habitat, thereby reducing the overall acreage of roosting, nesting, and foraging areas within the coastal corridor for avian species. However, the loss of migratory stopover habitat is relatively small compared with the stopover habitat available at San Diego Bay (over 11,000 acres) and along the Southern California coastline. Therefore, the permanent loss of up to 1.2 acre of wetland habitat and 10.3 acres of upland habitat would be a less than significant impact.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

3.4 Cultural Resources

3.4.1 Overview

This section describes the existing cultural setting and applicable laws, regulations, and policies associated with cultural resources, as well as an analysis of the potential effects resulting from implementation of the proposed project. Information contained in this section is summarized from the Cultural Resource Technical Report (Appendix F).

TCRs are discussed in Section 3.14, Tribal Cultural Resources.

3.4.2 Historic and Cultural Background Summary

In-depth cultural and historic contexts have been completed for the project site and are included in the Cultural Resource Technical Report (Appendix F). To provide context of the cultural resource richness and high sensitivity of the area, this summary briefly describes the ethnography and different time periods for the project vicinity. The resource study area has a complex cultural background that begins with Native American occupation and use of the area going back at least 10,000 years.

Cultural Setting

Early assemblages, often described as the San Dieguito complex, date from roughly 10,000 to 7000 BP. San Dieguito was defined from sites throughout San Diego County, especially those in the San Dieguito Valley. Cultural practices commonly ascribed to Archaic-period human inhabitants along the coast—including shellfish gathering, seed processing, and reliance on small game hunting—seem to have been in place relatively early in the prehistoric period in this area. Research has demonstrated that many of California's early human occupation sites are located in coastal contexts where habitation is thought to have been concentrated around the many highly productive lagoons and estuaries formed by the flooding of coastal stream channels (Jones 1991). This settlement pattern suggests that coastal resources offered relatively high foraging efficiency at that time and were extensively used.

The archaeological record of the Late Prehistoric period is considered to be represented by the San Luis Rey complex in northern San Diego County and the Cuyamaca complex in the south. The San Luis Rey complex is the archaeological manifestation of the ethnohistoric Payómkawichum or Luiseño, whereas the Cuyamaca complex represents the Kumeyaay or Diegueño. Agua Hedionda Lagoon roughly marks the separation between these two territories.

The common use of ceramics and the replacement of inhumations with cremations are interpreted as characteristic of the San Luis Rey Complex during the Late Prehistoric period. The San Luis Rey Complex was originally defined (Meighan 1954) and divided into two phases: San Luis Rey I (AD 1400 to 1750) and II (AD 1750 to 1850). Assemblages associated with these phases were considered to be quite similar, the principal differences being the presence of ceramics, steatite arrow shaft straighteners, and European-American objects in San Luis Rey II assemblages.

The Cuyamaca complex is marked by the appearance of ceramics and small Cottonwood Triangular, Desert Side-Notched, and Dos Cabezas Serrated projectile points. It is similar to San Luis Rey, with the exceptions of defined cemeteries (True 1970), cremations placed in urns, side-notched projectile points, and a much greater emphasis on the use of scrapers, scraper planes, ceramics, and millingstone elements (Moratto 1984; True 1970).

Ethnography

The project site falls within the ethnographic boundaries of the Kumeyaay territory; however, the area may also have cultural significance or ties to the Payómkawichum. Background on both of these Native American groups is provided below.

Kumeyaay

Kumeyaay is a native term referring to all Yuman-speaking peoples living in the region from the San Dieguito River, south to the Sierra Juarez in Baja California, and roughly west of the present-day Salton Sea. Prior to European contact, Kumeyaay territory may have extended as far north as the San Luis Rey River. Linguistic and archaeological evidence suggest that the ancestors of the present-day Kumeyaay arrived in Southern California sometime between 1000 BC and AD 1000 (Moratto 1984).

The Kumeyaay were organized sociopolitically into autonomous bands, each controlling an area of approximately 10 to 30 miles around water sources, typically perennial drainages or occasionally springs (Shipek 1982). Many households would constitute a village or *ranchería*, and several villages were part of a larger social system usually referred to as a consanguineal kin group called a *cimuL*.

Territorial divisions among Kumeyaay residential communities were normally set by the circuit of moves between villages by *cimuL* in search of food. As Spier (1923) noted, the entire territory was not occupied at one time, but rather the communities moved between resources in such a manner that, in the course of a year, all of the recognized settlements may have been occupied. While a *cimuL* could own, or more correctly control, a tract of land with prescribed rights, no one from another *cimuL* was denied access to the resources of nature (Luomala 1963; Spier 1923); since no individual owned the resources, they were to be shared.

The complexity of Kumeyaay residential structures varied according to locality and need. In summer camps, for instance, a windbreak or rock shelter might be sufficient protection from the elements. In winter, more substantial structures were needed, in which case the Kumeyaay built a thatch-covered dome or gable house. Leadership of each band was invested in a clan chief and at least one assistant. Positions were generally inherited; however, a chief could be selected by consensus. Chiefs typically derived their authority through strength of personality and social skills rather than by force, as they had no substantive powers.

The Kumeyaay practiced a hunting and gathering subsistence regime based on a variety of locally abundant terrestrial and aquatic resources. The Kumeyaay diet was heavily dependent on harvesting wild plant foods, with a strong emphasis on acorns and piñon. The inhabitants of the coastal zone had access to rich marine environments, which provided abundant shellfish, fish, sea birds, and marine mammals.

Interaction with neighboring tribes was maintained through extensive trade networks. The San Diego-area Kumeyaay appear to have maintained stronger trade relationships with their neighbors to the east than with groups to the north and south, as evidenced by a lively trade between the seacoast and inland areas as far east as the Colorado River (Luomala 1978).

Contact between the Kumeyaay and Europeans began in 1542 when Juan Rodríguez Cabrillo landed the first Spanish expedition in San Diego. Sustained cultural interaction did not develop until the founding of Misión San Diego de Alcalá in 1769. Although the Kumeyaay culture was not as severely impacted by Spanish colonization as some California tribes, its sociopolitical structure was drastically disrupted during the Mission period and later. Kumeyaay people living nearest to the mission were affected strongly by European civilization, whereas groups living in the mountains were less traumatized by cultural interaction with European settlers and maintained a traditional lifeway.

By the end of the nineteenth century, most Kumeyaay were disenfranchised from their lands and relegated to reservations. Occasionally, the Kumeyaay acculturated into Euro-American society in rural areas, or at the edges of small towns, on land that immigrants did not want. Throughout the twentieth century, the Kumeyaay have struggled and worked toward maintaining their autonomy and sovereignty. Today their culture is thriving, and the Kumeyaay are represented by federally recognized tribes with reservations throughout San Diego County. At present, about 20,000 Kumeyaay descendants live in San Diego County, with approximately 10 percent of the total population living on 18 established Kumeyaay reservations.

Payómkawichum

The name Luiseño was given to the Takic-speaking Payómkawichum people associated with the mission established in the region, Misión San Luis Rey de Francia. The Luiseño language belongs to the Cupan group of the Takic subfamily. The Luiseño territory occupied the region west of Mount San Jacinto, with the Juaneño, Gabrielino, and Serrano to the north, Cahuilla to the east, and Kumeyaay to the south (Bean and Shipek 1978; Kroeber 1925). Their territory included Palomar Mountain, as well as most of the San Luis Rey River and Santa Margarita River drainages. Thus, their habitat included ocean, inlets, marshes, interior valleys, oak groves, and pine and cedar forest in the mountains.

The material culture of the Payómkawichum is very similar to that of their neighbors. Bow and arrow were of the typical California type, with fire-hardened wood and stone-tipped arrows (Bean and Shipek 1978; Kroeber 1925). Pottery and basketry were nearly identical to those of their neighbors. The grinding or pounding of seeds and acorns was done with handstones on shallow unshaped metates, mortars and pestles, and bedrock mortars (Bean and Shipek 1978).

Sedentary and autonomous villages were located throughout the Payómkawichum territory. Each village area contained named places associated with food, raw materials, or sacred beings, each owned by an individual, family, the chief, or the group as a whole (Bean and Shipek 1978). Certain animals were not eaten by the Payómkawichum, including dog, coyote, bear, tree squirrel, and turtles. The more permanent housing for the Payómkawichum was a semi-subterranean conical earth-covered structure dug approximately 2 feet into the ground. The sweat house was made of similar construction but in an elliptical shape. The *wamkish*, or temple, was a round, unroofed fence of brush with an opening to the north. The religious ceremonies performed here were of two classes: initiations and mourning rites.

Payómkawichum society was split into patrilineal family groups; these were organized into ceremonial groups. The patrilineal family groups could be described as clans, and children were required to marry outside both their father's and mother's clan. There were an estimated 80 clans, each comprising approximately 25 to 30 people. There was also a subdivision of religious groups, or parties, consisting of a chief, his clan, and possibly members of other chief-less clans (Kroeber 1925).

History

Spanish Period (AD 1769–1822)

The first recorded exploration of what is now known as San Diego Bay was conducted in 1542 by Portuguese explorer Juan Rodríguez Cabrillo, sailing under the Spanish flag. In 1602, 60 years later, Sebastián Vizcaíno sailed into what is now known as San Diego Bay. In spite of these earlier explorations, the Spanish colonization of Alta California did not begin until 1769. Spanish settlement was accomplished through the establishment and cooperative inter-relationship of three institutions: the Presidio, Mission, and Pueblo.

In 1769, a land expedition led by Gaspar de Portolá reached San Diego Bay, where it met those who had survived the trip by sea on the San Antonio and the San Carlos. Initially, camp was made on the shore of the bay in the area that is now downtown San Diego. Lack of water at this location led to moving the camp on May 14, 1769, to a small hill closer to the San Diego River and near the Kumeyaay village of Cosoy. Father Junípero Serra arrived in July of the same year to find the Presidio serving mostly as a hospital. The Spanish built a primitive mission and presidio structure on the hill near the river. Tensions soon developed between the native Kumeyaay and the soldiers, resulting in construction of a stockade. By 1772 the stockade included barracks for the soldiers, a storehouse for supplies, and a house for the missionaries and the chapel, which had been improved.

In August 1774, the Spanish missionaries moved the Misión San Diego de Alcalá to its present location, 6 miles up the San Diego River valley (modern Mission Valley), near the Kumeyaay village of Nipaguay. The new Mission was sacked and burned in the Kumeyaay uprising of November 5, 1775, in which 15 villages participated. The first adobe chapel was completed in October 1776, and the present church was built the following year. In the 1770s, the southern portion of San Diego Bay, including the project site, was part of La Purísima Concepción, a grazing area for Mission herds. In 1795, the area was taken from the Mission by soldiers at the San Diego Presidio and renamed El Rancho del Rey. The land was then used to graze the horses and cattle for the presidio garrison.

San Diego Bay was first mapped by Juan Pantoja y Arriola in 1782. On his map, titled *Plano del Puerto de San Diego*, the general location of the project site is along the eastern edge of a marshy floodplain at the southeastern extent of San Diego Bay. Two unnamed watercourses are depicted in the vicinity: *Estero de agua salada* (salt-water estuary) and *Río de agua dulce* (fresh-water river). The former likely corresponds to Otay River and the latter to Nestor Creek. Between the two drainages is a Native American village labeled *Ranchería de Indios, que llaman de la Punta* (Indian ranchería, which they call of the point [i.e., the headland]). In a 1786 revision of the map, Nestor Creek and the nearby village are labeled *Río y Ranchería de la Punta*. The village of La Punta is also referenced in historical records, notably by Lt. Francisco Ortega, who listed it as one of the 15 Native American villages that contributed members to the San Diego Mission uprising of 1775 (Carrico 1983).

The mission system had a great effect on all Native American groups from the coast to the inland areas and was a dominant force in San Diego County. Life for the new settlers at the San Diego Presidio was isolated and difficult. The arid desert climate and aggressive Native American population made life hard for the Spanish settlers. They raised cattle and sheep, gathered fish and seafood, and did some subsistence farming in the San Diego River valley to generate enough food to keep the fledgling community of a few hundred Spaniards and hundreds of Native American neophytes alive.

Mexican Period (AD 1822–1846)

In 1822, Mexico won its independence from Spain, and San Diego became part of the Mexican Republic. The Mexican government opened California to foreign ships, and a healthy trade soon developed, exchanging the fine California cattle hides for the manufactured goods of Europe and the eastern U.S. Several of these American trading companies erected rough sawn woodplank sheds at La Playa, on the bay side of Point Loma. The merchants used these hide-houses for storing the hides before transport to the east coast (Smythe 1908). As the hide trade grew, so did the need for more grazing lands. Thus, the Mexican government began issuing private land grants in the early 1820s, creating the rancho system of large agricultural estates. Much of the land came from the Spanish missions, which the Mexican government secularized in 1833. The mission system, however, had begun to decline when the Mission Indians became eligible for Mexican citizenship and refused to work in the mission fields. The ranchos dominated California life until the U.S. takeover in 1846 (Smythe 1908; Pourade 1963). The Mexican Period brought about the continued displacement and acculturation of the native populations.

The new Pueblo of San Diego did not prosper as some other California towns did during the Mexican Period. In 1834, the Mexican government secularized the San Diego and San Luis Rey missions. The secularization in San Diego County had the adverse effect of triggering increased Native American hostilities against the Californios during the late 1830s. The attacks on outlying ranchos, along with unstable political and economic factors helped San Diego's population decline to around 150 permanent residents by 1840. San Diego's official Pueblo status was removed by 1838, and it was made a sub prefecture of the Los Angeles Pueblo. When the Americans took over after 1846, the situation had stabilized somewhat, and the population increased to roughly 350 non-Native American residents (Hughes 1975).

American Period (AD 1846–present)

When U.S. military forces occupied San Diego in July 1846, the town's residents split on their course of action. Many of the town's leaders sided with the Americans, while other prominent families opposed the U.S. invasion. A group of Californios under Andres Pico, the brother of the Governor Pio Pico, harassed the occupying forces in Los Angeles and San Diego during 1846. In December 1846, Pico's Californios engaged U.S. Army forces under General Stephen Kearney at the Battle of San Pasqual and inflicted many casualties. However, the Californios resistance was defeated in two small battles near Los Angeles and effectively ended by January 1847 (Pourade 1963).

In 1848, Mexico ceded California to the U.S. Under the provisions of the Treaty of Guadalupe Hidalgo, residents of California were guaranteed property rights to land held in accordance with Mexican law; however, acquiring title to these lands was difficult. In 1851, the U.S. Congress established procedures that would assist individuals in gaining clear title (a patent) to these lands. In 1868, the 6 miles of bayfront in the vicinity of what is now National City was purchased.

Development of National City began slowly. Between 1869 and 1873, the road connecting National City to the border was improved, a post office was established, and a wharf was constructed along the bayfront. Following a financial crash in 1873, which ended the current hopes for a railroad boom, efforts turned to agriculture. Much of the area was used to raise sheep; grow wheat; and cultivate oranges, lemons, grapes, and olives.

In 1885, the vision of a railroad line connecting National City to other parts of California and beyond was realized with the completion of a line between National City and San Bernardino. This was followed by the incorporation of National City in 1887. During that same year, the San Diego Land and

Town Company, the syndicate controlled by the Santa Fe Railroad, began construction of the Sweetwater Dam to promote land sales in National City and Chula Vista.

The Coronado Belt Line was completed in 1888. This railroad provided service from 5th and L Streets in San Diego, through National City and Chula Vista around the south end of the San Diego Bay, and up the Silver Strand to Coronado. The railroad was built as part of the Coronado Beach development. The railroad was used to transport freight and passengers to and from Coronado. Regular passenger service on this line ended in 1896, but special excursion trains continued to operate for several years thereafter. In addition to the community and agricultural development occurring in the mid to late 1800s in the vicinity of the project site, industrial development was also occurring.

The history of solar salt production in the South Bay began in 1871 with development of La Punta Salt Works. This small-scale salt production facility was initially constructed on approximately 60 acres in the extreme southeast corner of San Diego Bay. This facility subsequently closed, and in 1902, Graham Babcock established the WSC approximately 0.25 mile northeast of the extant La Punta Salt Works. In 1911, when E. S. Babcock took over the WSC operation, he began purchasing much of the land along the south end of San Diego Bay to expand the facility. As the facility expanded, the historic salt marsh and intertidal mudflats were eliminated by the construction of diked evaporation ponds. By 1916, the facility extended across the entire end of the South Bay. A major flood severely damaged the facility in early 1916, but reconstruction began immediately and continued through 1918. The Bank Parcel portion of the project site was at one time part of the evaporative salt pond system operated by the WSC.

In 1922, the salt works facility was purchased by H.G. Fenton and remained under the ownership of the H.G. Fenton Company until the majority of the salt works was purchased by the District and transferred to the California State Lands Commission to create the South San Diego Bay Unit of the San Diego Bay NWR in 1999. The salt ponds, now operated by South Bay Salt Works, continue to produce salt through solar evaporation under a Special Use Permit issued by USFWS. In 2011, the salt production operation was downsized when the western salt ponds were taken out of operation and restored to tidally influenced coastal wetlands.

3.4.3 Existing Conditions

Methodology

Pre-Field Research

On April 12, 2018, a Spindrift Archaeologist/Paleoanthropologist conducted a record search at the California Historical Resources Information System South Coast Information Center (SCIC), housed at San Diego State University. The purpose of the record search was to determine the extent of previous surveys of the project site and to identify previously documented prehistoric or historic archaeological sites, built environment resources, or traditional cultural properties within the project site and a 1-mile radius around the site.

In addition to the official records and maps for archaeological sites and surveys in San Diego County, the following historic references were also reviewed:

- Historic Property Data File for San Diego County
- National Register Information System website (National Park Service 2020)
- California Historical Landmarks (Office of Historic Preservation [OHP] 1996, 2017)

- California Points of Historical Interest (OHP 1992)

Field Survey

The methods used during the field survey were consistent with the Secretary of the Interior's Standards and Guidelines for Identification and Evaluation, "Guidelines for Local Surveys" (Parker et al. 1985).

On April 16 and 20, 2018, a Spindrift Archaeologist/Paleoanthropologist and a Red Tail Monitoring & Research, Inc. Tribal Consultant surveyed the project site using transects spaced 5 to 10 meters apart. The survey began at the southeastern corner of the project site, with transects oriented in an east-west alignment, and ended at the southwestern corner of the project site. The ground visibility was fair to poor. Vegetation was occasionally dense throughout the survey. Notes were taken on the environmental setting and disturbances within the project site. The project site was mapped into a handheld Garmin eTrex Legend C global positioning system (GPS) unit with 5-meter horizontal accuracy. This GPS unit was also used to update the boundaries of previously identified cultural sites encountered during survey. The general morphological characteristics of the ground surface were inspected for indications of subsurface deposits. Whenever possible, the locations of subsurface exposures caused by factors such as rodent activity, water or soil erosion, or vegetation disturbances were examined for artifacts or for indications of buried deposits. No subsurface investigations or artifact collections were undertaken during Spindrift's pedestrian survey.

On September 23 and October 8, 2019, HDR archaeologists conducted a cultural resource survey of the project site in order to verify and refine the results of Spindrift's survey due to apparent inconsistencies in recordation. HDR archaeologists surveyed the project site in linear transects with 5- to 10-meter spacing depending on terrain and visibility. Ground visibility ranged from 0 to 100 percent, with an average of approximately 80 percent. Previously recorded cultural resources within the project site were revisited using locational data from the record search and the results of Spindrift's previous survey. New and relocated artifacts and features were marked with pin flags, recorded with a Trimble GeoXT handheld GPS unit with submeter horizontal accuracy, and photographed with a digital camera.

Site Recordation and Evaluation

Cultural resources identified during the survey were documented on standard California Department of Parks and Recreation 523 series forms, based on OHP guidelines. Previously recorded sites were reexamined and compared with existing documentation. In cases where sites had not changed substantially, a site record continuation sheet was prepared. If the examination revealed the site to be substantially different from its original description, new Department of Parks and Recreation forms were prepared and submitted to SCIC.

Existing determinations of eligibility were examined for adequacy. Sites with official or adequate field determinations of eligibility were not reevaluated. Unevaluated and newly recorded sites were evaluated using the National Register of Historic Properties (NRHP) and California Register of Historical Resources (CRHR) criteria and integrity considerations outlined in Section 3.4.4.

Results of Cultural Resource Identification

CA-SDI-4360 (P-37-004360)

Archaeological site CA-SDI-4360 is a prehistoric habitation camp containing intact marine shell midden deposits and hearth features. The recorded site boundary extends over 53 acres on a Pleistocene-age marine terrace at the south end of San Diego Bay. Cultural materials recorded on the surface include lithic debitage, flaked stone tools, groundstone, and fire-affected rock. Lithic materials include felsite (i.e., Santiago Peak metavolcanic), andesite, and rhyolite, along with quartzite for the groundstone tools. Marine shell species observed include *Tivela* sp. (Pismo clam), *Chione* sp. (California venus clam), *Pecten* sp. (scallop), *Mytilus* sp. (mussel), *Ostrea* sp. (oyster), and *Astraea* sp. (wavy turban snail).

A substantial portion of site CA-SDI-4360 is covered by modern development. Portions of site CA-SDI-4360 have been tested or mitigated through data recovery, revealing two separate and distinct prehistoric activity areas. The southeastern portion of the site has been interpreted as a fishing and maritime encampment occupied on a regular basis during the Archaic and possibly Paleoindian period (radiocarbon dates range from 6100 to 4600 BP), whereas the northwestern portion was occupied in the more recent past, until about 1110 BP. Cultural materials recovered during previous excavations include debitage, flaked stone artifacts, marine shell, groundstone, faunal bones, one non-human bone artifact, one human bone fragment, and historic material.

FHWA determined site CA-SDI-4360 to be eligible for listing in the NRHP under Criterion D; the State Historic Preservation Officer (SHPO) concurred with this determination on May 28, 2002. The site is also listed in the CRHR and constitutes a historical resource under CEQA.

The recorded boundary of site CA-SDI-4360 extends into the western portion of the project site. Cultural materials were recorded on the surface in Parcel A and on top of the Pond 20 berm across the Otay River Tributary from Parcel A. The presence of artifacts on the berm suggests the existence of potentially intact subsurface deposits from which these artifacts would have been removed during construction of the levee and dredging of the Otay River Tributary canal for maintenance.

Western Salt Company Salt Works District (P-37-026582)

The WSC Salt Works District includes the historic evaporation, condensation, and crystallization ponds and levees that, during the period of operation, covered much of the southern edge of San Diego Bay, as well as related buildings and facilities. The salt works began operating in 1871, and is the only salt works still operating in San Diego County.

The WSC Salt Works District was determined eligible for listing in the NRHP in 2001 under Criteria A and C. SHPO concurred with this determination on May 28, 2002. The district is also listed in the CRHR and is a City of San Diego Designated Historical Resource Site.

Pond 20 is a contributing element of the WSC Salt Works District and encompasses the entirety of the Bank Site. Pond 20 is separated from the rest of the ponds to the northwest by the Coronado Belt Line and the Otay River channel. Because it was considered too costly to maintain the siphoning equipment necessary to operate the pond, salt production operations in Pond 20 ceased in the 1960s. The pond extends north from Palm Avenue and measures approximately 3,000 feet north/south by 2,500 feet east/west, at its maximum extent. The perimeter berm that surrounds it on three sides is approximately 1.3 mile long, 40 feet wide, and 3 to 6 feet high. The southern side of the pond is delimited by a cutbank that is approximately 6 feet high. A low berm and a channel running roughly east/west separate the pond into two parts. Aerial imagery of Pond 20 from 1936, during the period approaching the height of

salt productivity, indicates that the principal area of historical use was the southern part of Pond 20. It is uncertain to what degree the northern part was modified for use in the salt works.

The boundary of the WSC Salt Works District within the project site is limited to the Bank Site, including the berms surrounding Pond 20, and does not include the Otay River Tributary, Nestor Creek, or Parcels A, B, or C.

CA-SDI-19712 (P-37-031061)

Archaeological Site CA-SDI-19712 is a large prehistoric shellfish processing camp, possible habitation site, and artifact scatter that extends over approximately 67 acres in the eastern and central portions of the project site. The site encompasses two locations that had been previously recorded as CA-SDI-20687 and CA-SDI-21090. Cultural materials observed on the site surface include 6 apparently intact marine shell midden areas, some of which are associated with potential hearths, more than 1,000 pieces of debitage, 50 flaked-stone tools, 18 cores, 30 Tizón Brownware ceramic sherds, 8 hammerstones, 4 groundstone fragments, and a scatter of marine shell from most genera found in southern San Diego County. Most of these cultural materials are found in four concentrations, designated as Loci A through D.

Substantial disturbance, mostly from construction of Pond 20 as an evaporation pond, is present throughout CA-SDI-19712. However, it is unclear to what degree individual portions of the site were affected by construction of the salt pond and related activities. Test excavations in the northern portion of the site recovered 75 pieces of debitage, 2 hammerstones, 15 ceramic fragments, 13 pieces of fire-affected rock, faunal remains, and 4 human bone fragments from subsurface contexts. As a result of these excavations, the northern portion of CA-SDI-19712, within NWR land, was recommended ineligible for listing in the NRHP due to lack of integrity of subsurface deposits, which were interpreted as the result of redeposition from fluvial processes.

Based on the findings of the surveys conducted by Spindrift and HDR for the current project—specifically, the substantial increase in the amount and variety of artifacts recorded and the identification of apparently intact shell midden deposits and possible hearths within the southern portion of the site—site CA-SDI-19712 is recommended eligible for listing in the NRHP. Due to the high potential of containing intact subsurface cultural deposits with significant scientific data potential, CA-SDI-19712 meets Criterion D of the NRHP and Criterion 4 of the CRHR and is recommended eligible for listing in both registers. Previous eligibility testing conducted by Dudek found that the portion of CA-SDI-19712 on NWR land lacked contextual integrity (Comeau et al. 2014), resulting in a determination of ineligibility for listing in the NRHP, with SHPO concurrence. The portion of CA-SDI-19712 on NWR land (including the northern half of Locus A and all of Locus B) is therefore considered not to contribute to the NRHP and CRHR eligibility of the site under Criteria D and 4, respectively.

Cultural deposits at CA-SDI-19712 are likely related to occupation of the Kumeyaay village of La Punta (Chiap or Chyap), whose location was recorded in the general vicinity by Spanish explorers in the late 18th century. Because of the association of this village with the Kumeyaay revolt of 1775 (Carrico 1997), an event that has made a significant contribution to the broad patterns of the history of the U.S. and California, CA-SDI-19712 also meets Criterion A of the NRHP and Criterion 1 of the CRHR and is recommended eligible for listing in both registers under these criteria.

The boundary of Archaeological Site CA-SDI-19712 extends into the eastern and central portions of the Bank Parcel, most of Parcel B, and the western and southern portion of Parcel C.

3.4.4 Applicable Laws, Regulations, and Policies

Federal

National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) (54 USC 306108), which is implemented by the Advisory Council on Historic Preservation's (ACHP) regulations, "Protection of Historic Properties," requires federal agencies to take into account the effects of their undertakings on historic properties and to afford the ACHP a reasonable opportunity to comment (36 CFR 800.1). A historic property is defined in the NHPA as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on the National Register, including artifacts, records, and material remains related to such a property or resource" (54 USC 300308).

If an undertaking has the potential to affect historic properties, the agency determines the scope of appropriate identification efforts and then proceeds to identify historic properties in the Area of Potential Effects by applying the NRHP criteria (36 CFR 800.4). If it is determined that there are any potential effects on a historic property, the agency, in consultation with SHPO, the Tribal Historic Preservation Officer, and "any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to identified historic properties," makes an assessment of adverse effects on the identified historic properties, based on criteria found in ACHP's regulations (36 CFR 800.5). If it is determined there are adverse effects, the agency consults with SHPO, the Tribal Historic Preservation Officer, and other consulting parties to resolve adverse effects through mitigation, and a memorandum of agreement outlining measures the agency will take to minimize adverse effects is executed and implemented (36 CFR 800.6). Federal agencies are encouraged to coordinate compliance with Section 106 of the NHPA and the procedures outlined above with any steps taken to meet the requirements of NEPA, as amended, for project undertakings (36 CFR 800.8).

National Register of Historic Places

The NRHP criteria are used to evaluate resources when complying with Section 106 of the NHPA. Those criteria state that cultural resources eligible for listing in the NRHP are those that meet any of the following:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history
- B. Are associated with the lives of persons significant in our past
- C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction
- D. Have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4)

In addition to meeting at least one of the above criteria, a cultural resource must also possess most, or all, of seven aspects of integrity to qualify for listing on the NRHP. Seven types of integrity are defined in National Register Bulletin 15 (National Park Service 1997):

1. Location is the place where the historic property was constructed, or the place where the historic event occurred

2. Design is the combination of elements that create the form, plan, space, structure, and style of a property
3. Setting is the physical environment of a historic property
4. Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property
5. Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory
6. Feeling is a property's expression of the aesthetic or historic sense of a particular period of time
7. Association is the direct link between an important historic event or person and a historic property

Historical integrity is measured by the degree to which the resource retains its historical attributes and conveys its historical character, the degree to which the original fabric has been retained, and the reversibility of changes to the property (King 2008).

National Environmental Policy Act

The Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500) require that federal agencies evaluate the environmental effects or impacts (the terms are used synonymously) of their actions before proceeding with a project. Direct, indirect, and cumulative effects of a proposed action are considered. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and occur later in time or are farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate (40 CFR 1508.8). Cumulative impacts on the environment result from "the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7).

If a proposed action has the potential to cause significant adverse impacts on the environment, including historic and cultural resources, then appropriate mitigation measures must be considered to avoid or minimize environmental harm (40 CFR 1505.2[c]). Mitigation may include:

- Avoiding the impact altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or
- Compensating for the impact by replacing or providing substitute resources or environments (40 CFR 1508.20).

State

California Environmental Quality Act

Pursuant to CEQA, it is necessary for the lead agency to determine whether a proposed project may have a significant effect on the environment [PRC 21082.2[a]]. CEQA associates a significant effect on the environment with a substantial adverse change in the significance of a historical resource (PRC 21084.1) or a tribal cultural resource (PRC 21084.2).

For the purposes of CEQA review, a historical resource is defined as follows (14 CCR 15064.5[a]):

1. A resource listed in, or determined eligible by the State Historical Resources Commission for listing in, the CRHR;
2. A resource included in a local register of historical resources;
3. A resource identified as significant in a historical resource survey meeting the requirements specified in PRC 5024.1(g); or
4. Any resource that the lead agency determines to be historically significant.

Generally, a lead agency shall consider a resource to be historically significant if the resource retains sufficient integrity and meets the criteria for listing in the CRHR (PRC 5024.1). These include the following criteria (14 CCR 4852[b]), which mirror the NRHP eligibility criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the U.S.;
2. It is associated with the lives of persons important to local, California, or national history;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Determining the integrity of a resource involves evaluating the authenticity of that resource's physical identity—that is, the survival of characteristics that were present during the resource's period of significance. In order to be listed on the CRHR, resources must “retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance” (14 CCR 4852[c]). Integrity is evaluated with regard to the retention of location, design setting, materials, workmanship, feeling, and association.

Any historical resource in California that is listed or determined eligible for listing on the NRHP is included in the CRHR (PRC 5024.1[d][1]). Under CRHR regulations, “it is possible that historical resources may not retain sufficient integrity to meet the criteria for listing in the NRHP, but they may still be eligible for listing in the California Register” (14 CCR 4852[c]). The CRHR also includes properties that are:

- Registered State Historical Landmarks numbered 770 and above;
- Points of Historical Interest that have been reviewed and recommended to the State Historical Resources Commission for listing; or
- City- and county-designated landmarks or districts, if the criteria for designation are determined by the OHP to be consistent with CRHR criteria.



A substantial adverse change in the significance of a historical resource includes “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired” (14 CCR 15064.5[b]). If the proposed project has the potential to cause a substantial adverse change in the significance of a historic resource, the lead agency shall identify potentially feasible measures to mitigate such change.

CEQA also applies to effects on archaeological sites that do not meet the criteria for historical resources but do meet the definition of a unique archeological resource (PRC 21083.2[g]). A unique archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological resource is neither a historical resource nor a unique archaeological resource, the project’s effects on the resource shall not be considered significant under CEQA (14 CCR 15064.5[c][4]).

California Coastal Act

The CCA of 1976 states that “where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required” (PRC 30244).

Treatment of Human Remains

Any project in California located on land that is not federally owned is required to comply with state laws pertaining to the inadvertent discovery of Native American human remains. California Health and Safety Code sections 7050.5, 7051, and 7054 address the illegality of interference with human burial remains, as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, as well as reburial procedures.

The Guidelines for Implementation of CEQA contain additional provisions regarding human remains (CCR 15064.5[d-e]). When an IS identifies the existence, or the probable likelihood, of Native American human remains within the project, a lead agency shall work with the appropriate Native Americans identified by the Native American Heritage Commission (NAHC), as provided in PRC 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, human remains and any items associated with Native American burials, with the appropriate Native Americans as identified by the NAHC. Action implementing such an agreement is exempt from:

1. The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5); and
2. The requirements of CEQA and the Coastal Act.

3.4.5 Environmental Impacts

This section presents the methodology applied for evaluation, significance criteria used for considering project impacts related to cultural resources, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level component includes a PMPA to incorporate Parcels A, B, and C into the PMP, which requires a land use designation be assigned. The parcels are proposed to be assigned a commercial recreation land use designation. At this time, no construction or operational activities are proposed on Parcels A, B, and C. The impact analysis below evaluates the reasonable scenario of commercial development on Parcels A, B, and C. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to a CDP and project approval, and any additional CEQA compliance.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to historical and cultural resources are considered significant if any of the following occur:

- a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5
- c) Disturb any human remains, including those interred outside of formal cemeteries

Impact Analysis

Threshold (a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.

Project Level – Wetland Mitigation Bank

The creation of the wetland mitigation bank may cause a substantial adverse change in the significance of the following historical resources:

ARCHAEOLOGICAL SITE CA-SDI-4360 (P-37-004360)

As discussed in Section 3.4.3, archeological site CA-SDI-4360 extends into the western portion of the project site, including Parcel A and a portion of the Bank Parcel, and numerous cultural materials were recorded on the surface within the project boundary. The site is eligible for listing in the NRHP under Criterion D, and the site is listed in the CRHR and constitutes a historical resource under CEQA. The excavation of the surface of the Bank Site, dredging of tidal channels, and subsequent breach of the berm may result in the destruction or alteration of potentially significant subsurface archaeological deposits within the limited portion of this resource that extends into the Bank Parcel. Section 15126.4(b)(3) of the CEQA Guidelines states that, whenever feasible, public agencies should “seek to avoid damaging effects on any historical resource of an archaeological nature.” In order to do so, the agency must consider the feasibility of preservation in place, which is the “preferred manner of mitigating impacts to archaeological sites.” If avoidance or preservation in place are not possible and “data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes

provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken.”

Avoidance and preservation in place of portions of archaeological site CA-SDI-4360 within the project site were considered at the project level but were determined not possible because the project could not be implemented. The boundary of CA-SDI-4360 extends across the berm breach site and the far western portion of the Bank Parcel. There is a high likelihood that potentially significant subsurface archaeological deposits may be present at unknown depths both within and beyond the recorded boundary of CA-SDI-4360. These deposits may be impacted by even the most limited amount of ground disturbance. Avoidance and preservation in place of potentially significant subsurface archaeological deposits associated with CA-SDI-4360 would not be possible because grading of the Bank Parcel, dredging of tidal channels, and subsequent connection to tidal flow are all essential project-level components of the proposed project. These are considered significant impacts.

MM CR-1 is proposed to identify significant subsurface archaeological deposits associated with known and unknown archaeological historical resources in the project site and recover the scientifically consequential information they contain. MM CR-1 would require preparation of a Cultural Resource Mitigation and Monitoring Plan (CRMMP) prior to commencement of ground-disturbing activities in the project site but no sooner than 90 percent design completion, in order to avoid unnecessary impacts on archaeological resources in areas that would not be affected by the project. The CRMMP would include a research design and plans for the following activities:

1. Archaeological testing to determine the presence and significance of subsurface deposits in the specific locations that would be impacted by the project;
2. Archaeological recovery, analysis, and curation of scientifically consequential information contained in these deposits;
3. Measures designed to minimize harm to portions of archaeological sites both within and outside the project’s limits of disturbance (e.g., worker training, archaeological monitoring, and delineation of work limits); and
4. Reporting and archiving of data recovered.

Upon implementation of MM CR-1, impacts on CA-SDI-4360 would be reduced to a less than significant level through the recovery of scientifically consequential information from and about this historical resource.

WESTERN SALT COMPANY SALT WORKS DISTRICT (P-37-026582)

As discussed in Section 3.4.3, the WSC Salt Works District is eligible for listing in the NRHP under Criteria A and C, is listed in the CRHR, and is a City of San Diego Designated Historical Resource Site. Pond 20 is a contributing element of the WSC Salt Works District and encompasses the entirety of the Bank Site. The excavation of the Bank Site, dredging of tidal channels, and subsequent breach of the berm would result in the destruction or alteration of the Pond 20 salt pond system, including the pond itself, the levee, and associated features. These are considered potentially significant impacts.

According to Section 15126.4(b)(1) of the CEQA Guidelines, if a project has been determined to conform with the Secretary of Interior's (SOI) Standards for the Treatment of Historic Properties, with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (Weeks and Grimmer 1995; Grimmer 2017), it can generally be considered that the project's impact on the historical resource has been mitigated below a level of significance. The SOI's Standards, which are codified in 36 CFR Part 68, offer four distinct approaches to the treatment of historic properties: preservation, rehabilitation, restoration, and reconstruction.

The application of the SOI's Standards for the Treatment of Historic Properties to the portion of the WSC Salt Works District within the project site was considered at the project level but was determined not possible because the project could not be implemented. Grading of the Bank Parcel, dredging of tidal channels, and subsequent connection to tidal flow are all essential project-level components of the proposed project. Therefore, on-site preservation, rehabilitation, restoration, or reconstruction of character-defining features of Pond 20 within the area delimited by the perimeter berm would not be possible. However, because the project does not propose to remove the existing berm and proposes work within the Bank Site, which is delimited by the perimeter berm, the overall shape of Pond 20 and portions of the levee would be preserved by the project. These characteristics would continue to convey the significance of Pond 20 as a contributing element of WSC Salt Works District. As discussed above, the project would make changes to the portion of Pond 20 encircled by the perimeter berm, including grading and dredging of tidal channels. These changes would result in the destruction of some of the internal features of Pond 20, such as secondary berms separating individual salt ponds and the remains of flumes and brine ditches, as well as modifying the topography of Pond 20 from existing conditions. However, the changes would not alter the overall character of Pond 20 from a relatively flat, open area surrounded by berms. The project also does not propose to develop or construct buildings or other structures that would significantly alter views of Pond 20 or its spatial relationship to the historical landscape of the WSC Salt Works District. Thus, although the project would introduce wetlands in place of existing salt flats, it would preserve a number of the significant characteristics of Pond 20 that make it a contributing element of WSC Salt Works District. Alteration of a contributing element to an historic resource would be a significant impact.

MM CR-2 is proposed to document Pond 20 prior to its alteration and to educate the public about the significance of the historical use of the salt works landscape. MM CR-2 would require: (1) additional historical research, field recordation, and photographic documentation of Pond 20 to Historic American Landscapes Survey (HALS) standards; (2) preparation of an educational display with interpretive panels that document the history of salt works operations and Pond 20; and (3) a website that provides an overview of the history of the WSC Salt Works.

Upon implementation of MM CR-2, and given the limited nature of construction and development of the proposed project in the context of Pond 20 and the larger WSC Salt Works District landscape, impacts on the WSC Salt Works District would be reduced to a less than significant level.

ARCHAEOLOGICAL SITE CA-SDI-19712 (P-37-031061)

The excavation of the Bank Parcel and dredging of tidal channels may result in the destruction or alteration of a potentially significant archaeological deposits within the portion of this resource that extends into the Bank Parcel. The use of Parcels B and C as staging areas may also impact surface deposits within areas of relatively low artifact density. These are considered significant impacts.



Section 15126.4(b)(3) of the CEQA Guidelines states that, whenever feasible, public agencies should “seek to avoid damaging effects on any historical resource of an archaeological nature.” In order to do so, the agency must consider the feasibility of preservation in place, which is the “preferred manner of mitigating impacts to archaeological sites.” If avoidance or preservation in place are not possible and “data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken.”

Avoidance and preservation in place of portions of archaeological site CA-SDI-19712 within the project site were considered at the project level but were determined not possible because the project could not be implemented. The boundary of CA-SDI-19712 extends across approximately 60 percent of the Bank Parcel and into Parcels B and C. There is a high likelihood that potentially significant subsurface archaeological deposits may be present at unknown depths both within and beyond the recorded boundary of CA-SDI-19712. These deposits may be impacted by even the most limited amount of ground disturbance. Avoidance and preservation in place of potentially significant subsurface archaeological deposits associated with CA-SDI-19712 would not be possible because grading of the Bank Parcel and dredging of tidal channels are essential project-level components of the proposed project.

MM CR-1 is proposed to identify significant subsurface archaeological deposits associated with known and unknown archaeological historical resources in the project site and recover the scientifically consequential information they contain. Upon implementation of MM CR-1, impacts on CA-SDI-19712 would be reduced to a less than significant level through the recovery of scientifically consequential information from and about this historical resource.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District, the result of which would include future ground-disturbing activities.

ARCHAEOLOGICAL SITE CA-SDI-4360 (P-37-004360)

As discussed in the Project Level – Wetland Mitigation Bank section, archaeological site CA-SDI-4360 extends into the western portion of the project site, including the entirety of Parcel A. Potential future commercial land use in Parcel A may result in the destruction or alteration of potentially significant archaeological deposits within a portion of this resource. These are considered potentially significant impacts.

MM CR-1 is proposed to identify significant subsurface archaeological deposits associated with known and unknown archaeological historical resources in the project site and recover the scientifically consequential information they contain. Upon implementation of MM CR-1, impacts on CA-SDI-4360 would be reduced to a less than significant level through the recovery of scientifically consequential information from and about this historical resource.

WESTERN SALT COMPANY SALT WORKS DISTRICT (P-37-026582)

Parcels A, B, and C are located outside the boundary of the WSC Salt Works District. No physical impacts on this resource would occur from the potential future commercial land use of these parcels. Potential future development of Parcels A, B, and C may introduce new visual elements into the viewshed of the WSC Salt Works District historical landscape. However, this resource is already

surrounded by modern commercial and residential buildings and facilities on three sides (west, south, and east). The addition of new visual elements resulting from potential future development of Parcels A, B, and C would not impair the significance of the WSC Salt Works District and would therefore result in no impact on this resource.

ARCHAEOLOGICAL SITE CA-SDI-19712 (P-37-031061)

As discussed in the Project Level – Wetland Mitigation Bank section, archaeological site CA-SDI-19712 extends into Parcels B and C. Potential future commercial land use in Parcels B and C may result in the destruction or alteration of potentially significant archaeological deposits within a portion of this resource. These are considered potentially significant impacts.

MM CR-1 is proposed to identify significant subsurface archaeological deposits associated with known and unknown archaeological historical resources in the project site and recover the scientifically consequential information they contain. Upon implementation of MM CR-1, impacts on CA-SDI-19712 would be reduced to a less than significant level through the recovery of scientifically consequential information from and about this historical resource.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

MM CR-1 **Preparation of a Cultural Resource Mitigation and Management Plan.** Prior to commencement of any ground-disturbing activities but no sooner than 90 percent design completion, the District shall contract a qualified archaeologist who is a member of the Register of Professional Archaeologists and meets the SOI's Professional Qualification Standards for Archaeology (36 CFR 61, Appendix A) to develop a CRMMP.

The CRMMP shall serve to guide the identification, evaluation, and data recovery of all known and unknown archaeological historical resources in the project site. The overall performance goals of the three phases of archaeological activities to be outlined in the CRMMP are:

- a. Identification:** Archaeological testing, guided by an explicit sampling strategy, shall be carried out to identify any intact buried archaeological deposits within the horizontal and vertical extents of project-related disturbance.
- b. Evaluation:** Any intact buried archaeological deposits identified shall be evaluated according to specific thresholds of significance for their potential to yield scientifically consequential information.
- c. Data Recovery:** Any deposits determined to contain scientifically consequential information shall be analyzed and documented following defined methods and objectives in order to recover and preserve the scientifically consequential information they contain.

The CRMMP shall be consistent with the SOI's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716–44740), the California OHP's *Archaeological Resource Management Reports: Recommended Contents and Format* (1990), *Guidelines for Archaeological Research Designs* (1991), and *Guidelines for the Curation of Archaeological Collections* (1993), and the ACHP's *Treatment of Archaeological Properties: A Handbook* (1980).

The CRMMP shall include, at a minimum, the following items:

- **Historic Context:** Based on the relevant sections of the *Cultural Resource Technical Report*, the District's qualified archaeologist shall prepare a comprehensive historic context for the study area and the surrounding region. The historic context shall conform with guidance from the SOI's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44718-44719):
 - Identify the concept, time period, and geographical limits for the historic context
 - Assemble the existing information about the historic context
 - Synthesize information
 - Define property types
 - Identify property types
 - Characterize the locational patterns of property types
 - Characterize the current condition of property types
 - Identify information needs

Specific research topics for the historic context should include attempts to identify further evidence related to the association of CA-SDI-19712 with the Kumeyaay village of La Punta and the Kumeyaay revolt of 1775, as well as a synthesis of comparative regional data from coastal habitation sites dating to the San Dieguito and La Jolla periods to aid in contextualizing the prehistoric occupation of CA-SDI-4360.

- **Research Design:** The CRMMP shall include an explicit statement of theoretical and methodological approaches to be followed in the identification, evaluation, and data recovery of archaeological resources. Following the OHP's *Archaeological Resource Management Reports: Recommended Contents and Format* (1990), appropriate research designs shall:
 - A. Discuss the theoretical basis of the proposed research;
 - B. Summarize previous research;
 - C. Present testable hypotheses or state the goals of the research; and
 - D. Identify the test implications of the hypotheses.

Pursuant to the SOI's Standards for Archaeological Documentation (48 FR 44734–44737), the research design shall draw upon the historic context to identify:

- Evaluated significance of the properties to be studied;
- Research problems or other issues relevant to the significance of the property;
- Prior research on the topic and property type; and how the proposed documentation objectives are related to previous research and existing knowledge;
- The amount and kinds of information (data) required to address the documentation objectives and to make reliable statements including at what point information is redundant and documentation efforts have reached a point of diminishing returns; and

- Methods to be used to find the information.

Pursuant to the SOI's Standards, the research design shall explicitly identify the archaeological data classes that are required to address the specified documentation objectives. Consistent with the information needs identified in the historic context, the research design shall provide thresholds for determining the point at which further data recovery and documentation fail to improve the usefulness of the archeological information being recovered (48 FR 44735).

- **Methods:** The CRMMP shall include specific field and laboratory methodologies for the identification, evaluation, and data recovery of archaeological resources. Because all archaeological excavation is by nature destructive, field methods shall be developed once project design has reached 90 percent completion and shall be reviewed upon submittal of final design, in order to avoid unnecessary impacts on archaeological resources in areas that would not be affected by the project, per CEQA Guidelines Section 15162.4(b)(3).
 - *Identification and Evaluation:* The final grading and construction plans shall be reviewed to determine the precise horizontal and vertical extents of ground-disturbing activities. Based on this information, the District's qualified archaeologist shall develop an archaeological testing and evaluation plan with the stated objective of identifying any intact buried archaeological deposits within the project's limits of disturbance and determining their significance in accordance with the CRHR criteria (14 CCR 4852[b]). Per the SOI's Standards and Guidelines for Identification and Evaluation (48 FR 44720–44726), the testing plan should include methods appropriate for the environmental and cultural context of the area under study, as well as expected results and reasons for those expectations. Identification and evaluation Methods for identification and evaluation shall include the following:
 - Mapping and site gridding;
 - Full-coverage site survey with point-plotting of surface artifacts;
 - Placement of shovel test pits, auger units, test units, or mechanically excavated trenches, guided by an explicit sampling strategy, not to exceed the extents of proposed disturbance in any given location;
 - Recording procedures for documenting the results of the excavations, including soil matrix descriptions, artifact types and classifications;
 - Procedures for in-field recordation of artifacts and features based on type, including prescriptive standards for measurement, description, documentation of stratigraphic context, and photographic documentation;
 - Specific methodologies and thresholds for determining the integrity of deposits and expected feature types (e.g., shell midden deposits, hearths, occupational deposits) and their potential to yield scientifically consequential data;
 - Explicit methods for estimating the spatial extent of intact buried deposits identified based on the results of test excavations; and



- An artifact disposition policy, stating that only artifacts associated with features and deposits determined to be significant shall be collected for laboratory analysis. All other artifacts shall be recorded in the field and reburied in the unit where they were recovered.
- *Data Recovery*: The CRMMP shall include a treatment plan for recovering and preserving scientifically consequential data from intact archaeological deposits identified during the testing and evaluation phase that are determined to be significant according to the criteria set forth in the research design. Following the guidelines provided in the ACHP's *Treatment of Archaeological Properties: A Handbook* (1980), the data recovery plan shall employ methods that shall ensure full, clear, and accurate descriptions of all field operations and observations. Excavation techniques, recording methods, stratigraphic and associational relationships, environmental relationships, and analytical techniques shall be described, insofar as is feasible, in such a way as to allow future researchers to reconstruct what was done, what was observed, and why. To the extent feasible, the methods shall take into account the possibility that future researchers would need to use the recovered data to address problems not recognized at the time the data were recovered. Per the SOI's Standards and Guidelines for Archaeological Documentation (48 FR 44734–44737), the archaeological data recovery plan shall include an explicit statement of objectives and methods that responds to needs identified in the research design. The methods and techniques chosen for archeological documentation shall be the most effective, least destructive, most efficient and economical means of obtaining the needed information.

The data recovery plan shall include the following:

- Explicit descriptive statements of and justification for field study techniques.
- A discussion of expected feature types and associated techniques for excavation, recordation, and analysis.
- Specific thresholds for determining the level of effort necessary to achieve successful data recovery, based on the estimated spatial extent of intact buried deposits identified in the previous phase. Thresholds shall be tailored to specific deposit and feature types. For instance, the recovery of consequential archaeological data from a small hearth may be considered successful upon excavation of half of the feature by volume. Larger and more complex deposits and features may require an explicit sampling strategy. In all cases, recovery thresholds shall be formulated based on the data needs identified in the research design and adequate justification shall be provided.
- Recording procedures for documenting the results of the excavations, including soil matrix descriptions, artifact types and classifications.
- Procedures for in-field recordation of artifacts and features based on type, including prescriptive standards for measurement, description, documentation of stratigraphic context, and photographic documentation.

- Procedures for recovering samples of soil matrix for specialized analysis (e.g., pollen analysis, phytolith analysis, and flotation for macro-botanical remains and fish scales and otoliths), samples of organic materials for radiocarbon dating, as well as other elemental or chemical analyses.
- Laboratory procedures for the initial processing and subsequent analysis of recovered materials, based on the objectives identified in the research design.
- An artifact disposition policy, providing criteria and procedures for determining the disposition of artifacts once laboratory analysis is concluded. Artifact curation and discard principles shall be organized under three considerations: research values, practicality, and education potential. Artifacts that meet the discard criteria (e.g., lack of long-term research value, poor archaeological context, poor condition, lack of education potential) shall be reburied at a specified location in the project site.

All archaeological units for identification, evaluation, and data recovery shall be excavated in 10-centimeter levels. Sediments removed shall be dry-sifted through 1/8-inch mesh screens. Screening shall be conducted over plastic sheeting (tarps) to reduce environmental damage, prevent contamination of the site's surface deposit, and expedite the backfilling process. Testing data, which includes depth, soil descriptions, soil type and consistency, stratigraphy, and artifact type and material, shall be recorded on standardized forms. Unit form templates shall be included in the CRMMP.

Unit locations, features, surface finds, and other spatial data shall be controlled with reference to the Universal Transverse Mercator grid superimposed on aerial photographs rendered by a geographical information system. Data points to be mapped shall be collected with a GPS unit with submeter accuracy.

Artifacts from each field excavation provenience shall be measured, photographed, and recorded on the standardized unit forms. If paleontological resources are encountered, they shall be noted and mapped, but shall not be part of the analysis unless it is clear they are associated with a cultural context.

All artifacts from surface collections and excavations shall be collected, with the exception of fire-affected rock, which shall be counted, weighed, and reburied in the excavation unit.

All collected artifacts shall be analyzed using the lab methods outlined in the CRMMP. Native American cultural materials shall be classified into one of 12 categories: core, debitage, flaked-stone tool, cobble/percussion tool, ground stone, ceramic, modified bone, modified shell, and miscellaneous items. Recovered ecofacts (unmodified bone and shell specimens) shall be cataloged by faunal class. Historical items shall be identified as specifically as possible, and study beyond simple identification would not be undertaken unless particular items appear to date to the ethnohistoric or Early Historic period.

- **Archaeological Reporting:** The CRMMP shall set forth the requirements for reporting. All reports shall be prepared in accordance with the guidelines established by the Secretary of the Interior's Standards for Archaeological Documentation (48 FR 44734–44737) and the OHP's *Archaeological Resource Management Reports: Recommended Contents and Format* (1990) and shall be submitted to the District and the SCIC.
 - *Testing, Evaluation, and Data Recovery Reports:* Upon completion of each phase of archaeological testing evaluation, and data recovery, the District's qualified archaeologist shall document the results in a report. These documents shall summarize the testing and evaluation efforts and data recovery results by each area or feature that undergoes data recovery.
 - *Archaeological Monitoring Report:* Upon completion of grading and excavation activities, the District's qualified archaeologist shall prepare a written report detailing monitoring activities performed at archaeological sites CA-SDI-4360 and CA-SDI-19712 and at any other previously undiscovered archaeological site, including the methodology and results of off-site screening of sediment, in the event it is necessary. The report shall include the results of the fieldwork and all appropriate laboratory and analytical studies that were performed in conjunction with excavations.
- **Curation of Archaeological Collections:** Archaeological collections comprise several components, including artifacts, environmental and dating samples, field documentation, laboratory documentation, photographic records, related historical documents, and reports. The District's qualified archaeologist shall prepare a plan for curating all artifacts, notes, photographs, and materials recovered during identification, evaluation, data recovery, and monitoring. Artifacts to be curated shall include all those that were not discarded pursuant to the artifact disposition policy. The curation plan shall be consistent with the OHP's *Guidelines for the Curation of Archaeological Collections* (1993). Curation of artifacts and materials recovered from archaeological investigations requires a formal agreement between the District and a certified curation facility, which shall be initiated prior to undertaking archaeological fieldwork.

All materials that are to be curated shall be placed in archival quality, long-term storage packing materials, including acid-free, lignin-free boxes and inert polyethylene bags. The District shall also curate records prepared or assembled in connection with the project, including field notes, drawings, photographs, maps, special studies, and final reports. After completion of laboratory analyses and the production of the final reports, the collection shall be transported to the designated curation facility where it shall be available for study by researchers.

- **Personnel and Qualifications:** The CRMMP shall include a discussion of roles and required qualifications for personnel conducting archaeological testing, evaluation, data recovery, and monitoring. All qualifications shall be verified by the District prior to conducting work for the project. All procedures required by this mitigation measure shall be carried out by, or under the direct supervision of, persons who meet, at a minimum, the SOI's Professional Qualifications Standards for Archaeology (48 FR 44739) and are members of the Register of Professional Archaeologists.

The CRMMP shall outline the requirements and responsibilities for each role, including identifying which personnel shall have the authority to issue stop-work orders during construction and who is responsible for initiating notification procedures in the event of an unanticipated discovery.

- **Measures for Protecting Cultural Resources:** The CRMMP shall include the following measures designed to minimize harm to portions of archaeological sites both within and outside the project's limits of disturbance during construction:
 - *WEAP Training:* The District's qualified archaeologist shall prepare a cultural resource-focused WEAP training that shall be given to all ground-disturbing construction personnel to minimize harm to known and unknown archaeological resources. Topics to be included for WEAP training shall be identified in the CRMMP. All site workers shall be required to complete the WEAP training with a focus on cultural resources, including education on the consequences of unauthorized collection of artifacts and a review of discovery protocol. The WEAP training shall also explain the requirements of mitigation measures to be implemented during ground-disturbing activities.
 - *Delineation of Work Limits:* Prior to construction, the project work limits in the vicinity of previously recorded resources CA-SDI-4360 and CA-SDI-19712 shall be delineated with environmentally sensitive area fencing in order to protect these areas from unnecessary impacts.
 - *Archaeological Monitoring:* The District shall retain archaeological monitors to observe all project-related ground-disturbing activities. The CRMMP shall specify monitoring locations and protocols based on proposed construction activities and the results of archaeological identification, evaluation, and data recovery. In areas where archaeological deposits were not identified or were determined to be disturbed, a single monitor shall be able to observe two or more construction locations or activities within a reasonable walking distance of each other. In areas where intact archaeological deposits were identified, even if they were subject to data recovery, one monitor per location or activity shall be required.

The monitors shall be supervised by a qualified archaeologist who meets the SOI's Professional Qualification Standards for Archaeology (48 FR 44739) and has regional experience in prehistoric archaeology. The CRMMP shall rely on OSHA-qualified determinations in regard to the safety of monitoring locations.

The CRMMP shall include a plan for sampling and off-site visual observation and screening of sediment removed during excavation in the event that on-site monitoring of excavations is unfeasible due to safety considerations. Based on the research design, an appropriate sampling strategy shall be laid out, specifying the relative proportion of sediment to be sampled, protocols for coordinating with construction crews, location where spoils shall be deposited, and procedures for observation, screening, and documentation. In determining sampling protocols, the plan shall consider the archaeological sensitivity of the location from which the sediment has been removed. In areas where archaeological deposits were not identified or were determined to be disturbed, visual observation of a small sample of the spoils (less than 5 percent) shall be required. In areas where intact archaeological deposits were identified, even if they were subject to data recovery, visual observation of a larger sample of the spoils (approximately 20 percent) and screening of a subset of this sample (approximately 5 percent) shall be required.

- *Unanticipated Discovery Protocol:* As required by Section 15064.5(f) of the CEQA Guidelines, the CRMMP shall include provisions for historical or unique archaeological resources accidentally discovered during construction. If cultural materials are discovered during construction, all ground disturbance within a 100-foot-wide buffer of the immediate discovery area shall temporarily cease until the District's qualified archaeologist can assess the nature and significance of the find. If the feature or deposit appears to be intact, it shall be evaluated according to the procedures detailed in the archaeological testing and evaluation plan and the District shall be immediately notified. If the feature or deposit is determined to be significant, the procedures outlined in the data recovery plan shall be implemented.
- ***Native American Cultural Patrimony:*** In the event of the discovery, during any stage of archaeological research or construction, of objects or features with cultural value to descendant communities, including Native American burial remains, associated and unassociated funerary objects, sacred objects, and other cultural patrimony, all ground-disturbing activities in the vicinity of the discovery shall cease immediately. In case isolated objects are encountered in disturbed stratigraphic contexts, the Native American monitor shall be consulted to ensure appropriate treatment or disposition of the objects (per MM CR-4). In case intact deposits are encountered that may reasonably indicate the presence of burial features or human remains, a 100-foot-wide buffer shall be established around the find to secure it from further disturbance and all applicable protocols shall be followed in accordance with MM CR-3.

MM CR-2 Documentation of Pond 20 to Historic American Landscape Survey Standards and Development of Educational Display. Prior to commencement of any ground-disturbing activities within the Wetland Mitigation Bank Parcel, the District shall supplement the existing HALS documentation of the WSC Salt Works District (USFWS 2001) with additional research, field recordation, and photographic documentation of Pond 20A to HALS standards. Further documentation of Pond 20A shall include: (1) large-format photographic recordation of views of the setting and character-defining features of the portion of Pond 20A within the project site, including levees, channels, secondary berms delimiting individual ponds, and wooden post-and-plank features; (2) preparation of a detailed plan of the historical features of Pond 20A based on field recordation; (3) a detailed historical narrative report; and (4) compilation of historical research, photographs, and maps. The documentation shall be completed by a qualified historian or architectural historian who meets the Secretary of the Interior's Professional Qualification Standards for History or Architectural History. The archival documentation shall be donated to a suitable repository, such as the San Diego History Center, and copies shall be provided to local historical organizations, such as the South Bay Historical Society. Because creation of the Wetland Mitigation Bank Parcel would alter or destroy some of the existing features of Pond 20A that are representative of past salt works activities (while retaining others, such as the surrounding berm), the District shall design, fabricate, and install an educational display based on archival documentation. The educational display shall include two interpretive panels with historical photographs, maps, and narrative text demonstrating the history of the salt pond and its past use, to be placed in public view at suitable locations at the southern (along Palm Avenue) and western (adjacent to the 13th Street parking lot) boundaries of the project site. The panels shall include information directing viewers to a website, to be designed, prepared, and maintained by the District, providing further historical narratives, photographs, and maps based on archival documentation.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM CR-1 Preparation of a Cultural Resource Mitigation and Management Plan.

Significance after Mitigation

Implementation of MM CR-1 would reduce impacts on archaeological sites CA-SDI-4360 and CA-SDI-19712 from destruction or alteration of potentially significant subsurface archaeological deposits through the recovery of scientifically consequential information from and about historical resources. Impacts on these resources would be less than significant.

Implementation of MM CR-2 would reduce impacts on the WSC Salt Works historic resource by requiring documentation of Pond 20 and development of educational materials prior to construction. Impacts on this resource would be less than significant.

Implementation of MM CR-1 and MM CR-2 would reduce impacts on historical resources as a result of the proposed project to less than significant.



Threshold (b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.

Project Level – Wetland Mitigation Bank

As discussed under Threshold (a), archaeological sites CA-SDI-4360 and CA-SDI-19712 are recorded within the Bank Site; the latter resource also extends into Parcels B and C, which are proposed as staging areas. There is potential to cause a substantial adverse change in the significance of these archaeological resources, as well as to previously unrecorded archaeological resources buried within the project site, during any ground-disturbing work associated with the wetland mitigation bank. This is considered a significant impact.

MM CR-1 is proposed to identify significant subsurface archaeological deposits associated with known and unknown archaeological historical resources in the project site and recover the scientifically consequential information they contain. Upon implementation of MM CR-1, impacts on archaeological sites CA-SDI-4360 and CA-SDI-19712, and any previously unrecorded archaeological resources, would be reduced to a less than significant level through the recovery of scientifically consequential information from and about these historical resources.

Program Level – Parcels A, B, and C Port Master Plan Amendment

As discussed under Threshold (a), archaeological sites CA-SDI-4360 and CA-SDI-19712 are recorded within Parcels A, B, and C. There is potential to cause a substantial adverse change in the significance of these archaeological resources, as well as to previously unrecorded archaeological resources buried within the project site, during any ground-disturbing work associated with potential future commercial development in Parcels A, B, and C. This is considered a potentially significant impact.

MM CR-1 is proposed to identify significant subsurface archaeological deposits associated with known and unknown archaeological historical resources in the project site and recover the scientifically consequential information they contain. Upon implementation of MM CR-1, impacts on archaeological sites CA-SDI-4360 and CA-SDI-19712, and any previously unrecorded archaeological resources, would be reduced to a less than significant level through the recovery of scientifically consequential information from and about these historical resources.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

MM CR-1 Preparation of a Cultural Resource Mitigation and Management Plan.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM CR-1 Preparation of a Cultural Resource Mitigation and Management Plan.

Significance after Mitigation

Implementation of MM CR-1 would reduce impacts on archaeological sites CA-SDI-4360 and CA-SDI-19712 from destruction or alteration of potentially significant subsurface archaeological deposits through the recovery of scientifically consequential information from and about historical resources. Implementation of MM CR-1 would reduce impacts on archaeological resources as a result of the project to less than significant.

Threshold (c) Disturb any human remains, including those interred outside of formal dedicated cemeteries.

Project Level – Wetland Mitigation Bank

As discussed under Threshold (a), archaeological sites CA-SDI-4360 and CA-SDI-19712, both of which have yielded human remains, are recorded within the Bank Site; the latter resource also extends into Parcels B and C, which are proposed as staging areas. Therefore, all ground-disturbing activities associated with the Wetland Mitigation Bank would occur in areas with the potential to contain human remains. This is considered a potentially significant impact.

Section 15064.5(e) of the CEQA Guidelines prescribes compliance with Health and Safety Code 7050.5 and, in the event that the remains are determined to be Native American, with PRC 5097.98. MM CR-3 provides specific measures for the protection of human remains from inadvertent destruction during construction and lays out the procedures to be followed in the event that human remains are uncovered, including if they are identified as of Native American origin. Repatriation, archaeological treatment, or appropriate studies prior to reinternment of human remains are considered appropriate and adequate measures to mitigate impacts on inadvertently discovered human remains and are consistent with Section 15064.5 of the CEQA Guidelines. Upon implementation of MM CR-3, impacts on potential human remains would be reduced to a less than significant level.

Program Level – Parcels A, B, and C Port Master Plan Amendment

As discussed under Threshold (a), archaeological sites CA-SDI-4360 and CA-SDI-19712, both of which have yielded human remains, are recorded within Parcels A, B, and C. Therefore, all ground-disturbing activities associated with potential future commercial development in Parcels A, B, and C would occur in areas with the potential to contain human remains. This is considered a potentially significant impact.

MM CR-3 provides specific measures for the protection of human remains from inadvertent destruction during construction and lays out the procedures to be followed in the event that human remains are uncovered, including if they are identified as of Native American origin. Upon implementation of MM CR-3, impacts on potential human remains would be reduced to a less than significant level.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

MM CR-3 Inadvertent Discovery of Human Remains. If any previously unrecorded human remains are inadvertently discovered during archaeological investigations or construction, all ground-disturbing activities in the vicinity of the discovery shall cease immediately and a 100-foot-wide buffer shall be established around it to secure it from further disturbance. California state law (Health and Safety Code Section 7050.5; PRC Sections 5097.94, 5097.98 and 5097.99) shall be followed. This law specifies that work shall stop immediately in any areas where human remains or suspected human remains are encountered. The District and the county coroner shall be immediately notified of the discovery. The coroner has 2 working days to examine the remains after being notified by the lead agency. If the remains are determined to be Native American, the coroner has 24 hours to notify NAHC, who shall determine the most likely descendant. The NAHC shall immediately notify the identified most likely descendant,



and the most likely descendant has 48 hours to make recommendations to the landowner or representative for the respectful treatment or disposition of the remains and grave goods. If the most likely descendant does not make recommendations within 48 hours, the area of the property shall be secured from further disturbance. If no recommendation is given, the District or its authorized representative shall re-inter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM CR-3 Inadvertent Discovery of Human Remains.

Significance after Mitigation

Implementation of MM CR-3 would reduce impacts from disturbing human remains by identifying procedures if an inadvertent discovery is made during ground disturbing activities. Implementation of MM CR-3 would reduce the impact from disturbing human remains as a result of the project to less than significant.

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3.5 Energy

3.5.1 Overview

This section describes the existing energy conditions and applicable laws, regulations, and policies associated with energy consumption, as well as an analysis of the potential effects resulting from implementation of the proposed project. Information contained in this section is summarized from the Energy Technical Memorandum (Appendix G).

3.5.2 Existing Conditions

The project site, including the Bank Parcel and Parcels A, B, and C, is currently vacant and does not consume any energy such as electricity, natural gas, or from transportation-based energy sources. As discussed in more detail in Section 3.15, Utilities and Service Systems, due to the urban location of the project site, the project site is within the service area of one energy provider, SDG&E, which provides electricity and natural gas to San Diego County. SDG&E provides energy service to over 3.6 million people (i.e., 1.4 million electric meters and 873,000 natural gas meters) 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 2018 more than 43 percent of the electricity SDG&E supplied was from renewable energy sources, compared to less than 1 percent in 2002 (SDG&E 2020).

On March 9, 2020, the California Public Utilities Commission (CPUC) certified San Diego Community Power, a five city community choice aggregation program to begin service effective March 1, 2021 (CPUC 2020). The five member cities include San Diego, Chula Vista, Imperial Beach, La Mesa, and Encinitas and, as a second energy provider in the area, San Diego Community Power is expected to serve 920,000 customers. San Diego Community Power would expand clean energy supplies to the member cities and would have the necessary energy delivery, billing maintenance, and other various activities maintained by SDG&E.

On the project site, overhead SDG&E electric distribution lines run north to south along the western edge of Parcel C. SDG&E has an easement for these distribution lines.

State and Regional Energy Resources and Use

California has a diverse portfolio of resources that produced 2,408.2 trillion British thermal units (BTU) of energy in 2018 (U.S. Energy Information Administration 2020a). California was the seventh-largest producer of crude oil among the 50 states in 2018, and, as of January 2019, it ranked third in oil refining capacity. California's total energy consumption is second-highest in the nation, but, in 2018, the state's per capita energy consumption was the fourth-lowest, due in part to its mild climate and its energy efficiency programs. In 2018, California ranked first in the nation as a producer of electricity from solar, geothermal, and biomass resources and fourth in the nation in conventional hydroelectric power generation and in 2018 produced 194,842 gigawatt hours (millions of kilowatt hour) of electricity (U.S. Energy Information Administration 2020b; California Energy Commission [CEC] 2019). In 2018, large- and small-scale solar PV and solar thermal installations provided 19 percent of California's net electricity generation (U.S. Energy Information Administration 2020b). San Diego County is served by

SDG&E, as discussed above. In 2018, SDG&E customers consumed 21,207 gigawatt hours of electricity and 48 trillion BTU of natural gas, of which commercial uses consume approximately 53 percent of the electricity and 39 percent of the natural gas (CEC 2018a).

3.5.3 Applicable Laws, Regulations, and Policies

State

Assembly Bill and Senate Bill 32

Assembly Bill (AB) 32, also known as the California Global Warming Solutions Act of 2006, establishes the statewide goal of achieving 1990 GHG emissions levels by 2020. As part of AB 32, the CPUC and the CEC are tasked to provide information, analysis, and recommendations to CARB regarding methods to reduce GHG emissions in the electricity and natural gas utility sectors. Signed on September 8, 2016, SB 32 updates AB 32 by requiring a statewide GHG emissions reduction of 40 percent below 1990s levels by 2030. SB 32 outlines ways to achieve this emissions reduction goal, including increasing renewable energy use, improving energy efficiency, and establishing caps on emissions from key industries.

California's Renewable Portfolio Standard

Established in 2002 under SB 1078, California's Renewables Portfolio Standard (RPS) applies to all electricity retailers in the state, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities were required to adopt the new RPS goals of 20 percent of retail sales from renewables by the end of 2013, 25 percent by the end of 2016, and the 33 percent requirement being met by the end of 2020. The CPUC and CEC jointly implement the RPS.

Senate Bill 350

Signed on October 7, 2015, SB 350, also known as the Clean Energy and Pollution Reduction Act of 2015, includes objectives to increase the procurement of the state's electricity from renewable sources from 33 percent to 50 percent by December 31, 2030, and to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation by 2030. SB 350 establishes annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses by January 1, 2030.

Senate Bill 100

Signed by former Governor Jerry Brown on September 10, 2018, SB 100 updated the goals of California's RPS (SB 1078) and SB 350. SB 100 requires the retail sellers of electricity to achieve a 50 percent renewable resources target by December 31, 2026, and a 60 percent target by December 31, 2030. In addition, eligible renewable energy resources and zero-carbon sources are required to supply 100 percent of retail sales of electricity to retail customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045.

Senate Bill 1389

SB 1389 requires the CEC to adopt an Integrated Energy Policy Report every 2 years and an update every other year. The Integrated Energy Policy Report addresses electricity, natural gas, and transportation fuels. The latest completed report, the *2018 Integrated Energy Policy Report Update* (CEC 2018b), addresses a variety of topics, including double energy efficiency savings, integrating renewable energy, and forecasting energy demand.

California Building Energy Code

The 2019 California Green Building Standards Code (CCR, Title 24, Part 11), also called the CALGreen Code, went into effect on January 1, 2020, and includes mandatory standards for residential and nonresidential buildings. The 2019 standards improve upon the 2016 standards for new construction of, and additions and alterations to, residential and nonresidential buildings. These codes are updated every 3 years and escalate as time progresses.

CEQA Guidelines Appendix F

Appendix F of the 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 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; and
- Increasing reliance on renewable energy sources.

Local

Green Port Program and Green Port Policy

The District's Board of Commissioners adopted the Green Port Policy in 2007 under Board of Port Commissioner Policy Number 736. The Green Port Policy established the framework for the Green Port Program by identifying objects for the integration of overarching sustainability principles and initiatives to guide business decisions, development, and operations within the District's jurisdiction. The Green Port Policy includes the following objectives:

- Minimize, to the extent practicable, environmental impacts directly attributable to operations of 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

Port of San Diego Climate Action Plan

The District's Climate Action Plan (CAP) includes policies and measures to reduce GHG emissions, including energy conservation and efficiency strategies and alternative energy generation policies. The CAP identifies baseline and future GHG emissions. The baseline year identified is 2006 and future emissions for 2020, 2035, and 2050 were projected by estimating emission impacts for future development projects and increases in cargo and cruise activity. The District identified goals of GHG reduction of 10 percent less than 2006 baselines levels by 2020 and 25 percent less than 2006 baselines levels by 2035. The CAP contains measures and polices to achieve these targets. The CAP also puts the District on the trajectory of meeting its share of the 2050 statewide target.

City of San Diego Municipal Code

The District does not currently process building permits; therefore, the project is required to obtain building permits from the City of San Diego and comply with building standards in the City of San Diego Municipal Code. The City of San Diego's Municipal Code includes the Land Development Code to help ensure that development in the city is protective of public health, safety, and welfare. The intent of the Land Development Code is to provide different review processes appropriate to the different types of development. The City of San Diego's Green Building Regulations include the 2019 California Green Building Standards and are published in Chapter 14 Article 10 of the Land Development Code. The City of San Diego's Municipal Code requires compliance with the mandatory measures under CALGreen for residential and nonresidential projects.

3.5.4 Environmental Impacts

This section presents the methodology applied for the evaluation, the significance criteria used for considering project impacts related to energy resources, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level component includes a PMPA to incorporate of Parcels A, B, and C into the PMP, which requires a land use designation be assigned. The parcels are proposed to be assigned a commercial recreation land use designation. At this time, no construction or operational activities are proposed on Parcels A, B, and C. The impact analysis below evaluates a reasonable scenario of commercial development on Parcels A, B, and C. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to a CDP and project approval, and any additional CEQA compliance.

Methodology

Because the project-level component involves a wetland mitigation bank, there would be no long-term changes in energy consumption for the wetland mitigation bank. Project operation would only involve maintenance with one vehicle accessing the site on a monthly basis, and once annually after the 5 year monitoring period is complete. As a wetland mitigation bank, the project's primary energy consumption would occur during the construction phase. The project's potential energy impacts are analyzed based on estimated net energy consumption with regards to transportation-related energy (e.g., petroleum-based fuels). At the program level, energy consumption during construction of future commercial development is also analyzed based on estimated net energy consumption with regards to transportation-related energy (e.g., petroleum-based fuels). In addition, operational energy consumption is analyzed for commercial development related to building energy use (electricity and natural gas) and fuel consumption.

Construction trip generation used in this analysis was based on the air quality worksheets and the CalEEMod output data (Appendix D). Developed by the California Air Pollution Control Officers Association, the CalEEMod is a statewide land use emissions computer model that estimates construction and operational emissions from a variety of land use projects. In addition, operational energy consumption is analyzed for commercial development related to building energy use and fuel consumption. The program level analysis assumes maximization of land development on the parcels and would contain 105,000 square feet of commercial space. Due to limitations in what specific type of commercial development can be assumed at this program level of analysis, a reasonable case scenario for construction is assumed. Calculations were made for levels of carbon dioxide (CO₂) produced, fuel use, natural gas consumption, electricity consumption. Conversion factors used include metric tons to pounds, pounds of CO₂ per gallon of diesel, and pounds of CO₂ per gallon of gasoline (U.S. EPA n.d.).

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to energy are considered significant if any of the following occur:

- a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation
- b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

As discussed in Section 3.5.3, the CEQA Guidelines also requires a discussion of the potential energy impact possibilities and potential conservation measures applicable to the EIR. The impact analysis below also includes a consistency analysis with the considerations described in Appendix F of the CEQA Guidelines.

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (b) would result in no impact for the project-level wetland mitigation bank creation; therefore, it is not included in the analysis below (see Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR).

Impact Analysis

Threshold (a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Project Level – Wetland Mitigation Bank

CONSTRUCTION

Construction activities for the wetland mitigation bank would consume electricity and fossil fuels and would not require consumption of natural gas. Construction of the proposed project is anticipated to take approximately 17 months. Construction staging areas would require preparation, including minor grading, clearing and grubbing, fencing, and application of gravel or similar products to stabilize the areas and would occur over the course of 2 months. Mass grading of the project site would occur over 6 months and would require 80 hauling trucks per day. Fine grading would occur over 4 months and would require 10 to 15 hauling trucks per day for 2–3 weeks. Landscaping would occur over 4 months and the berm breach excavation would occur over 1 month. The various construction equipment required and duration of use is detailed in Chapter 2, Project Description.

The use of construction vehicles and equipment would consume fossil fuels, such as diesel, gasoline, and oil. Construction would involve several stages and different types of fuels for different types of equipment, including light- and heavy-duty trucks or machinery. Water consumption during construction activities would indirectly consume electricity. Table 3.5-1 summarizes the amount of diesel and gasoline estimated to be consumed during construction of the wetland mitigation bank.

Table 3.5-1. Project Level Construction Energy Consumption

Energy Type	Amount Consumed
Diesel Fuel Used	169,799.1 gallons
Gasoline Used	4,142.1 gallons

Notes:

Total construction gasoline CO₂ consumed: 36.9 MTs. Total construction diesel consumed: 1,723.7 MTs.
 CO₂=carbon dioxide; MT=metric tons

Project construction is expected to consume a total of approximately 169,799.1 gallons of diesel fuel from construction equipment, hauling, and water truck trips, and approximately 4,142.1 gallons of gasoline from construction worker vehicle trips. Construction activities and corresponding fuel energy consumption would be temporary and localized, as the use of diesel fuel and heavy-duty equipment would not be a permanent operating condition of the project. The gasoline consumed during construction represents approximately 0.000003 percent of all gasoline sold within San Diego County in 2017 (1,377 millions of gallons [CEC n.d.]). The diesel consumed during project construction would represent approximately 0.001 percent of all diesel sold in San Diego County in 2017 (103 millions of gallons [CEC n.d.]). This represents a very small portion of demand on local and regional fuel supplies and would be accommodated through existing supply sources. This low level of demand for fuel would have no noticeable effect on peak or baseline demands for energy. In addition, there are no unusual project characteristics that would cause the use of construction equipment to be less energy efficient



compared with other similar construction sites in other parts of the State. Therefore, construction would not result in wasteful, inefficient, or unnecessary consumption of energy resources, and impacts would be less than significant.

OPERATION

The proposed mitigation bank would involve very minimal maintenance activities, as one vehicle would conduct monitoring of the project site once a month for a period of 5 years and once per year after this 5-year period. Therefore, the long-term energy consumption on the project site would not change. Impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. This impact analysis evaluates a reasonable development scenario for Parcels A, B, and C, which is a future commercial land use and relies on the reasonable development assumptions identified in Chapter 2, Project Description.

CONSTRUCTION

Similar to the discussion under the Project Level – Wetland Mitigation Bank section, construction activities for future commercial development would consume electricity and fossil fuels and would not require consumption of natural gas. As detailed in the Energy Technical Memorandum (Appendix G), the CalEEMod default construction equipment and duration for 105,000 square feet of total commercial development across all three parcels was used to calculate estimated energy consumption. Construction is estimated to take approximately 19 months. Construction phases include grading, building construction, architectural coating, and paving. The use of construction vehicles and equipment would consume fossil fuels, such as diesel, gasoline, and oil. Construction would involve several stages and different types of fuels for different types of equipment, including light- and heavy-duty trucks or machinery. Water consumption during construction activities would indirectly consume electricity. Table 3.5-2 summarizes the amount of diesel and gasoline estimated to be consumed during construction of future commercial development.

Table 3.5-2. Program Level Construction Energy Consumption

Energy Type	Amount Consumed
Diesel Fuel Used	53,697.0 gallons
Gasoline Used	4,276.8 gallons

Notes:

Total construction gasoline CO₂ consumed: 38.1 MTs. Total construction diesel consumed: 545.1 MTs.

CO₂=carbon dioxide; MT=metric tons

Future commercial development construction is anticipated to consume a total of approximately 53,697 gallons of diesel fuel from construction equipment, hauling, and water truck trips and approximately 4,276.8 gallons of gasoline from construction worker vehicle trips. Construction activities and corresponding fuel energy consumption would be temporary and localized, as the use of diesel fuel and heavy-duty equipment would not be a typical condition of the project. The gasoline consumed during construction represents approximately 0.000003 percent of all gasoline sold within San Diego County in 2017 (1,337 millions of gallons [CEC n.d.]). The diesel consumed during project construction would represent approximately 0.0005 percent of all diesel sold in San Diego County in 2017 (103 millions of gallons [CEC n.d.]). This represents a small demand on local and regional fuel supplies and would be accommodated, and this demand for fuel would have no noticeable effect on peak or baseline demands for energy. In addition, there are no unusual project characteristics that would cause the use of construction equipment to be less energy efficient compared with other similar construction sites in other parts of the state. Therefore, construction would not result in wasteful, inefficient, or unnecessary consumption of energy resources, and impacts would be less than significant.

OPERATION

Future commercial development would consume energy related to building use, including electricity and natural gas, indirect energy consumption associated with water use, and fuel consumption by employee and visitor vehicles accessing the project site. Table 3.5-3 summarizes the estimated operational energy consumption for future commercial development on the project site. Once operational, the proposed project would require more energy than currently required at the project site under current conditions.

Table 3.5-3. Program-Level Operational Energy Consumption (Annual)

Energy Type	Amount Consumed
Natural Gas	234,150 kBTU
Electricity	1,318,800 kilo-Watt-hour
Diesel Fuel Used	14,619.0 gallons
Gasoline Used	243,630.4 gallons

Notes:

Total on-road gasoline CO₂ consumed: 2,170.4 MTs. Total on-road diesel consumed: 148.4 MTs.
 CO₂=carbon dioxide; kBTU=1,000 British thermal units; MT=metric tons

The estimated natural gas consumed during operation would represent 0.0000006 percent of all natural gas consumed in SDG&E’s service area in 2018, and the estimated electricity consumed during operation would represent 0.000006 percent of all electricity consumed in SDG&E’s service area in 2018 (CEC 2018a). Similar to construction, the estimated consumption of diesel and gasoline would be well below 1 percent of the fuel sold in San Diego County. Overall, this represents a small demand on local and regional energy consumption and would be accommodated through existing sources, and this demand for energy would have no noticeable effect on peak or baseline demands for energy. In addition, there are no unusual project characteristics that would result in a wasteful, inefficient, or unnecessary consumption of energy resources compared with other similar commercial development in other parts of the state. Individual projects, when proposed by a project applicant,



would undergo analysis for consistency with applicable energy reduction policies, the then-existing CBC Energy Efficiency requirements (Title 24), and would consider other energy efficiency measures, as applicable. Therefore, the project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project operation and would not require upgrades to the existing energy infrastructure to accommodate the increased energy demand of the proposed project. Impacts would be less than significant.

While no significant impact has been identified, as described in Section 3.7, Greenhouse Gas Emissions, MM GHG-1 is proposed to reduce GHG emissions from operation of future commercial development. MM GHG-1 includes measures that would reduce energy consumption including reducing water consumption, recycling of solid waste, incorporation of energy efficiency design features that exceed the most recent Title 24 California Building Energy Efficiency Standards, and carbon sequestration. Implementation of MM GHG-1 would reduce the estimated energy consumption identified in Table 3.5-3; however, because no specific commercial development is proposed at this time, the measures that could be employed are unknown and therefore cannot be quantified.

CEQA Guidelines Appendix F

Table 3.5-4 provides a consistency analysis with questions raised in Appendix F of the CEQA Guidelines. While the wetland mitigation bank would not generate demand for energy consumption as discussed above, this consistency analysis is for full buildout conditions including the wetland mitigation bank and future commercial development on Parcels A, B, and C.

Table 3.5-4. Proposed Project Comparison to 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 Table 3.5-1 through Table 3.5-3, which break down construction and operational energy use. As indicated, the project would increase the use of electricity and the need for fossil fuels such as diesel fuel, gasoline, and natural gas.
Effects on local and regional energy supplies and the need for additional capacity	Applies. As discussed above, construction of the wetland mitigation bank and future commercial development would not significantly impact local or regional energy supplies. Operation of future commercial development would not require upgrades to the existing energy infrastructure to accommodate the increased energy demand 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. 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 Building Regulations and Energy Conservation Standards, and California Energy Code (Title 24).
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.

Table 3.5-4. Proposed Project Comparison to CEQA Guidelines Appendix F

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 increase the need for fossil fuels compared to baseline conditions because it would introduce new uses to the project site that would increase transportation energy use. The operation of future commercial development would increase the number of vehicle trips, which would result in use of both gasoline and diesel fuel. However, as discussed in Section 3.7, Greenhouse Gas Emissions, MM GHG-1 would require the proposed project to incorporate sustainability measures to reduce impacts on energy resources, including requiring the installation of charging stations to support electric vehicle usage.

Notes:

CEQA=California Environmental Quality Act; GHG=greenhouse gas; MM=mitigation measure

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required; however, MM GHG-1, as described in Section 3.7, Greenhouse Gas Emissions, would further reduce the project’s operational energy demand.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

Threshold (b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (b) would result in no impact for the project-level wetland mitigation bank creation; therefore, it is not analyzed below.

Program Level – Parcels A, B, and C Port Master Plan Amendment

State and local renewable energy and energy efficiency plans that are applicable to the project’s future commercial development are discussed in Section 3.5.3 and include SB 350, SB 100, California Building Energy Code, the District’s CAP, and the Green Port Policy. Some plans and regulations are statewide and do not require local or project action to implement. Each plan and regulation is discussed below. A conflict with an applicable plan would result in a significant impact.

SB 350. The Clean Energy and Pollution Reduction Act of 2015 includes objectives to increase the procurement of the state’s electricity from renewable sources from 33 percent to 50 percent by December 31, 2030, and to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation by 2030. This is dependent on the utility provider and the project does not impede reaching a goal of 50 percent.



SB 100. SB 100 increases the RPS target set in SB 350 to 60 percent by 2030. It also requires all retail sales of electricity to California end-users and electricity procured to serve state agencies to be provided by zero-carbon resources by 2045. The project does not impede implementation of SB 110 and MM GHG-1 would require buildings to exceed Title 24 building standards.

California Building Energy Code. The 2019 California Green Building Standards Code (CCR, Title 24, Part 11), also called the CALGreen Code includes mandatory standards for nonresidential buildings. The 2019 standards improve upon the 2016 standards for new construction of nonresidential buildings. MM GHG-1 would require buildings to exceed Title 24 building standards.

District CAP. The District’s CAP includes policies and measures required by state and federal regulations, as well as transportation-related measures, to reduce energy use and associated emissions. The District CAP sets forth a number of regulations and goals that would be applicable to the project including building to green building standards, vehicle idling enforcement during construction, disclose use of energy use. The project would comply with the District’s CAP through implementation of MM GHG-1, which would require compliance with sustainability measures identified in the District CAP. Additionally, MM TRAN-1 would require traffic demand management plan that promotes ride sharing and vanpooling and provides subsidies for transit passes to reduce worker trips and parking demand, which would be consistent with the District’s CAP.

Implementation of MM GHG-1 and MM TRAN-1 would ensure future commercial development is consistent with the applicable state and local renewable energy and energy efficiency plans. Impacts would be less than significant.

Mitigation Measure(s)

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM GHG-1 Greenhouse Gas Emission Reducing Design. For details, see Section 3.7, Greenhouse Gas Emissions.

MM TRAN-1 Implement Transportation Demand Management Measures. For details, see Section 3.13, Transportation.

Significance after Mitigation

Implementation of MM GHG-1, as described in Section 3.7, Greenhouse Gas Emissions, would require compliance with the District’s CAP and other applicable state and local renewable energy and energy efficiency plans through implementation of energy conservation measures. Implementation of MM TRAN-1, would require a traffic demand management plan that promotes ride-sharing and vanpooling and provides subsidies for transit passes to reduce worker trips and parking demand, which would be consistent with the District’s CAP. Impacts associated with the program-level component would be less than significant with mitigation. In addition, as indicated in Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR, there would be no impact associated with the project-level component. Therefore, impacts for the overall project would be less than significant with mitigation incorporated.

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3.6 Geology and Soils

3.6.1 Overview

This section describes the existing geologic conditions and applicable laws, regulations, and policies associated with geology, soils, and paleontological resources, as well as an analysis of the potential effects resulting from implementation of the proposed project. Information contained in this section is based on the Soil Assessment Report for the Salt Pond 20 prepared by Kleinfelder in 2019 (Appendix H) and the Limited Geotechnical Investigation for the San Diego Wildlife Refuge Pond 20 Mitigation prepared by Geocon Incorporated in 2019 (Appendix I). The Soil Assessment Report was prepared to evaluate the environmental and geotechnical suitability of the Bank Site soil for on-site reuse, off-site reuse, or disposal; therefore, the report only analyzed the Bank Parcel, and not Parcels A, B and C. The Limited Geotechnical Investigation was prepared to evaluate the surface and subsurface soil conditions of the project site; therefore, the report analyzed the entire project site, but did not consider development on Parcels A, B, or C beyond potential staging areas for construction of the wetland mitigation bank. For the purposes of this analysis, the results of the reports provide appropriate context and conclusions for the project due to the nature of soil conditions and geology not being limited to parcels but covering a general location.

3.6.2 Existing Conditions

Site Geology

San Diego County resides within the southern portion of California's Peninsular Ranges Geomorphic Province, which is characterized by an assemblage of north- to northwest-trending, high-relief mountain ranges. The project site is located within a sub-zone of the province, which is the coastal plain sub-zone and is dominated by a westward thickening wedge of sedimentary units that were deposited on the Cretaceous- to Jurassic-age igneous and metamorphic bedrock material. The sedimentary units consist of a variety of claystone, siltstone, sandstone, and conglomerate.

The project site is relatively flat, with elevations approximately 7 to 12 feet above mean sea level. The project site consists of a surficial 0.25- to 0.5-foot thick salt crust layer of overlying marine deposits. The marine deposits predominately consist of sandy to silty clays, clays, sandy silts, and poorly-graded sands and silty sands.

Undocumented fill

Undocumented fill was encountered at one boring location to a maximum depth of 4 feet. The undocumented fill consists of damp to saturated dark gray, silty clay. This soil is associated with the berms around Pond 20 with an anticipated maximum thickness of 9 feet in the northeast portion of the site.

Alluvium

Alluvium is present below the fill material to depths greater than 30 feet and consists of damp to saturated, dark gray to grayish brown, silty to clayey, fine to coarse sand. A layer of gravel occurs at an elevation of roughly 18 feet below mean sea level and is above the Old Paralic Deposits. The saturation of the alluvium is due to the low elevation and proximity to the San Diego Bay. Excavations for the tidal zones may encounter alluvium soil.

Old Paralic Deposits

Old Paralic Deposits (previously called the Bay Point Formation) are anticipated to occur at depth at an approximate elevation of 30 to 35 feet below mean sea level and below the undocumented fill and alluvium layers. This soil is characterized as stiff, moist, silty clay and dense to very dense, damp to moist, silty, clayey sand.

Geologic Hazards

Faulting and Seismicity

The California Geological Survey defines an active fault as a fault showing evidence for activity within the last 11,000 years. The project site is not located within a State of California Earthquake Fault Zone, and there are no known active, potentially active, or inactive faults located at the project site.

The nearest known active faults are the Newport-Inglewood/Rose Canyon Fault system, located approximately 3 miles west of the site and are the dominant source of potential ground motion at the project site (Figure 3.6-1).

Subsidence Ground

Subsidence is a process characterized by downward displacement of surficial materials caused by natural phenomena, such as removal of underground fluids, natural consolidation, dissolution of underground minerals, or by man-made phenomena such as underground mining or tunneling. The project site does not fall within an area of land subsidence (USGS n.d.). However, the subsurface conditions reveal loose and soft bay deposits within the vicinity of the project site that may experience subsidence when loaded with additional overburden pressures.

Liquefaction, Lateral Spreading, and Seismically Induced Settlement

Liquefaction can occur when a site is located in a zone with seismic activity, on-site soils are cohesionless, groundwater is encountered within 50 feet of the surface, and soil relative densities are less than about 70 percent. The majority of project site is located in an area of High Potential for liquefaction due to site characteristics, such as shallow groundwater, major drainages, and hydraulic fills (City of San Diego 2008; Figure 3.6-1). Liquefaction occurs when granular soil below the water table is subjected to vibratory motions, such as those produced by earthquakes. With strong ground shaking, an increase in pore water pressure develops as the soil tends to reduce in volume. If the increase in pore water pressure is sufficient to reduce the vertical effective stress (suspending the soil particles in water), the soil strength decreases, and the soil behaves as a liquid (similar to quicksand). Liquefaction can produce excessive settlement, ground rupture, lateral spreading, or failure of shallow bearing foundations.

Lateral spreading occurs when there is liquefiable soil in the immediate vicinity of a free face, such as a slope. The potential for liquefaction, lateral spreading, and seismically induced settlement occurring within the project site likely exists within the existing alluvium and fill material below groundwater elevation.

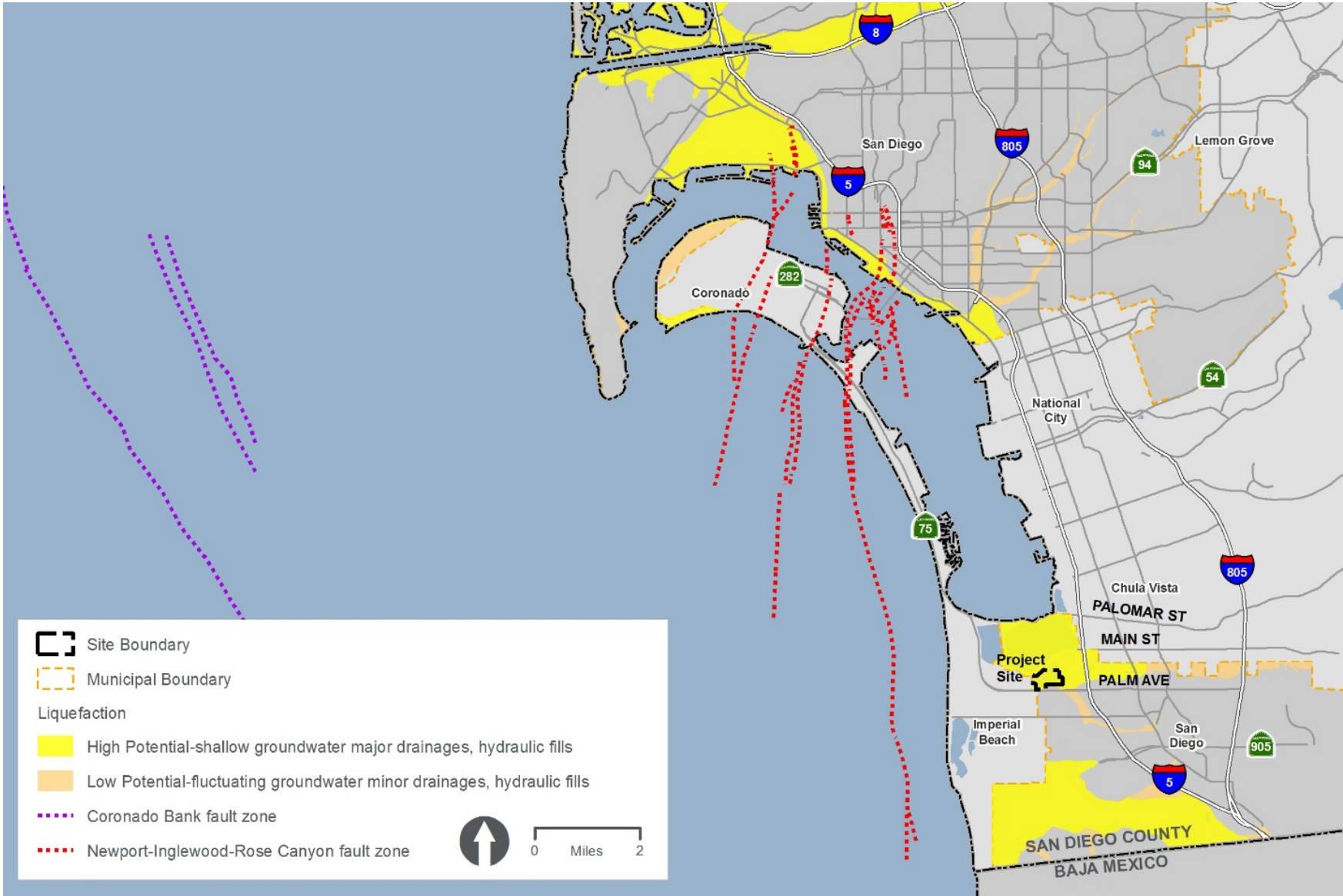


Expansive Soils

Expansive soils are generally plastic clays that can undergo a substantial increase in volume with an increase in moisture content and a substantial decrease in volume with a decrease in moisture content. Expansive soils can cause uplift pressures that can lead to structural damage. The soil encountered in the field investigation for the Limited Geotechnical Investigation is considered non-expansive (very low expansion index of 20 or less) and expansive (low expansion index of 50 or less), as defined by the 2016 CBC Section 1803.5.3.

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Figure 3.6-1. Geological Hazards in the Project Vicinity



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Groundwater

The project site is located in the San Diego Hydrologic Basin Planning Area within the Otay Valley Hydrologic Area of the Otay Hydrologic Unit. The project site is within the boundaries of the Coastal Plain of San Diego Goundwater Basin, which is characterized by three primary water-bearing formations. Groundwater at the project site has been encountered at depths ranging from approximately 3 to 9 feet below existing site grades. Groundwater elevations are dependent on seasonal precipitation, irrigation and land use, among other factors, and vary as a result. The groundwater on the project site should be considered brackish due to the site's proximity to the San Diego Bay and Pacific Ocean.

Paleontological Resources

Paleontology is the science dealing with the remains or traces of prehistoric plants and (nonhuman) animal life. Paleontological resources, also referred to as fossils, encompass the remains or traces of hard and resistant materials, such as bones, teeth, or shells, although plant materials and occasionally less resistant remains (e.g., tissue or feathers) can also be preserved. Fossils are important scientific resources because they can help document the presence of particular groups of organisms, the environments they lived in, and provide a history of environmental and evolutionary change. The formation of fossils typically involves the rapid burial of plant or animal remains and the formation of casts, molds, or impressions in the associated sediment, which subsequently becomes sedimentary rock. As a result of this process, the potential for fossil remains in a given geologic formation can be predicted based on known fossil occurrences from similar (or correlated) geologic formations in other locations.

The San Diego County fossil record is unique and consists of important fossils and fossil assemblages from the late Cretaceous, Eocene, Oligocene, Pliocene, and Pleistocene. The majority of fossils in San Diego County are represented by shells and/or tests of marine invertebrates (corals, mollusks, crustaceans, and echinoderms) (County of San Diego 2009). As discussed above, the site geology consists of undocumented fill, alluvium, and Old Paralic Deposits. The undocumented fill is associated with the berms that surround Pond 20. The alluvium layer was found at every boring location and was documented below the fill material to a depth of 30 feet. The Old Paralic Deposits were not encountered in the exploratory borings; however, based on previous investigations, this unit is at depth at an approximate elevation of 30 to 35 feet (Appendix I).

The undocumented fill may contain marine vertebrates or invertebrates; however, because the fill originated from another location, the original depositional context is unknown and therefore has no value. Alluvium has low potential to contain significant fossils because the layer is relatively young, usually unlithified materials that have been deposited by a variety of sedimentary processes, such as rivers, beaches, and windstorms (City of San Diego 2016; County of San Diego 2009). Old Paralic Deposits (or Bay Point Formations) have a high potential to contain resources and consist primarily of well-preserved nearshore marine invertebrates (City of San Diego 2016).

3.6.3 Applicable Laws, Regulations, and Policies

Federal

Earthquake Hazards Reduction Act

In October 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act to reduce the risks to life and property from future earthquakes in the U.S. through the establishment and maintenance of an effective earthquake hazards reduction program. To accomplish this goal, the act established the National Earthquake Hazards Reduction Program, which was further refined by the National Earthquake Hazards Reduction Program Act.

Paleontological Resources Preservation Act

The proposed rule (43 CFR § 49: Paleontological Resources Preservation, November 21, 2016) would implement the Paleontological Resources Preservation Act of 2009 by providing standards for a coordinated approach to the management of paleontological resources on public lands. The rule clarifies how bureaus will manage paleontological resources to ensure they are available for current and future generations to enjoy as part of America's national heritage.

Uniform Building Code

The Uniform Building Code (UBC) is published by the International Conference of Building Officials and forms the basis for California's building code, as well as approximately half of the state building codes in the U.S. It has been adopted by the California Legislature to address the specific building conditions and structural requirements for California, as well as provide guidance on foundation design and structural engineering for different soil types.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (California PRC Sections 2621–2630) was passed into law following the destructive February 9, 1971, San Fernando earthquake, which was associated with extensive surface fault ruptures that damaged numerous structures. The act provides a mechanism for reducing losses from surface fault rupture on a statewide basis. The intent of the act is to ensure public safety by prohibiting the siting of most structures for human occupancy across traces of active faults that constitute a potential hazard to structures from surface faulting or fault creep.

California Building Code

California provides minimum standards for building design through the CBC (Title 24). The 2019 California codes became effective January 1, 2020. With the shift from seismic zones to seismic design, the CBC philosophy has shifted from "life safety design" to "collapse prevention," meaning that structures are designed for prevention of collapse for the maximum level of ground shaking that could reasonably be expected to occur at a site. Appendix J, Grading, to the CBC includes a requirement for geotechnical report preparation. Section J104.3 Geotechnical Report states:

A geotechnical report prepared by a registered design professional shall be provided. The report shall contain at least the following:

1. The nature and distribution of existing soils.

2. Conclusions and recommendations for grading procedures.
3. Soil design criteria for structures or embankments required to accomplish the proposed grading.
4. Where necessary, slope stability studies, and recommendations and conclusions regarding site geology.

Public Resource Code

The PRC includes regulations for paleontological resources as described below:

- PRC 5097.5: Provides for the protection of paleontological resources and prohibits the removal, destruction, injury, or defacement of paleontological features on any lands under the jurisdiction of state or local authorities.
- PRC 30244: Requires reasonable mitigation for impacts on paleontological resources that occur as a result of development

Seismic Hazard Mapping Act

The California Department of Conservation provides guidance to the Seismic Hazards Mapping Act, which aims to reduce the threat of seismic hazards to public health and safety by identifying and mitigating seismic hazards. State, county, and city agencies are directed to utilize such maps in land use and permitting processes. The act also requires geotechnical investigations particular to the site be conducted before permitting occurs on sites within seismic hazard zones.

State Water Resources Control Board Construction Storm Water Program

Created in 1972 by the CWA, the U.S. EPA authorizes the National Pollutant Discharge Elimination System (NPDES) permit program to state governments to perform permitting, administrative, and enforcement aspects of the program. Construction activities that disturb 1 acre or more of soil are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ (as amended by Order 2010-0014-DWQ and Order 2012-0006-DWQ). Construction activities subject to compliance include clearing, grading, and excavating. Applicants of regulated construction activities are required to file Notice of Intent (NOI) and Permit registration Documents with the SWRCB. Applicants must prepare an SWPPP and demonstrate conformance with applicable construction BMP.

Local

Jurisdictional Runoff Management Program

The project would be subject to erosion control measures outlined in the District's Jurisdictional Runoff Management Program (JRMP) in order to meet the requirements of the District's Municipal Stormwater Permit. The District has developed a list of erosion control BMPs to assist in soil stabilization through source control measures that are designed to prevent soil particles from detaching and becoming transported into stormwater runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles. Minimum BMPs for construction sites are outlined in the JRMP; they include:

- Preservation of existing vegetation;
- Minimization of exposure time of disturbed soil areas;
- Scheduling;

- Hydraulic mulching;
- Soil binders;
- Straw mulches;
- Wood mulching;
- Geotextiles and mats;
- Wind erosion control;
- Soil preparation/roughening;
- Preservation of natural hydrologic features where feasible; and
- Permanent revegetation or landscaping as early as feasible.

City of San Diego Municipal Code

The District does not currently process construction and building permits. The project is required to obtain building permits from the City of San Diego; therefore, the following City of San Diego ordinances apply to the project.

The purpose of Chapter 14, General Regulations, Article 5 Building Regulations, is to establish minimum standards to safeguard health and safety, property, and public welfare, and to satisfy the 2019 CBC. Chapter 14, General Regulations, Article 5 Building Regulations, Division 1 includes the adoption and applicability of the CBC building regulations. This includes the codes in Appendix J, Grading, of the CBC, which are standards for grading, excavation, and earthwork construction, including any fills and embankments, and are relevant to the project, as applicable.

Chapter 12, Land Development Reviews, Article 9 Construction Permits, Division 2 Building Permit Procedures, establishes 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.

3.6.4 Environmental Impacts

This section presents the methodology employed for the evaluation, the significance criteria used for considering project impacts related to geology and soil resources, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level project component includes a PMPA to incorporate Parcels A, B, and C into the PMP, which requires a land use designation be assigned. The parcels are proposed to be assigned a commercial recreation land use designation. At this time, no construction or operational activities is proposed on Parcels A, B, and C. The impact analysis below evaluates a reasonable development scenario for Parcels A, B, and C, which is a future commercial land use. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to, a CDP and project approval and any additional CEQA compliance.

Methodology

Study Area

The study area for geology and soils included a county-wide database search to identify the regional geology, faults, groundwater, and geological conditions. Site reconnaissance and field excavations for the soil assessment report and limited geotechnical investigation were prepared specifically for the project site.

Methods

Potential direct and indirect project impacts were identified using of the technical reports prepared by Kleinfelder and Geocon, which are included in this EIR as Appendices H and I, respectively. Both technical reports included desktop analyses of the geological conditions as well as site reconnaissance and field excavations.

For paleontological resources, there is a direct relationship between the type of rock (i.e., igneous, metamorphic, or sedimentary) and the depositional environment (e.g., marine, lagoonal, fluvial, terrestrial) under which a geologic formation was originally deposited. Therefore, with an understanding of the geology of the project site, it is possible to reasonably predict whether paleontological resources may be present. The City of San Diego 2016 CEQA Significance Determination Thresholds were reviewed to determine the sensitivity rating for the geological deposits or formations documented on the project site (City of San Diego 2016).

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to geology and soils are considered significant if any of the following occur:

- a) Directly or indirectly cause to potential substantive adverse effects, including the risk of loss, injury, or death involving:
 - (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.
 - (ii) Strong seismic ground shaking
 - (iii) Seismic related ground failure, including liquefaction
 - (iv) Landslides
- b) Result in substantial soil erosion or the loss of topsoil
- c) 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 off-site landslide, lateral spreading, subsidence, liquefaction or collapse
- d) Be located on expansive soil, as defined in the latest Uniform Building Code, creating substantial direct or indirect risks to life or property
- e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water

- f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (a.i.) and (a.iv.) would result in no impact for the project-level wetland mitigation bank creation and program-level PMPA. In addition, Threshold (e) would result in no impact for the project-level wetland mitigation bank creation. Therefore, these thresholds are not included in the analysis below (see Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR).

Impact Analysis

Threshold (a) ***Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving: (ii.) strong seismic ground shaking or (iii.) seismic-related ground failure, including liquefaction.***

Project Level – Wetland Mitigation Bank

Active, potentially active, or inactive faults are not located at the project site, and the project site is not located within a State of California Earthquake Fault Zone. However, the San Diego Bay has experienced moderate earthquake activity and there are six known active faults within 50 miles of the project site, the nearest of which are the Newport-Inglewood/Rose Canyon fault system located approximately 3 miles west of the project site. Due to the proximity of these fault systems, the project site is located within an area that is susceptible to strong seismic ground shaking.

The project site is located in an area of High Potential for liquefaction due to site characteristics, such as shallow groundwater, major drainages, and hydraulic fills (City of San Diego 2008). Liquefaction occurs when granular soil below the water table is subjected to vibratory motions, such as produced by earthquakes. With strong ground shaking, an increase in pore water pressure develops as the soil tends to reduce in volume. If the increase in pore water pressure is sufficient to reduce the vertical effective stress (suspending the soil particles in water), the soil strength decreases, and the soil behaves as a liquid (similar to quicksand). Liquefaction can produce excessive settlement, ground rupture, lateral spreading, or failure of shallow bearing foundations.

Creation of the wetland mitigation bank would involve excavation, grading, and soil export activities to establish appropriate topographical conditions and tidal flows to support target marsh-plain elevations, as well as construction of an earthen berm on the northern perimeter of the project site. Excavation depths would be approximately 0 to 6 feet to meet target elevations, including the berm breach location. The earthen berm on the north perimeter of the project site would be 9 feet above the existing grade. Parcels B and C would be used as staging areas for construction. No structures are proposed for construction.

While the project site may experience strong seismic ground shaking, the project would not cause the ground shaking to be more powerful and would not exacerbate the potential for strong seismic ground shaking. The shallow excavations or earthen berm proposed for the project would not be capable of rupturing an existing fault to result fault movement or rupture; therefore, creation of the wetland mitigation bank would not cause an earthquake and the project site does not possess a greater risk of seismic ground shaking than that of surrounding developments (Appendix I). Additionally, ground rupture has a low potential for occurrence due to the absence of active faults on the project site. While the potential for liquefaction on the project site is high and seismically induced settlement could occur in the alluvium and fill materials located below the groundwater elevation, no structures are proposed



for the creation of the wetland mitigation bank. Additionally, construction of the earthen berm would not increase the risk of loss, injury, or death.

The creation of the wetland mitigation bank would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving strong seismic ground shaking, seismic-related ground failure, or liquefaction and impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

As discussed above under Project Level - Wetland Mitigation Bank, there are no known active faults located at Parcels A, B, and C; however, the project site is located in an area that is susceptible to strong seismic ground shaking. Additionally, Parcels A, B, and C are located in an area with a high potential for liquefaction (City of San Diego 2008).

At this time, no construction or operational of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. Due to the site being located in a tectonic and seismically active region, any future structures proposed on Parcels A, B, and C would be subject to seismic shaking. However, future structures on these parcels would be required to comply with current seismic design and soil hazard provisions of the CBC. Additionally, future structures would be unlikely to exacerbate ground shaking because there are no active faults at the project site, and the future commercial development uses would have no characteristics (e.g., disturbance of underlying faults) that could increase the risk of strong seismic ground shaking. Therefore, impacts from strong seismic ground shaking would be less than significant.

Excavation of soils may be necessary for the construction of structures on Parcels A, B, and C. If soil excavation is required, soil compaction could loosen and disturb the existing geological conditions and increase the potential for liquefaction to occur. The project would be required to comply with current seismic design and soil hazard provisions of the CBC. The CBC requires structures be designed for prevention of collapse for the maximum level of ground shaking that could reasonably be expected to occur at a site. The CBC also requires that geotechnical reports be prepared to identify geologic hazards and provide recommendations for foundation type and design criteria. While a *Limited Geotechnical Investigation* has been prepared for the project (Appendix I), the report did not consider development on Parcels A, B, or C. The project is required to obtain a construction permit from the City of San Diego; therefore, the project must be in compliance with the geologic and hazard requirements contained in the City of San Diego Municipal Code. If commercial development on Parcels A, B, and C does not comply with the CBC and City of San Diego Municipal Code regulations, impacts related to unstable soils could be significant. A Geotechnical Investigation Report that analyzes structures on Parcels A, B and C is required per the CBC Appendix J, Grading. The project design would be required to comply with the site-specific recommendations as provided in the Geotechnical Investigation Report. Therefore, impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from strong seismic ground shaking would be less than significant. Impacts from liquefaction on future commercial development would be reduced with compliance with CBC Appendix J, Grading, by requiring preparation of, and compliance with, a project-specific geotechnical investigation report that would include design recommendations to avoid creating or exacerbating a geotechnical or soil hazard. Impacts from the proposed project would be less than significant.

Threshold (b) Result in substantial soil erosion or the loss of topsoil.

Project Level – Wetland Mitigation Bank

Construction staging areas would require preparation, including minor grading, clearing and grubbing, fencing, and application of gravel or similar product to stabilize the areas. Staging is proposed in two areas: Parcel B and Parcel C. The construction staging areas would be established for staging project materials and equipment storage and would not be used for stockpiling excavated materials. Creation of the wetland mitigation bank would involve excavation, grading, and soil export activities to establish appropriate topographical conditions and tidal flows to support target marsh-plain elevations. Soil erosion can result during construction, as grading and construction can loosen surface soils and make soils susceptible to wind and water movement across the surface. The project would disturb more than 1 acre of soil and would be required to obtain coverage under the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ (as amended by Order 2010-0014-DWQ and Order 2012-0006-DWQ) and prepare a SWPPP. The project SWPPP would address erosion and sedimentation by identifying temporary BMPs, such as silt fences, gravel sandbag barriers, straw wattles, or other effective BMPs to control runoff. Additionally, the project would be required to comply with CBC Appendix J, Grading, which requires all grading work to incorporate erosion and drainage control measures in order to prevent erosion and stop sediment and pollutants from leaving the work site. The project would comply with regulations by preparing a SWPPP and implementing BMPs. Therefore, impacts would be less than significant.

Operation of the wetland mitigation bank would provide similar ecological functions as the coastal wetlands in the vicinity of the project site, including improved soil conditions (Appendix C). The risk of erosion during operation would be minimized with improved soil conditions. Further, performance standards during operation, such as establishment of subtidal eelgrass habitat, establishment of tidal and intertidal marsh wetland habitat and establishment of upland buffer/transitional habitat would be required as a part of the monitoring standards for success. Therefore, impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. Development of these parcels would likely require grading, which may result in soil erosion, as described in the Project Level – Wetland Mitigation Bank section above. Parcels A and C are over 1 acre in size and may disturb more than 1 acre of soil during development; however, Parcel B is 1 acre and may not disturb more than 1 acre of soil during development. Therefore, Parcels A and C may be required to obtain coverage under the Construction General Permit and prepare a SWPPP. All three parcels would be required to comply with the District's JRMP erosion control BMPs. In addition, the JRMP includes minimum BMPs



for commercial and industrial facilities (see Table 3.9-3 in Chapter 3.9, Hydrology and Water Quality). The District would require compliance with the following BMP categories:

- General operations and housekeeping
- Non-stormwater management
- Waste handling and recycling
- Outdoor material storage
- Outdoor drainage from indoor activity
- Vehicles and equipment
- Education and training
- Outdoor activity and operation

The project would comply with regulations by preparing a SWPPP and implementing BMPs. Therefore, impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

Threshold (c) 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 off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

Project Level – Wetland Mitigation Bank

As discussed under Threshold (a), although the project site has a high potential for liquefaction, the construction and operation of a wetland mitigation bank would not exacerbate the potential for liquefaction to occur, and the project is not in an area prone to landslides. Lateral spreading is a type of landslide motion generally characterized by progressive cracking and ground motion near a slope face. Lateral spreading is generally associated with liquefiable soils, which allow the slope face and surrounding area to flow during or shortly after earthquake ground motions. Conditions favorable for lateral spreading are frequently found along streams and waterfronts or in loosely placed, saturated, sandy fill.

Construction of the wetland mitigation bank would require construction of an earthen berm on the northern perimeter of the project site, excavations for tidal channels, creation of gently sloping transition zone around the marsh perimeter, and breach of the berm on the northwest corner of the Bank Site to connect the Bank Site to tidal flow. The earthen berm on the north perimeter of the project site would be 9 feet above the existing grade and the slope would be approximately 3:1 (horizontal:

vertical) ratio. There are three types of tidal channels proposed. Type 3 is the main subtidal channel that is proposed to flow through the site and is the widest and deepest channel type. The Type 3 channel would be approximately 8 feet wide at the base and 2 feet below elevation, with a slope ratio of 4:1. The Type 2 channel feeds off the Type 3 channel and is proposed to be approximately 4 feet wide at the base and would be at 0 feet elevation and have a slope of 3:1 ratio. Type 1 channels are proposed off the Type 2 channels and are the shallowest of the tidal channels. The Type 1 channels are proposed to be approximately 2 feet wide at the base at an elevation of 1 feet and a slope ratio of 2:1. Additionally, the transition zone is proposed to have an average slope of 20:1.

The Limited Geotechnical Investigation (Appendix I) includes a slope stability analysis for two cross sections of the Bank Parcel that was conducted using the two-dimensional computer program *GeoStudio2007*. The surficial and global slope stability factors show a factor of safety of greater than 1.5 for both the tidal channels and the earthen berm, which is required by the City of San Diego. The project site would not become unstable due to liquefaction, and lateral spreading would be unlikely due to the results of the slope stability analysis. A wetland mitigation bank would consist of excavation to create canals with local mounding of soil-rock fill materials. Minor ground subsidence within the area of mounding may be experienced. This would be monitored during the 5-year monitoring program for the wetland mitigation bank. Therefore, the wetland mitigation bank would not result in an unstable geologic unit or soil, and impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. As discussed under Threshold (a), the project site has a high potential for liquefaction. Excavation of soils may be necessary for the construction of structures on Parcels A, B, and C. If soil excavation is required, soil compaction could loosen and disturb the existing geological conditions, and therefore, exacerbate the potential for liquefaction. Development of Parcels A, B, and C has the potential to result in liquefaction, which would be a significant impact.

As described under the Project Level – Wetland Mitigation Bank section, the project site is not in an area prone to landslides; however, conditions for lateral spreading are found along streams and waterfronts with saturated or sandy fill. The project site does not fall within an area of land subsidence, but the subsurface conditions reveal loose and soft bay deposits within the vicinity of the project site that may experience subsidence when loaded with additional overburden pressures. Parcels A and C are located adjacent to streams with sloped banks, and the alluvium layer found at these parcels is damp to saturated and contains fine to coarse sand. Parcel B, while not adjacent to a stream, is a narrow parcel with slopes on two sides and has alluvium fill (Appendix H). Development of Parcels A, B, and C has the potential to result in lateral spreading and potential subsidence with loaded, which would be significant.

While a Limited Geotechnical Investigation has been prepared for the project and analyzed the soil at the project site, the report did not consider development on Parcels A, B, or C. Excavation of the in-situ fill materials and alluvium is possible with moderate effort using conventional heavy-duty equipment. However, the existing materials may not be able to properly support heavy equipment and stabilization may be required (Appendix I). The project would be required to comply with current soil hazard provisions of the CBC. The CBC requires that geotechnical reports be prepared to identify geologic hazards and provide recommendations for foundation type and design criteria. While a Limited Geotechnical Investigation has been prepared for the project (Appendix I), the report did not consider

development on Parcels A, B, or C. The project is required to obtain a building permit from the City of San Diego; therefore, the project must be in compliance with the geologic and hazard requirements contained in the City of San Diego Municipal Code. If commercial development on Parcels A, B, and C does not comply with the CBC and City of San Diego Municipal Code regulations, impacts related to unstable soils could be significant. A Geotechnical Investigation Report that analyzes structures on Parcels A, B and C is required per the CBC Appendix J, Grading, the project design would be required to comply with the site-specific recommendations as provided in the Geotechnical Investigation Report. Therefore, impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from landslides would be less than significant. Impacts from liquefaction and lateral spreading would be reduced with the preparation of a Geotechnical Investigation Report as required by CBC Appendix J, Grading. Impacts from the proposed project would be less than significant.

Threshold (d) Be located on expansive soil, as defined in the latest Uniform Building Code, creating substantial direct or indirect risk to life or property.

Project Level – Wetland Mitigation Bank

Expansive soils are generally plastic clays that can undergo a substantial increase in volume with an increase in moisture content and a substantial decrease in volume with a decrease in moisture content. Expansive soils can cause uplift pressures that can lead to structural damage. The soil encountered on the project site during the Limited Geotechnical Investigation is considered to have a very low to low expansion potential, as defined by the 2016 CBC Section 1803.5.3 (Appendix I).

Construction of the wetland mitigation bank would not require import of soils into the project site or affect groundwater depth that could result in a change in water content. Structures on or against expansive soils could experience severe distress. However, since construction of the wetland mitigation bank would not involve structures on or against expansive soils, the project would not result in a risk to life or property due to expansive soil impacts. Impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

The Limited Geotechnical Investigation prepared for the project evaluated the soils on Parcels A, B, and C; therefore, similar to the analysis under the Project Level – Wetland Mitigation Bank section above, soil encountered in the field investigation is considered low or very low for expansion potential as defined by the 2016 CBC Section 1803.5.3 (Appendix I).

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. Construction of the commercial development on Parcels A, B, and C would not import expansive soils into the project site

or affect groundwater depth that could result in a change in water content. The project would be required to comply with current soil hazard provisions of the CBC. The CBC requires that geotechnical reports be prepared to identify geologic hazards and provide recommendations for foundation type and design criteria. While a Limited Geotechnical Investigation has been prepared for the project (Appendix I), the report did not consider development on Parcels A, B, or C. The project is required to obtain a building permit from the City of San Diego; therefore, the project must be in compliance with the geologic and hazard requirements contained in the City of San Diego Municipal Code. If commercial development on Parcels A, B, and C does not comply with the CBC and City of San Diego Municipal Code regulations, impacts related to unstable soils could be significant. A Geotechnical Investigation Report that analyzes structures on Parcels A, B and C is required per the CBC Appendix J, Grading. The project design would be required to comply with the site-specific recommendations as provided in the Geotechnical Investigation Report. Commercial development of Parcels A, B, and C would not be developed on expansive soils and expansive soil impacts would not occur. Impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

Threshold (e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (e) would result in no impact for the project-level wetland mitigation bank creation; therefore, is not analyzed below.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. Parcels A, B, and C are located in urban San Diego and existing wastewater and sewer systems are present in the vicinity of the project. Therefore, it is not anticipated that any future commercial development of Parcels A, B, and C would propose the use of septic tanks or alternative wastewater disposal systems. No impact would occur.

Mitigation Measure(s)

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

No impact would occur. In addition, as indicated in Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR, there would be no impact associated with the project-level component. Therefore, no impact would occur for the overall project.

Threshold (f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Project Level – Wetland Mitigation Bank

Paleontological resources are typically impacted when earthwork activities cut into geological deposits (formations) where fossils are buried. The impact is in the form of the physical destruction of fossil remains. Since fossils are the remains of prehistoric animal and plant life, they are considered nonrenewable. Such an impact is significant and requires mitigation.

The Old Paralic Deposits (previously identified as Bay Point Formation) that have a high potential for paleontological resources are anticipated to be encountered at a depth of 30 to 35 feet at the project site (County of San Diego 2009). While the project would excavate 430,000 cubic yards of soil, Old Paralic Deposits were not encountered during exploratory borings (Appendix I). The project site mainly consists of undocumented fill and alluvium, both of which have low to no potential for paleontological resources (County of San Diego 2009). Construction of the wetland mitigation bank would have a low potential for direct impacts on paleontological resources because the maximum depth of excavation would be 10 feet NAVD88. Therefore, impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. As described under the Project Level – Wetland Mitigation Bank section, construction of future commercial development on Parcels A, B, and C would have low potential for direct impacts on paleontological resources. Based on recent and previous investigative borings, as well as geologic maps of the area, Old Paralic Deposits are found at an approximate elevation of 30 to 35 feet below mean sea level (Kennedy and Tan 1977). Parcels A, B, and C mainly consist of undocumented fill and alluvium, which have no or low potential for paleontological resources (County of San Diego 2009).

Commercial development on Parcels A, B, and C is limited to two stories, and therefore, structural requirements for foundations or pile driving to depths below 30 feet is unlikely. However, pile driving, grading, or excavation may be required below 30 feet. Implementation of MM GEO-1 would require paleontological monitoring in areas of sensitivity when grading or excavation is proposed to depths greater than 10 feet. Implementation of MM GEO-1 would reduce significant impacts to a level less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM GEO-1 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 Planning Department, 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 (bgs) in order 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.

Significance after Mitigation

Implementation of MM GEO-1 would reduce the potential to directly or indirectly destroy a paleontological resource by requiring a qualified paleontologist monitor all excavations or grading below 10 feet. If fossils are discovered, the paleontologist would recover the fossils to be preserved and avoid destruction. Implementation of MM GEO-1 would reduce impacts on paleontological resources as a result of the proposed project to less than significant.

3.7 Greenhouse Gas Emissions

3.7.1 Overview

This section describes the existing conditions and applicable laws, regulations, and policies associated with GHG emissions, as well as an analysis of the potential effects resulting from implementation of the proposed project. Information contained in this section is summarized from the Air Quality and Greenhouse Gas Emissions Study (Appendix D).

3.7.2 Existing Conditions

Global Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to GHG emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity, including CO₂, methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane (CF₄), hexafluoroethane, sulfur hexafluoride (SF₆), fluoroform, 1,1,1,2-tetrafluoroethane, and difluoroethane.

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation. In California, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles) make up the largest source of GHG-emitting sources. The dominant GHG emitted is CO₂, mostly from fossil fuel combustion (Intergovernmental Panel on Climate Change 2014).

GHGs vary considerably in terms of global warming potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time that the gas remains in the atmosphere (atmospheric lifetime). The GWP of each gas is measured relative to CO₂, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by 1 unit mass of the GHG to the ratio of heat trapped by 1 unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of pounds or tons of carbon dioxide equivalents (CO₂e).

GHGs are global pollutants, unlike criteria air pollutants, which occur locally or globally, and local concentrations respond to locally implemented control measures. The long atmospheric lifetimes of GHGs allows them to be transported great distances from sources and become well mixed and do not exhibit strong concentration gradients from point sources. GHG and global climate change represent cumulative impacts; therefore, GHG emissions contribute cumulatively to the significant adverse environmental impacts of global climate change.

Principal Greenhouse Gases

There are numerous GHGs, both naturally occurring and human made. The Intergovernmental Panel on Climate Change and CEQA Section 15364.5 identify the principal GHGs of concern. The primary GHGs of concern are described below:

- CO₂ enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, respiration, and as a result of other chemical reactions (e.g., manufacture of cement). CO₂ is also removed from the atmosphere when it is absorbed by plants as part of the biological carbon cycle.
- CH₄ is emitted during the production and transportation of fossil fuels. CH₄ also results from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfill.
- N₂O is emitted during agricultural and industrial activities, as well as during the burning of fossil fuels and solid waste.
- Hydrofluorocarbons (HFC) are human-made chemicals used in commercial, industrial, and consumer products and have high GWP. HFCs are generally used as substitutes for ozone-depleting substances in automobile air conditioners and refrigerants.
- SF₆ are human-made chemicals used as an electrical insulating fluid for power distribution equipment, in the magnesium industry, in semiconductor manufacturing, and also as a tracer chemical for the study of oceanic and atmospheric processes.

Table 3.7-1 shows the GWPs for each type of GHG. For example, SF₆ is 23,900 times more potent at contributing to global warming than CO₂.

Table 3.7-1. Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	GWP (100-year Time Horizon)
CO ₂	50–200	1
CH ₄	12	21
N ₂ O	114	310
HFC-23	270	11,700
HFC-134a	14	1,300
HFC-152a	1.4	140
PFC: CF ₄	50,000	6,500
PFC: C ₂ F ₆	10,000	9,200



Table 3.7-1. Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	GWP (100-year Time Horizon)
SF ₆	3,200	23,900

Source: Intergovernmental Panel on Climate Change 2007

Notes:

CO₂=Carbon Dioxide; CH₄=Methane; C₂F₆=Hexafluoromethane; N₂O=Nitrous Oxide; CF₄=Tetrafluoromethane; GWP=global warming potential; HFC=Hydrofluorocarbons; SF₆=Sulfur Hexafluoride

Greenhouse Gas Emissions Inventory

An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, national, state, and local GHG emission inventories.

Global Emissions

Worldwide emissions of GHGs in 2017 were 32.5 billion MT of CO₂e per year (International Energy Agency 2019). Global estimates are based on country inventories developed as part of programs of the United Nations Framework Convention on Climate Change.

Federal Emissions

In 2018, total U.S. GHG emissions were 6,677 million MT of CO₂e (U.S. EPA 2020). Emissions increased from 2017 to 2018 by 3.1 percent (after accounting for sequestration from the land sector). This increase was largely driven by an increase in emissions from fossil fuel combustion, which was a result of multiple factors, including more electricity use greater due to greater heating and cooling needs due to a colder winter and hotter summer in 2018 in comparison to 2017. GHG emissions in 2018 (after accounting for sequestration from the land sector) were 10.2 percent below 2005 levels.

State Emissions

According to CARB emission inventory estimates, California emitted approximately 429 million MT of CO₂e emissions in 2016 (CARB 2019). Emissions in 2016 were down 13.3 percent from the 2004 peak of 495 million MT of CO₂e.

CARB has established that the level of annual GHG emissions in 1990 was 431 million MT of CO₂e (CARB 2017); therefore, the state has achieved its goal of meeting 1990 levels by the 2020 goal set by AB 32.

Project Site

The project site consists of approximately 95 acres of District-owned and federally managed land that is currently vacant. Therefore, the GHG emissions from the project site are currently negligible.

3.7.3 Applicable Laws, Regulations, and Policies

Federal

There is no overarching, comprehensive federal law specifically related to the reduction of GHG emissions.

State

Executive Order S-3-05 – Statewide Greenhouse Gas Emission Targets

On June 1, 2005, the Governor issued Executive Order (EO) S-3-05, which set the following GHG emission reduction targets:

- By 2010, reduce GHG emissions to 2000 levels
- By 2020, reduce GHG emissions to 1990 levels
- By 2050, reduce GHG emissions to 80 percent below 1990 levels

This EO also directed the secretary of the California EPA to oversee the efforts made to reach these targets and to prepare biannual reports on the progress made toward meeting the targets and the impacts on California related to global warming. The first such Climate Action Team Assessment Report was produced in March 2006 and has been updated every 2 years thereafter.

California Global Warming Solutions Act (Assembly Bill 32)

In 2006, the California State Legislature enacted the California Global Warming Solutions Act of 2006, also known as AB 32. AB 32 focuses on reducing GHG emissions in California. GHGs, as defined under AB 32, include CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. CARB is the state agency charged with monitoring and regulating sources of emissions of GHGs that cause global warming in order to reduce emissions of GHGs. AB 32 also requires that by January 1, 2008, the CARB must determine what the statewide GHG emissions level was in 1990, and it must approve a statewide GHG emissions limit so it may be applied to the 2020 benchmark. CARB approved a 1990 GHG emissions level of 427 million MT of CO₂e, on December 6, 2007 in its Staff Report. Therefore, in 2020, emissions in California are required to be at or below 427 million MT of CO₂e.

Under the business as usual (BAU) scenario established in 2008, statewide emissions were increasing at a rate of approximately 1 percent per year, as noted below. It was estimated that the 2020 estimated BAU of 596 million MT of CO₂e would have required a 28 percent reduction to reach the 1990 level of 427 million MT of CO₂e.

Executive Order B-30-15

On April 20, 2015, Governor Edmund G. Brown Jr. signed EO B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's EO aligns California's GHG reduction targets with those of leading international governments, such as the 28-nation European Union, which adopted the same target in October 2014. California is on track to meet or exceed its legislated target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32, summarized above).

California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below 2 degrees Celsius (°C), the warming threshold at which there would likely be major climate disruptions, such as super droughts and rising sea levels.

Senate Bill 32

SB 32 was signed into law on September 8, 2016, and expands upon AB 32 to reduce GHG emissions. SB 32 sets into law the mandated GHG emissions target of 40 percent below 1990 levels by 2030 written into EO B-30-15.

Climate Change Scoping Plan

The Scoping Plan released by CARB in 2008 outlined the state's strategy to achieve the AB 32 goals. This Scoping Plan, developed by CARB in coordination with the Climate Action Team, proposed a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health. It was adopted by CARB at a meeting in December 2008. According to the Scoping Plan, the 2020 target of 427 million MT of CO₂e requires the reduction of 169 million MT of CO₂e, or approximately 28.3 percent, from the state's projected 2020 BAU emissions level of 596 million MT of CO₂e.

In August 2011, the Scoping Plan was re-approved by CARB and includes the Final Supplement to the Scoping Plan Functional Equivalent Document. This document includes expanded analysis of project alternatives, as well as updates the 2020 emission projections in light of the current economic forecasts. Considering the updated 2020 BAU estimate of 507 million MT of CO₂e, only a 16 percent reduction below the estimated new BAU levels would be necessary to return to 1990 levels by 2020. The 2011 Scoping Plan expands the list of 9 early action measures into a list of 39 recommended actions.

In May 2014, CARB developed, in collaboration with the Climate Action Team, the first update to California's Climate Change Scoping Plan (Update), which shows that California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020, as required by AB 32. In accordance with the United Nations Framework Convention on Climate Change, CARB is beginning to transition to the use of the fourth assessment report's 100-year GWP in its climate change programs. CARB has recalculated the 1990 GHG emissions level with the fourth assessment report GWPs to be 431 million MT of CO₂e; therefore, the 2020 GHG emissions limit established in response to AB 32 is now slightly higher than the 427 million MT of CO₂e in the initial Scoping Plan.

In 2016, legislature passed SB 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the legislature passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan. CARB is moving forward with a second update to the Scoping Plan to reflect the 2030 target set by EO B-30-15 and codified by SB 32. According to the 2017 Scoping Plan, the 2030 target of 260 million MT of CO₂e requires the reduction of 129 million MT of CO₂e, or approximately 33.2 percent, from the state's projected 2030 BAU emissions level of 389 million MT of CO₂e.

Assembly Bill 1493 – Light-duty Vehicle GHG Emissions Standards

AB 1493 (commonly known as Pavley) requires CARB to develop and adopt regulations that achieve “the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state.”

On September 24, 2009, CARB adopted amendments to the Pavley regulations that intend to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments bind California’s enforcement of AB 1493 (starting in 2009), while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to merge its rules with the federal Corporate Average Fuel Economy rules for passenger vehicles. In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single packet of standards called Advanced Clean Cars.

Executive Order S-01-07

This EO, signed by Governor Schwarzenegger on January 18, 2007, directs that a statewide goal be established to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by the year 2020. It orders that a Low Carbon Fuel Standard for transportation fuels be established for California and directs the CARB to determine whether a Low Carbon Fuel Standard can be adopted as a discrete early action measure pursuant to AB 32.

CARB approved the Low Carbon Fuel Standard as a discrete early action item with a regulation adopted and implemented in April 2010.

Renewable Portfolio Standard

RPS promotes diversification of the state’s electricity supply and decreased reliance on fossil fuel energy sources. Originally adopted in 2002, with a goal to achieve a 20 percent renewable energy mix by 2020 (referred to as the initial RPS), the goals have been accelerated and increased by EO S-14-08 and EO S-21-09 to a goal of 33 percent by 2020.

In April 2011, the Governor signed SB 2 (1X) codifying California’s 33 percent RPS goal; Section 399.19 requires the CPUC, in consultation with the CEC, to report to the legislature on the progress and status of RPS procurement and other benchmarks. The purpose of the RPS, upon full implementation, is to provide 33 percent of the state’s electricity needs through renewable energy sources. Renewable energy includes, but is not limited to, wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.

The RPS is included in CARB’s Scoping Plan list of GHG reduction measures to reduce energy sector emissions. It is designed to accelerate the transformation of the electricity sector through such means as investment in the energy transmission infrastructure and systems to allow integration of large quantities of intermittent wind and solar generation. Increased use of renewables would decrease California’s reliance on fossil fuels, thus reducing emissions of GHGs from the electricity sector. In 2008, as part of the Scoping Plan original estimates, CARB estimated that full achievement of the RPS would decrease statewide GHG emissions by 21.3 million MT of CO₂e. In 2010, CARB revised this number upwards to 24.0 million MT of CO₂e. The state’s RPS was further augmented through the adoption of SB 350 and SB 100.

Senate Bill 350

SB 350 was signed into law in September 2015. SB 350 establishes tiered increases to the RPS of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Senate Bill 100

SB 100, adopted in September 2018, requires the state's retail electricity to achieve a 60 percent renewable energy portfolio by 2030 (an increase from 50 percent set forth by SB 350), and 100 percent carbon free renewable energy portfolio by 2045.

Senate Bill 375 – Regional Emissions Targets

SB 375 was signed into law in September 2008 and requires CARB to set regional targets for reducing passenger vehicle GHG emissions in accordance with the Scoping Plan. The purpose of SB 375 is to align regional transportation planning efforts, regional GHG reduction targets, and fair-share housing allocations under state housing law. SB 375 requires Metropolitan Planning Organizations to adopt a Sustainable Communities Strategy or Alternative Planning Strategy to address GHG reduction targets from cars and light-duty trucks in the context of that Metropolitan Planning Organization's Regional Transportation Plan.

Senate Bill 97 – CEQA GHG Amendments

SB 97 acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. The California Natural Resources Agency adopted amendments to the CEQA Guidelines to address GHG emissions, consistent with the Legislature's directive in PRC Section 21083.05.

State of California Building Energy Efficiency Standards (Title 24, Part 6)

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (24 CCR Part 6) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The premise for the standards is that energy efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for space and water heating) results in GHG emissions.

The CEC adopted new 2019 Building Energy Efficiency Standards effective January 1, 2020. The 2019 Building Energy Efficiency Standards improve upon the 2016 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The most significant efficiency improvements to the residential Standards include the introduction of photovoltaic into the prescriptive package, improvements for attics, walls, water heating, and lighting. Future standards are expected to result in zero net energy for newly constructed commercial buildings (CEC 2018).

California Integrated Waste Management Act

The California Integrated Waste Management Act (IWMA or AB 939), passed in 1989, repealed portions of the Title 7.3 of the Government Code (GC) governing solid waste management and portions of the Health and Safety Code related to garbage and refuse disposal. The IWMA established an integrated waste management hierarchy to guide local agencies in implementing source reduction, recycling and composting, and environmentally safe transformation and land disposal. The IWMA created the California Integrated Waste Management Board and required counties to create a task force for the development of Source Reduction and Recycling Elements. Additionally, it established a mandated waste diversion target of 50 percent of all solid waste from landfills by 2020.

Local

San Diego Unified Port District Climate Action Plan

The District adopted a CAP in December 2013. The CAP includes an inventory of existing emissions broken into smaller sectors including: energy, water use and waste water, on-road transportation, off-road transportation, and waste. The CAP includes projections for emissions for 2020 and 2035 dates, specific targets to reduce GHGs by 2020 and 2035 in order to achieve statewide 2020 and 2030 targets, and putting the District on the trajectory of meeting its share of the 2050 statewide target. The District's reduction measures include those required by state and federal regulations, and District-specific policies and measures focus on the following:

- **Transportation Land Use Planning:** Support alternatively fueled technology and implement management systems that increase the efficiency of transportation and reduce energy consumption
- **Energy Conservation and Efficiency:** Employ energy strategies in buildings and exterior spaces that save money on utility costs, reduce GHG emissions, and provide other community benefits
- **Water Conservation and Recycling:** Conserve, treat, and reuse water to minimize GHG emissions and conserve a scarce resource
- **Alternative Energy Generation:** Meet energy demands through renewable energy generation
- **Waste Reduction and Recycling:** Promote behavioral changes that encourage conserving resources, reuse, and recycling

City of San Diego Municipal Code

On July 1, 2008, Chapter 6, Article 6, Division 6: Construction and Demolition Debris Diversion Deposit Program took effect. The ordinance requires that the majority of construction, demolition and remodeling projects requiring building or demolition permits:

- Pay a refundable construction and demolition debris recycling deposit
- Divert their debris by recycling, reusing, or donating usable materials
- Keep construction and demolition materials out of local landfills and ensure they get recycled

3.7.4 Environmental Impacts

This section presents the methodology applied for the evaluation, the significance criteria used for considering project impacts related to GHG emissions, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level project component includes incorporation of Parcels A, B, and C into the PMP, which requires a land use designation be assigned. The parcels are proposed to be assigned a commercial recreation land use designation. At this time, no construction or operational activities is proposed on Parcels A, B, and C. The impact analysis below evaluates the reasonable scenario of commercial development on Parcels A, B, and C. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to, a CDP and project approval, and any additional CEQA compliance.

Methodology

The project's GHG emissions were estimated using the CalEEMod (Version 2016.3.2) emission model. Construction emissions were amortized over the life of the project (defined as 20 years), added to the operational emissions, and compared to the applicable GHG significance thresholds.

Neither CARB nor San Diego Air Pollution Control District has adopted significance criteria applicable to land use development projects for the evaluation of GHG emissions under CEQA. California OPR's Technical Advisory titled "CEQA and Climate Change: Addressing Climate Change through CEQA Review" states: "public agencies are encouraged, but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact." Furthermore, the advisory document indicates, "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice."

The District, as the CEQA lead agency for this project, is analyzing the proposed project using the San Diego County Recommended Approach for Addressing Climate Change, which uses a screening threshold of 900 MT of CO₂e per year (County of San Diego 2015). A project that exceeds the 900 MT of CO₂e per year screening threshold would be required to conduct a more detailed GHG analysis. Screening thresholds are recommended based on various land use densities and project types. Projects that meet or fall below the screening thresholds are expected to result in 900 MT of CO₂e per year or less and would not require additional analysis; the GHG emission-related impacts would be considered less than significant.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to GHG emissions are considered significant if any of the following occur:

- a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs

Impact Analysis

Threshold (a) Generate greenhouse gas emissions, either directly or indirectly, that may have an adverse effect on the environment.

Project Level – Wetland Mitigation Bank

CONSTRUCTION

Construction of the wetland mitigation bank would result in temporary emissions associated with diesel engine combustion from mass grading, and site preparation construction equipment is assumed to occur for engines running at the correct fuel-to-air ratios (the ratio whereby complete combustion of the diesel fuel occurs).

The project site would be cleared, graded, and constructed over the course of approximately 17 months. The most recent version of the CalEEMod model (Version 2016.3.2) was used to calculate the construction emissions. Table 3.7-2 quantifies the expected GHG emissions from construction activities. As shown, construction of the proposed project would generate 1,760.6 MT of CO₂e.

Table 3.7-2. Project Construction Greenhouse Gas Emissions

Year	Pollutant Emissions (MT/year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
2021	1,549.5	0.4	0.0	1,558.6
2022	200.4	0.1	0.0	202.0
Total	1,749.9	0.5	0.0	1,760.6

Source: Appendix D of this EIR

Notes:

CH₄=methane; CO₂=carbon dioxide; CO₂e=carbon dioxide equivalents; MT=metric tons; N₂O=nitrous oxide

In accordance with the county's guidelines, the proposed project is analyzed under a 900 MT of CO₂e per year screening threshold. As stated in the county guidelines, construction emissions may be distributed over the expected (long-term) operational life of a project, which can conservatively be estimated at 20 years (County of San Diego 2015). Therefore, the yearly contribution to GHG from the aggregate of construction on the project site would be 88.0 MT of CO₂e per year. This is below the 900 MT of CO₂e per year screening threshold established by the county. Therefore, impacts from construction of the wetland mitigation bank would be less than significant.



OPERATIONS

Once all performance standards have been met, the wetland mitigation bank is anticipated to be self-sustaining. However, because of the urban surroundings, long-term management may be needed for maintenance of:

- Invasive species monitoring and removal;
- Trash removal;
- Maintenance of site control measures (e.g., fencing); and
- Restoration of any damage from human or maintenance activities or natural phenomenon.

Monthly maintenance would be required for operation of the facility during the initial 5 years of establishment, and after the 5 year monitoring is complete, trips would be completed annually, resulting in a *de minimis* amount of emissions. Therefore, when added to the construction emissions, project operations would not generate GHG emissions in excess of the county's 900 MT of CO₂e per year screening threshold. Impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. This impact analysis evaluates a reasonable development scenario for Parcels A, B, and C, which is a future commercial land use and relies on the reasonable development assumptions identified in Chapter 2, Project Description.

CONSTRUCTION

Construction of the future commercial developments would result in temporary emissions associated with diesel engine combustion from mass grading, site preparation, and building construction.

The project site would be cleared, graded, and constructed after the completion of the wetland mitigation bank. The most recent version of the CalEEMod model (Version 2016.3.2) was used to calculate the construction emissions. The potential impacts were estimated using the default settings in CalEEMod for 105,000 square feet of specialty retail/strip commercial development for all three parcels. Table 3.7-3 quantifies the expected GHG emissions from construction activities. Construction of the future commercial developments would generate 584.0 MT of CO₂e.

Table 3.7-3. Program Level - Construction Greenhouse Gas Emissions

Year	Pollutant Emissions (MT/year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
2023	397.8	0.1	0.0	400.1
2024	182.3	0.0	0.0	183.2
Total	580.1	0.1	0.0	583.3

Source: Appendix D of this EIR

Notes:

CH₄=methane; CO₂=carbon dioxide; CO₂e=carbon dioxide equivalents; N₂O=nitrous oxide

In accordance with the county's guidelines, the future commercial development is analyzed under a 900 MT of CO₂e per year screening threshold. As stated in the county guidelines, construction emissions may be distributed over the expected (long-term) operational life of a project, which can conservatively be estimated at 20 years for the purposes of determining a cumulatively considerable contribution (County of San Diego 2015). Thus, the yearly contribution to GHG from the aggregate of construction on the project site would be 29.2 MT of CO₂e per year. This is below the 900 MT of CO₂e per year screening threshold established by the county. Therefore, impacts from construction of future commercial development would be less than significant.

OPERATIONS

The operational GHG emission estimates were also calculated using CalEEMod. The potential impacts were estimated using the traffic volumes included in the transportation study memorandum (Appendix N2), and the default settings in CalEEMod for 105,000 square feet total of specialty retail/strip commercial development across all three parcels. The following activities associated with the project could directly or indirectly contribute to the generation of GHG emissions:

- **Gas, Electricity, and Water Use** – Natural gas use results in the emissions of two GHGs: CH₄ (the major component of natural gas) and CO₂ from the combustion of natural gas. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. Annual electricity emissions were estimated using the reported GHG emissions per kilowatt-hour for SDG&E; the supplier would provide electricity for the project.
- **Solid Waste Disposal** – Solid waste generated by the project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH₄ from the anaerobic decomposition of organic materials. CH₄ is 21 times more potent a GHG than CO₂. However, landfill CH₄ can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.
- **Motor Vehicle Use** – Transportation associated with the program developments would result in GHG emissions from the combustion of fossil fuels in vehicle trips. The developments would result in GHG emissions through the vehicular traffic generated.



- Combined Emissions** – The GHG emission estimates presented in Table 3.7-4 show the emissions associated with the level of development at build-out. Table 3.7-4 shows that program level project operations would result in total estimated annual emissions of 2,909.6 MTs of CO₂e per year.

Table 3.7-4. Program Level – Projected Annual Greenhouse Gas Emissions

Source	Pollutant Emissions (MT/year)					
	Bio-CO ₂	NBio-CO ₂	CO ₂	CH ₄	N ₂ O	CO ₂ e
Construction emissions amortized over 20 years	0.0	29.0	29.0	0.0	0.0	29.2
Operational Emissions						
Area sources	0.0	0.0	0.0	0.0	0.0	0.0
Energy sources	0.0	443.5	443.5	0.02	0.0	445.1
Mobile sources	0.0	2,315.6	2,315.6	0.1	0.0	2,318.8
Waste sources	22.4	0.0	22.4	1.3	0.0	55.4
Water usage	2.5	50.4	52.9	0.3	0.01	61.2
Total operational emissions	24.8	2,809.5	2,834.4	1.7	0.01	2,880.4
Total program level project emissions	24.8	2,838.5	2,863.4	1.7	0.01	2,909.6

Source: Appendix D of this EIR

Notes:

Columns may not add up due to rounding.

Bio-CO₂=biogenic carbon dioxide; CH₄=methane; CO₂=carbon dioxide; CO₂e=carbon dioxide equivalent; MT=metric tons; NBio-CO₂=non-biogenic carbon dioxide; N₂O=nitrous oxide

Construction activities would generate GHG emissions from equipment use and transportation of workers travelling to and from the project site. The amount of GHG emissions that would be generated is not anticipated to be substantial due to the temporary nature of construction. Operation of the future commercial development would result in annual emissions of 2,880.4 MT of CO₂e per year. Combined, construction and operational emissions would result in 2,909.6 MT of CO₂e per year, which exceeds the 900 MT of CO₂e per year screening threshold established by the county. Therefore, the future commercial development would have a potentially significant impact relative to GHG emissions.

MM GHG-1 would require future commercial development implement GHG emission reducing measures, which could reduce energy sources, waste sources, and water usage emissions. Because no development is proposed at this time, the measures that could be employed are unknown. Therefore, the amount of CO₂e per year that could be reduced by implementing MM GHG-1 is not quantifiable. MM GHG-2 would require new development to meet the state’s Zero Net Energy standards, if and when adopted. The CPUC’s California Energy Efficiency Strategic Plan has the goal of all new commercial construction be Zero Net Energy by 2030. Additionally, MM TRAN-1 would

require a traffic demand management plan be prepared and implemented, which would promote ride sharing and vanpooling and provide subsidies for transit passes to reduce worker trips and parking demand. As discussed in Section 3.13, Transportation, this measure would reduce vehicle miles traveled (VMT) by 2.6 percent. This would reduce the mobile sources operational emissions shown in Table 3.7-4 by 2.6 percent, or 39.3 MT of CO₂e per year. Because reductions from MM GHG-1 cannot be quantified, and MM TRAN-1 would only reduce emissions by 39.3 MT of CO₂e per year, impacts remain significant and unavoidable.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM GHG-1 GHG Emission-Reducing Design. Prior to approval, future commercial developments shall list all GHG emission-reducing measures and demonstrate where these measures would be located in the plans. A report demonstrating compliance shall be submitted to the District's Planning Department.

The following is a list of proposed sustainability measures from the District CAP that shall be required and incorporated into the CDP for the project.

- General measures:
 - No commercial drive-through shall be implemented.
- Water:
 - Indoor water consumption shall be reduced by 20 percent lower than baseline buildings (defined by Leadership in Energy and Environmental Design as indoor water use after meeting Energy Policy Act of 1992 fixture performance requirements) through use of low-flow fixtures in all administrative and common area bathrooms.
 - Low-water plantings and drip irrigation shall be installed, and domestic water demand from the city system for landscaping purposes shall be minimized.
- Waste:
 - Compliance with AB 939 shall be mandatory and include recycling at least 50 percent of solid waste; recycling of demolition debris shall be mandatory and include recycling at least 65 percent of all construction and demolition debris.
 - All commercial, restaurant, and retail uses shall implement recycling, composting of food waste and other organics, and the use of reusable products instead of disposable products to divert solid waste from the landfill stream.
 - Recycled, regional, and rapidly renewable materials shall be used where appropriate during project construction.

- Energy:
 - Energy efficiency design features shall be incorporated that exceed the most recent Title 24 California Building Energy Efficiency Standards. Measures that may be implemented include:
 - Only fluorescent, light-emitting diodes, compact fluorescent lights, or the most energy-efficient lighting that meets required lighting standards and is commercially available shall be used.
 - Occupancy sensors for all vending machines shall be installed in new buildings at the project site.
 - On-site renewable energy to new buildings shall be implemented, unless the system cannot be built due to structural and operational constraints; evidence must be provided if not feasible, subject to District concurrence.
 - Cogeneration systems (i.e., combined heat and power systems) shall be installed in new buildings constructed at the project site.
 - High-performance glazing with a low solar heat gain coefficient value that reduces the amount of solar heat allowed into the building shall be installed, without compromising natural illumination.
 - Increased insulation shall be installed.
 - Cool roofs with an R value of 30 or better shall be installed.
 - Sun-shading devices shall be installed, as appropriate.
 - High-efficiency heating, ventilating, and air conditioning systems and controls shall be installed.
 - Programmable thermostats shall be installed.
 - Variable frequency drives shall be installed.
 - Energy Star-rated appliances shall be installed.
- Mobile sources:
 - A minimum 6 percent of parking spaces shall be electric vehicle-ready.
 - A transportation demand management plan for each project component that requires mandatory employer commuting measures, such as carpooling, transit subsidies, and vanpools, shall be implemented to reduce worker trips and parking demand.
 - Bicycle parking shall be included in project design. The number of spaces shall be, at a minimum, 5 percent of new automobile parking spaces.
- Carbon sequestration and land use:
 - Trees and shrub planters shall be installed throughout the project area as part of the landscape plan.

MM GHG-2 Electric Heating and Zero Net Energy Building. The District shall require all development to meet the state's Zero Net Energy standards, if the standards are adopted prior to commencement of construction.

MM TRAN-1 Implement Traffic Demand Management Measures. For details, see Section 3.13, Transportation.

Significance after Mitigation

The creation of the wetland mitigation bank would result in 88.0 MT of CO₂e per year, which is below the 900 MT of CO₂e per year screening threshold established by the county. Under a reasonable scenario of Parcels A, B, and C being developed with 105,000 combined construction and operational emissions, the result is 2909.6 MT of CO₂e per year. The amortized construction emissions associated with the wetland mitigation bank would add 88.0 MT of CO₂e per year to the 2,909.6 MT of CO₂e per year generated by the construction and operation of the future commercial development. The total annual emissions of 2,997.6 MT of CO₂e would exceed the 900 MT of CO₂e per year screening threshold. MM GHG-1 would require future commercial developers to design buildings with GHG reducing measures. However, since no development is currently proposed, the specific measures that could be employed to reduce GHG emissions are unknown and cannot be quantified. MM GHG-2 would require future development to meet the state's Zero Net Energy standards, if the standards are adopted prior to commencement of construction. MM TRAN-1 would require a traffic demand management plan, which would reduce mobile source emissions by 39.3 MT CO₂e per year. Impacts for the proposed project remain significant and unavoidable.

Threshold (b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The plans, policies, or regulations adopted for the purpose of reducing GHG emissions that are applicable to the proposed project include the District CAP and the long-term statewide emissions reduction goals.

Project Level – Wetland Mitigation Bank

SAN DIEGO UNIFIED PORT DISTRICT CLIMATE ACTION PLAN

The District CAP is the applicable plan adopted for the purpose of reducing GHG emissions. The CAP focuses on reducing ongoing annual GHG emissions from activities within the District. The addition of the project's amortized construction emissions of 88.0 MT CO₂e to the existing annual District emissions (826,429 MT CO₂e in 2006) during construction activities would result in a negligible contribution to annual District GHG emissions. Therefore, the project would not have an impact on the District's abilities to achieve emissions reduction goals. The CAP includes the recommended emissions reduction measures. As shown in Table 3.7-5, the creation of the wetland mitigation bank would be consistent with the applicable emissions reduction measures. Therefore, the wetland mitigation bank would be consistent with the District CAP and impacts would be less than significant.



Table 3.7-5. Project Level – Consistency with Applicable Climate Action Plan Measures

Measure	Project Consistency
TR3. Vehicle Idling: Enforce state idling laws for commercial vehicles, including delivery and construction vehicles.	Consistent. Project level activities would be required by law to comply with state idling laws for construction vehicles.
SW1. Increase the diversion of solid waste from landfill disposal.	Consistent. Operation of the wetland mitigation bank would not result any the production of solid waste. Construction of the wetland mitigation bank would result in the export of 537,500 cubic yards of soil. The project would export soil for reuse to the extent possible. Any soil that is deemed not suitable for reuse due to contamination would be disposed of at a regulated facility equipped to handle contaminated soils. The project would not result in other construction debris that would be sent to the landfill.

LONG-TERM STATEWIDE EMISSIONS REDUCTION GOALS

EO B-30-15 establishes a statewide emissions reduction target of 40 percent below 1990 levels by 2030, which was signed into law by SB 32, and a statewide emissions reduction target of 80 percent below 1990 levels by 2050. According to the most recent data in the 2017 Scoping Plan, the state has achieved its goal of meeting 1990 levels by the 2020 goal set by AB 32 (CARB 2017).

As discussed under Threshold (a), the wetland mitigation bank’s short-term construction and long-term operational emissions would be well below the 900 MT of CO₂e per year screening threshold established by the county. Therefore, the wetland mitigation bank would not conflict with the GHG reduction goals of the state. Impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. This impact analysis evaluates a reasonable development scenario for Parcels A, B, and C, which is a future commercial land use and relies on the reasonable development assumptions identified in Chapter 2, Project Description.

SAN DIEGO UNIFIED PORT DISTRICT CLIMATE ACTION PLAN

Table 3.7-6 provides the future commercial development consistency with applicable District CAP GHG reduction measures. Before mitigation, the program-level components would not be consistent with the District CAP because it would not implement all of the applicable reduction measures. The proposed project would be required to implement mitigation measures to ensure consistency with the District’s CAP.

MM TRAN-1 would require a traffic demand management plan be prepared and implemented. MM GHG-1 would require the future commercial developers to design buildings with sustainable building standards to maximize energy efficiency and reduce GHG emissions. Implementation of these mitigation measures would ensure future commercial development is consistent with the applicable GHG reduction measures in the District’s CAP.

Table 3.7-6. Program Level – Consistency with Applicable Climate Action Plan Measures

Measure	Project Consistency
TR3. Vehicle Idling: Enforce state idling laws for commercial vehicles, including delivery and construction vehicles.	Consistent. Program level activities would be required by law to comply with state idling laws for construction vehicles.
TV1. Implement trip reduction programs, such as: ride sharing, telecommuting and alternative work schedules, commute trip reduction marketing, and employer-sponsored vanpool/shuttle	Inconsistent (Consistent After Mitigation). MM TRAN-1 (Section 3.13, Transportation) requires project proponents implement a traffic demand management plan that promotes ride-sharing and vanpooling and provides subsidies for transit passes to reduce worker trips and parking demand.
EB1. Establish green building standards and/or policy for new construction.	Inconsistent (Consistent After Mitigation). MM GHG-1 requires commercial development applicants to develop and implement sustainable building standards to maximize energy efficiency.
EB3. Develop energy efficiency performance standards that achieve a greater reduction in energy use than otherwise required by state law.	Inconsistent (Consistent After Mitigation). MM GHG-1 requires commercial development applicants to develop and implement sustainable building standards to maximize energy efficiency.
EL1. Develop and implement performance standards for exterior lighting of commercial and industrial buildings and parking lots, which include minimum and maximum lighting levels while providing a safe environment.	Inconsistent (Consistent After Mitigation). MM GHG-1 requires commercial development applicants to use energy efficient appliances and lighting.
WR1. Recycled water use. Establish programs and policies to increase the capture and use of recycled water.	Inconsistent (Consistent After Mitigation). MM GHG-1 requires commercial development applicants to minimize domestic water demand from the city system for landscaping purposes. .
EA2. Implement on-site renewable energy generation policy for 2035 (solar power, wind power, CH ₄ recovery, wave power, etc.).	Inconsistent (Consistent After Mitigation). MM GHG-1 requires commercial development applicants to incorporate energy efficiency design features and implement onsite renewable energy to new buildings if feasible.
EA3. Implement on-site renewable energy generation policy for by 2050 (solar power, wind power, CH ₄ recovery, wave power, etc.).	Inconsistent (Consistent After Mitigation). MM GHG-1 requires commercial development applicants to incorporate energy efficiency design features and implement onsite renewable energy to new buildings if feasible.
SW1. Increase the diversion of solid waste from landfill disposal.	Consistent. The project would be consistent with state laws, including AB 939, which mandates waste diversion target of 25 percent of all solid waste from landfills. Additionally, the project would be compliant with the City of San Diego’s Construction and Demolition Debris Deposit Ordinance.



Table 3.7-6. Program Level – Consistency with Applicable Climate Action Plan Measures

Measure	Project Consistency
SW3. Develop policy to reduce the generation of solid waste.	Consistent. The project would be consistent with state laws, including AB 939, which mandates waste diversion target of 25 percent of all solid waste from landfills. Additionally, the project would be compliant with the City of San Diego’s Construction and Demolition Debris Deposit Ordinance.

Notes:

AB=Assembly Bill; CH₄=methane; MM=mitigation measure

LONG-TERM STATEWIDE EMISSIONS REDUCTION GOALS

Similar to the project-level discussion, construction of future commercial development would be subject to EO B-30-15. As discussed under Threshold (a), the short-term construction and long-term operational emissions associated with the future commercial developments would potentially exceed the 900 MT of CO₂e per year screening threshold established by the county. Therefore, future commercial developments could conflict with the GHG reduction goals of the state.

MM GHG-1 would require the future commercial developer(s) to design buildings with sustainable building standards to maximize energy efficiency and reduce GHG emissions. Because no development is proposed at this time, the specific measures that could be employed are unknown. Therefore, the amount of emissions that could be reduced by implementing MM GHG-1 is not quantifiable. MM GHG-2 would require new development to meet the state’s Zero Net Energy standards; however, the standard has not been adopted yet. The CPUC’s California Energy Efficiency Strategic Plan has the goal of all new commercial construction be Zero Net Energy by 2030. Impacts remain significant and unavoidable after incorporation of MM GHG-1.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM GHG-1 Greenhouse Gas Emission Reducing Design.

MM GHG-2 Electric Heating and Zero Net Energy Building.

MM TRAN-1 Implement Traffic Demand Management Measures. For details, see Section 3.13, Transportation.

Significance after Mitigation

The creation of the wetland mitigation bank would result in 88.0 MT of CO₂e per year, which is below the 900 MT of CO₂e per year screening threshold established by the county and would not conflict with the District CAP or GHG reduction goals of the state. Under a reasonable development scenario of Parcels A, B, and C being developed with 105,000 square feet, combined construction and operational emissions would result in 2,581.7 MT of CO₂e per year. The amortized construction

emissions associated with the wetland mitigation bank would add 88.0 MT of CO₂e per year to the 2,909.6 MT of CO₂e per year generated by the construction and operation of the future commercial development. The total annual emissions of 2,997.6 MT of CO₂e would exceed the 900 MT of CO₂e per year screening threshold established by the county. Future commercial development would conflict with the District CAP and GHG reduction goals of the state. MM GHG-1 would require the future commercial developers to design buildings with GHG reducing measures and implement sustainability measures from the District CAP. However, since no development is currently proposed, the measures that could be employed to reduce GHG emissions are unknown and cannot be quantified. MM GHG-2 would require new development to meet the state's Zero Net Energy standards if the standards are adopted prior to commencement of construction. MM TRAN-1 would require a traffic demand management plan which would reduce mobile source emissions by 39.3 MT CO₂e per year. Impacts from the proposed project remain significant and unavoidable.

3.8 Hazards and Hazardous Materials

3.8.1 Overview

This section describes the existing conditions and applicable laws, regulations, and policies associated with hazards and hazardous materials, as well as an analysis of the potential effects resulting from implementation of the proposed project. The project site encompasses both project components. Information contained in this section is summarized from the Phase I Environmental Site Assessment (ESA) prepared by Kleinfelder dated June 25, 2018 (Appendix J), and the Soil Assessment Report prepared by Kleinfelder dated June 27, 2019 (Appendix H).

3.8.2 Existing Conditions

The project site consists of approximately 95 acres of mostly undeveloped land. The project site is divided into three main areas: the Bank Parcel; Parcels A, B, and C; and the berm breach location. The project-level wetland mitigation bank would be developed within the existing Pond 20 salt pond berms within the Bank Parcel and would breach the berm within the berm breach area to connect tidal flow. Parcels B and C would be utilized as staging areas for the construction of the wetland mitigation bank. The program-level component includes Parcels A, B, and C.

Within the Bank Parcel is the southern portion of the former salt pond, Pond 20. Earthen berms surround Pond 20, which were built to hold and evaporate water (see Figure 2-3 in Chapter 2, Project Description). These berms were also used as access roads. Remnants of prior structures from the salt works infrastructure (i.e., support posts from walking docks) are visible. Within the berms of Pond 20 are disturbed upland salt flats and isolated hypersaline pools perched on fill material. Parcel A is undeveloped and is comprised of non-native grasslands and a drainage. Parcel C is undeveloped and comprised of non-native grasslands. The southern portion of Parcel B is a former VMT Auto Sales lot and consists of a paved parking area and a billboard. All structures associated with the VMT Auto Sales have been removed. The northern portion of Parcel B is undeveloped and comprised of non-native grasslands. There are no other structures on the project site besides the billboard.

Terminology

For purposes of this section, the term “hazardous materials” refers to both hazardous substances and hazardous wastes. A “hazardous material” is defined by federal regulations as “a substance or material that ... is capable of posing an unreasonable risk to health, safety, and property when transported in commerce” (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

Hazardous material means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

Hazardous wastes are defined in California Health and Safety Code Section 25141(b) as wastes that:

...because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness, [or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific criteria listed in the CCR Title 22. Cleanup requirements are determined on a case-by-case basis by the agency with lead jurisdiction over the project. Under CCR Title 22, the term “hazardous substance” refers to both hazardous materials and hazardous wastes, both of which are classified according to four properties: (1) toxicity; (2) ignitability; (3) corrosiveness; and (4) reactivity (CCR Title 22, Chapter 11, Article 3).

The Phase I ESA included an evaluation of the project site for indications of Recognized Environmental Conditions (REC). The Phase I ESA was conducted in accordance with the scope and limitations of the American Society for Testing and Materials International (ASTM) Practice E1527-13. The ASTM Practice E1527-13 includes the following definition for RECs:

REC – The presence, or likely presence, of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment, (2) under conditions indicative of a release to the environment, or (3) under conditions that pose a material threat of a future release to the environment.

Hazardous Materials Database Results

As discussed in the Phase I ESA prepared by Kleinfelder, a commercial database service, Environmental Data Resources, conducted a search of the specific databases outlined by the ASTM Standard within the appropriate ASTM International minimum search distance of the project site (Appendix J). The project site was not identified in any database searches. Off-site listings are included in Table 3.8-1 and depicted on Figure 3.8-1. None of the sites listed in Table 3.8-1 are identified as RECs to the project site.

Table 3.8-1. Off-site Contamination Sites Listed on Hazardous Materials Databases

No.	Site Name	Site Name	Database Listing	Site Summary	Status
1	Resco Self Storage	Resco Self Storage	SLIC, San Diego County SAM	The facility is reported to have impacted groundwater with waste/motor/hydraulic/lubricating oil. The property has been used since early 1980s for storage of commercial vehicles and heavy equipment. In March 2004, the facility received a letter of “No Further Action” from San Diego County Department of Environmental Health.	No further action needed March 2004



Table 3.8-1. Off-site Contamination Sites Listed on Hazardous Materials Databases

No.	Site Name	Site Name	Database Listing	Site Summary	Status
2	7 Eleven Food Stores	7 Eleven Food Stores	EMI, SLIC, San Diego County SAM, San Diego County HMMD, UST, HIST UST	The facility is listed to have, or historically have contained unleaded gasoline USTs of varying size and grades. In April 1992, a release of unleaded gasoline from a LUST had an impact on an unidentified media.	Case Closed October 1992
3	Fast Lube	Fast Lube	LUST, SLIC, San Diego County SAM, San Diego County HMMD, UST, HIST Cortese	The facility is reported to have, or historically have, contained waste oil, motor oil, regular unleaded gasoline, and leaded gasoline USTs. A release from a UST in 1987 impacted surrounding soil only.	Case closed February 1987
4	ASAP Oil Exchange & Smog	ASAP Oil Exchange & Smog	LUST, SLIC, San Diego County SAM, San Diego County HMMD, HIST Cortese	The facility is reported to have, or historically maintained a waste oil UST with a capacity of 550 gallons. A release of waste/motor/hydraulic/lubricating oil is listed to have impacted only soil at the facility.	Case closed September 1991
5	Pacific Bell	Pacific Bell	Resource Conservation and Recovery Act – small quantity generators, HIST UST, FINDS, Enforcement and Compliance History Information	The facility is recorded to historically contain small quantities of diesel.	No releases reported at this facility
6	ARCO #09563	ARCO #09563	San Diego County SAM, HIST UST, EMI	The facility is recorded to have impacted the drinking water aquifer between 1995 and 2010.	Case closed 2011
7	William E. Lin DDS/Saturn Cleaners	William E. Lin DDS/Saturn Cleaners	SLIC, San Diego County SAM, San Diego County HMMD, FINDS, EMI, HAZNET	The listing is under the name William E. Lin DDS; however, the case is likely in relation to an adjacent dry cleaner named Saturn Cleaners. The facility listed a spill of chlorinated hydrocarbons.	Case closed January 2004

Source: Kleinfelder 2018

Notes:

EMI=Emissions Inventory Data; FINDS=Facility Index System; HAZNET=Facility Manifest Data; HIST=historical; HMMD=Hazardous Material Management Division; LUST=leaking underground storage tank; SAM=Site Assessment and Mitigation; SLIC=Spills, Leaks, Investigations, and Cleanups; UST=underground storage tank;

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Figure 3.8-1. Contamination Sites Listed on Hazardous Materials Database



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Recognized Environmental Conditions

The Phase I ESA identified four on-site RECs in connection to the project site. These four RECs are described below:

- In 1963, an oil and gas well was drilled in the central portion of the project site. The well was deemed dry and abandoned on September 12, 1963.
- Effluent from storm water outfalls located on and directly adjacent to the project site that could impact soil and water quality beneath the project site.
- Previous soil characterization report that identified concentrations of arsenic in soil samples exceeding the effects range low (ERL).
- The VMT Auto Sales facility contains a floor drain within a covered limited maintenance area. The floor drain travels via an underground pipe and empties onto the southeast portion of the Bank Parcel.

Soil Assessment

The Soil Assessment Report (Appendix H) considered the potential for excavated on-site soils associated with the creation of the wetland mitigation bank to be reused on site, transported off site for reuse at an alternative location, or transported off site for disposal. A total of 32 test pits and 12 hand auger samples were excavated and tested (Figure 3.8-2). Not all soil on site has to the potential to be reused on site, rather the following sample locations were evaluated for potential reuse on site within the mitigation bank: HA-3, HA-4, HA-5, HA-6, HA-7, HA-12, HA-13, TP-3, TP-4, TP-12, and TP-23. Soils to be reused on site were evaluated by comparing the environmental analytical results of metals, total petroleum hydrocarbons (TPH), and organic contaminants for several test pit and hand auger samples to the ERL. All excavated soil associated with the creation of the wetland mitigation bank may be exported; therefore, all sampling locations were evaluated for off-site export. For off-site export, the test pit and hand auger metal, TPH, and organic contaminants results were compared to the U.S. EPA Region 9 Regional Screening Levels (RSL) for composite worker soil, Department of Toxic Substances Control (DTSC) modified screening levels for commercial/industrial soil, hazardous waste criteria, and the San Diego RWQCB Tier 1 Soil Screening Levels (SSL).

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Figure 3.8-2. Soil Assessment Report Sampling Locations



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On-site Soil Reuse

Based on the results of the on-site soil testing, the Soil Assessment Report concluded that site soils in the majority of areas planned for possible on-site reuse appear to be suitable for this purpose. However, targeted locations in the vicinity of the eastern 12-inch storm drain outfall, former VMT Auto Sale facility, and at TP-23 may not be suitable. Table 3.8-2 summarizes testing sites which were determined either not to be suitable for on-site reuse or requiring further investigation prior to on-site reuse. The Soil Assessment Report also concluded additional investigation and remediation, if appropriate, be performed at the former VMT Auto Sales facility to address TPH-impacted soil.

Table 3.8-2. Environmental Analytical Results for On-site Soil Reuse (Metals, Total Petroleum Hydrocarbons, and Organics)

Testing Site	Location on Project Site	Contaminant	Concentration (mg/kg)	ERL (mg/kg)	Conclusion
TP-23	Main subtidal channel area	Copper	44	34	May be suitable for reuse on site – ACOE consultation recommended
HA-3	Eastern 12-inch storm drain outfall	Arsenic	8.6J	8.2	Below DTSC upper-bound background concentration of 12 mg/kg - ACOE consultation recommended
HA-5	VMT Auto Sales Facility	Copper	98	34	Not suitable for on-site reuse
		Lead	250	46.7	Not suitable for on-site reuse
		Nickel	23	20.9	Not suitable for on-site reuse
		Zinc	350	150	Not suitable for on-site reuse
		TPH-Diesel	1244	NE	Results exceed the U.S. EPA Regional Screening Level for composite worker soil and would not be suitable for on-site reuse
		4,4-DDE	0.0025 (SPLP-ND)	0.00022	Not suitable for on-site reuse

Table 3.8-2. Environmental Analytical Results for On-site Soil Reuse (Metals, Total Petroleum Hydrocarbons, and Organics)

Testing Site	Location on Project Site	Contaminant	Concentration (mg/kg)	ERL (mg/kg)	Conclusion
		4,4-DDT	0.0047 (SPLP-ND)	0.00158	Not suitable for on-site reuse
HA-6	VMT Auto Sales Facility	Lead	93	46.7	Not suitable for on-site reuse
HA-7	VMT Auto Sales Facility	Silver	3.3	1	Not suitable for on-site reuse

Source: Appendix J of this EIR

Notes:

ACOE=United States Army Corps of Engineers; DDE=dichlorodiphenyldichloroethylene; DDT=dichlorodiphenyltrichloroethane; DTSC=Department of Toxic Substances Control; ERL=effects range low; HA=hand auger; mg/kg=milligram/kilogram; ND=not detected above laboratory reporting limits; NE=screening limit not established; SPLP=synthetic precipitation leaching procedure; TP=test pit; TPH=total petroleum hydrocarbons; U.S. EPA=United States Environmental Protection Agency;

Off-site Soil Reuse or Disposal

The Soil Assessment Report concluded all test pit samples appear to be suitable for unrestricted off-site reuse. Based on the narrow range of arsenic concentrations for all reported test pit samples, it is likely that this is representative of background conditions at the site and, in addition, none exceeded the DTSC background concentration. The 90 percent Upper Confidence Limits were calculated for lead (6.02 milligram/kilogram [mg/kg]) and vanadium (35.77 mg/kg); these concentrations are below the Tier 1 SSLs for lead (15 mg/kg) and vanadium (50 mg/kg). The two organic contaminants, dimethyl phthalate and bis (2-ethylhexyl) phthalate were detected at several test pit samples; however, the Soil Assessment Report concluded this was due to laboratory contamination.

Only one hand auger sample exceeded the U.S. EPA RSL. This was at sample HA-5 and was for TPH-Diesel. The soil at sampling location HA-5 could not be used for off-site reuse and would be exported to an acceptable landfill. The samples at HA-8 and HA-9 may have been impacted by the former oil well activities and would not be suitable for off-site reuse. The remaining hand auger locations identified in Table 3.8-3 may require additional investigation of soils before off-site reuse. All excavated material at these locations would be subject to the various export screening criteria.



Table 3.8-3. Environmental Analytical Results for Off-site Soil Export (Metals, Total Petroleum Hydrocarbons, and Organics)

Testing Site	Location on Project Site	Contaminant	Concentration (mg/kg)	Criteria (mg/kg) ^a	Conclusion
HA-1	Northwestern berm	SVOCs	Exceed worker and waiver 10 Tier I SSL due to detectable organic concentrations		Additional investigation required prior to off-site reuse
HA-2	Northwestern berm	SVOCs	Exceed worker and waiver 10 Tier I SSL due to detectable organic concentrations		Additional investigation required prior to off-site reuse
		Vanadium	56	50	
HA-3	Eastern 12-inch storm drain outfall	Vanadium	56	50	Additional investigation required prior to off-site reuse
		Bis(2-ethylhexyl) phthalate	0.014	Exceed	
HA-4	Eastern 12-inch storm drain outfall	Lead	19	15	Additional investigation required prior to off-site reuse
			29		
		Molybdenum	4.5	2	
		TPH-D	135	Exceed	
			152		
		TPH-O	534	Exceed	
717					
Bis(2-ethylhexyl) phthalate	0.236	Exceed			
	0.382				
	0.0078				
bisphenol A	0.132	Exceed			
	0.0146				
HA-12	Eastern 12-inch storm drain outfall	Molybdenum	2.5	2	Additional investigation required prior to off-site reuse
		Vanadium	53	50	
HA-5	VMT Auto Sales Facility	Chromium	51	50	
		Copper	98	60	

Table 3.8-3. Environmental Analytical Results for Off-site Soil Export (Metals, Total Petroleum Hydrocarbons, and Organics)

Testing Site	Location on Project Site	Contaminant	Concentration (mg/kg)	Criteria (mg/kg) ^a	Conclusion
		Lead	250	15	Additional investigation required prior to off-site reuse
			26		
		Molybdenum	8.7	2	
		Zinc	350	149	
		TPH-Diesel	1244	440 ^b	Not suitable for off-site reuse
		TPH-Oil	2207	Exceed	Additional investigation required prior to off-site reuse
		4, 4-DDE	0.0025 (SPLP-ND)	Exceed	
		4,4-DDT	0.0047 (SPLP-ND)	Exceed	
		alpha-Chlordane	0.0057 (SPLP-ND)	Exceed	
		gamma-Chlordane	0.032 (SPLP-ND)	Exceed	
		Chlordane	0.026 (SPLP-ND)	Exceed	
		Bis(2-ethylhexyl) phthalate	2.19	Exceed	
		Butyl benzyl phthalate	0.914	Exceed	
		Di-n-butyl phthalate	0.543	Exceed	
Di-n-octyl phthalate	0.192	Exceed			
HA-6	VMT Auto Sales Facility	Lead	93	15	Additional investigation required prior to off-site reuse
		Vanadium	51	50	
HA-7	VMT Auto Sales Facility	Silver	3.3	2	Additional investigation required prior to off-site reuse
		Lead	24	15	
HA-8	Former Oil and Gas Well	Dimethyl phthalate	0.3, 0.25	Exceed	Not suitable for off-site reuse



Table 3.8-3. Environmental Analytical Results for Off-site Soil Export (Metals, Total Petroleum Hydrocarbons, and Organics)

Testing Site	Location on Project Site	Contaminant	Concentration (mg/kg)	Criteria (mg/kg) ^a	Conclusion
HA-9	Former Oil and Gas Well	TPH-Diesel	12	Exceed	Not suitable for off-site reuse
		TPH-Oil	15	Exceed	

Source: Appendix J of this EIR

Notes:

^a Waiver 10 Tier 1 SSL screening limit criteria only available for metals. For TPH and Organics only exceedance of detectable organic concentrations noted as “exceed.”

^b Exceeds U.S. EPA RSLs

DDE=dichlorodiphenyldichloroethylene; DDT=dichlorodiphenyltrichloroethane; HA=hand auger; mg/kg=milligram/kilogram; ND=not detected above laboratory reporting limits; SPLP=synthetic precipitation leaching procedure; SSL=soil screening limit; SVOC=semi-volatile organic compound; TP=test pit; TPH=total petroleum hydrocarbons;

Geotechnical Evaluation

Soil collected from the test pits were composited on lithology observed at the time of sampling. Based on the physical and chemical properties, as well as relative sample depths of each composited test pit soil sample, 6 unique soil units were identified to assist with future soil management. The lateral extent of each soil unit was estimated by creating polygons around each test pit location using the Thiessen interpolation method (see Figures 7.1 through 7.6 in Appendix H).

Emergency Response Plan

Emergency response plans include elements to maintain continuity of government, emergency functions of governmental agencies, mobilization and application of resources, mutual aid, and public information. Emergency response plans are maintained at the federal, state, and local level for all types of disasters, including human-made and natural. It is the responsibility of government to undertake an ongoing comprehensive approach to emergency management in order to avoid or minimize the effects of hazardous events. Local governments have the primary responsibility for preparedness and response activities.

The San Diego County Operational Area Emergency Operations Plan is for use by the County and all of the cities within the county to respond to major emergencies and disasters. Cities are encouraged to adopt the Operational Area Emergency Operations Plan as their own, with modifications for their city. The plan is updated every four years, most recently in 2018.

The San Diego Fire-Rescue Department (SDFD) oversees the City of San Diego’s Emergency Management Services. In the case of major incident such as an earthquake, flood, or terrorist act, the City of San Diego’s Emergency Management Services would respond. The SDFD is also responsible for the preparation, maintenance, and execution of Fire Preparedness and Management Plans and participates in multi-jurisdictional disaster preparedness efforts. The SDFD’s Emergency Command and Data Center is located in Kearny Mesa and is staffed 24 hours a day, 7 days a week.

Fire Hazard

California Department of Forestry and Fire Protection (CAL FIRE) maps fire hazard areas based on fuels, terrain, weather, and factors that increase an area's susceptibility to wildfires (vegetation, type, slope, and atmospheric conditions). The project is not located in or near state responsibility areas or lands classified as Very High Fire Hazard Severity Zone as recommended by CAL FIRE (CAL FIRE 2009).

3.8.3 Applicable Laws, Regulations, and Policies

Federal

Federal Toxic Substances Control Act, Resource Conservation and Recovery Act, and Hazardous and Solid Waste Act

The U.S. EPA enforces the Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA), which regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle to grave" system of regulating hazardous wastes (controlling hazardous waste from the time it is generated until its ultimate disposal). The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by the Hazardous and Solid Waste Act.

Comprehensive Environmental Response, Compensation, and Liability Act

The 1980 Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as Superfund, provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. The Comprehensive Environmental Response, Compensation, and Liability Act establishes requirements concerning closed and abandoned hazardous waste sites; provides for liability of persons responsible for releases of hazardous waste at these sites; and establishes a trust fund to provide for cleanup when no responsible party can be identified.

United States Department of Transportation Hazardous Materials Regulations

Transportation of chemicals and hazardous materials is governed by the U.S. Department of Transportation (DOT), which stipulates the types of containers, labeling, and other restrictions to be used in the movement of such materials on interstate highways. CFR Title 49, Parts 100-185 cover all aspects of hazardous materials packaging, handling, and transportation. Enforcement of these regulations is shared by several administrations, including Research and Special Programs Administration, FHWA, Federal Railroad Administration, Federal Aviation Administration, and U.S. Coast Guard.

Occupational Safety and Health Act of 1970

The Occupational Safety and Health Act, which is implemented by the Occupational Safety and Health Administration (OSHA), contains requirements, as set forth in Title 29 of the CFR Section 1910, that are designed to promote worker safety, worker training, and a worker's right-to-know. OSHA requirements would be in effect during construction and operation of the project to ensure the safety of workers. Title 49 of the CFR requires that every employee who transports hazardous materials

receive training to recognize and identify hazardous materials and become familiar with hazardous materials requirements.

State

California Code of Regulations, Title 22

Hazardous substances are regulated by state and federal agencies in order to protect public health and the environment. Hazardous materials have certain chemical, physical, or infectious properties that threaten life, health, property, or environment. The CCR Title 22 provides the following definition:

...A substance or combination of substances which because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or, (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed” (CCR, Title 22, Section 66260.10).

DTSC, a department of the California EPA, implements CCR Title 22, Division 4.5, which provides standards for the management of hazardous waste. The DTSC has the authority to delegate enforcement of the state’s hazardous waste regulations to local jurisdictions.

California Code of Regulations, Title 8

Title 8 of the CCR, Section 1532.1, is a federal rule developed by OSHA 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. Federal OSHA 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. 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.

Cortese List

California GC 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 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 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). The management of hazardous materials and waste within California is under the jurisdiction of the California EPA. California EPA is responsible for developing, implementing, and enforcing the state's environmental protection laws that ensure clean air, clean water, clean soil, safe pesticides, and waste recycling and reduction.

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 and Section 13260(a) of the California Water Code also require 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.

California Fire Code (California Code of Regulations, Title 24, Part 9)

The California Fire Code combines the Uniform Fire Code with amendments necessary to address California's unique needs. The CBC includes regulations which are consistent with nationally recognized standards of good practice, intended to facilitate protection of life and property. Among other things, its regulations address the mitigation of the hazards of fire explosion, management and control of the storage, handling and use of hazardous materials and devices, mitigation of conditions considered hazardous to life or property in the use or occupancy of buildings, and provisions to assist emergency response personnel.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Health and Safety Code)

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 (DEH) 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.** 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 a Spill Prevention Control and Countermeasure (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 off-site consequences through hazard identification, planning, source reduction, maintenance, training, and engineering controls.
- **Hazardous Materials Business Plan (HMBP).** HMBP contain basic information regarding the location, type, quantity, and health risks of hazardous materials and/or waste. Businesses that handle hazardous materials, including hazardous waste, at reportable quantities are required to prepare a HMBP and electronically submit the HMBP through the California Environmental Reporting System. The reportable quantities are equal to or greater than:
 - 500 pounds of a solid 55 gallons of a liquid;
 - 200 cubic feet of a compressed gas;
 - A hazardous compressed gas in any amount (highly toxic with a Threshold Limit Value of ≤ 10 ppm); or
 - Extremely hazardous substances above the threshold planning quantities.
- **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 on-site treatment of hazardous waste.

Regional

San Diego County Code, Title 6, Division 8

The County of San Diego DEH-HMD acts as the local CUPA responsible for implementing and enforcing California hazardous materials laws and regulations, described above. In addition to the state requirements, the facility operator is required to submit a Hazardous Materials Questionnaire to the HMD and complete an HMD Hazardous Materials Plan Check review prior to issuance of a certificate of occupancy by a Building Department.

The HMD, as the CUPA for San Diego County, is also responsible for regulating facilities that generate or treat hazardous wastes. A proper waste determination is required for any and all constructed related wastes including, fuels, greases, use oil, soil exports, and debris. Each waste must be classified, labeled, handled, stored, and disposed of in compliance with state and county regulations. Any hazardous waste must be properly classified, labeled, stored, and disposed of by a California

registered hazardous waste hauler. A Unified Program Facility Permit may be required for the accumulation and storage of these wastes.

County of San Diego, Site Assessment and Mitigation Program

The County of San Diego DEH maintains the Site Assessment and Mitigation (SAM) list of contaminated sites that have previously or are currently undergoing environmental investigations or remedial actions. San Diego County SAM Program, within the Land and Water Quality Division of the DEH, has a primary purpose to protect human health, water resources, and the environment within San Diego County by providing oversight of assessments and cleanups in accordance with the California Health and Safety Code and the CCR. The SAM's Voluntary Assistance Program also provides staff consultation, project oversight, and technical or environmental report evaluation and concurrence (when appropriate) on projects pertaining to properties contaminated with hazardous substances.

Operational Area Emergency Plan

Emergency response plans are maintained at the federal, state, and local level for all types of disasters, including human made and natural. Emergency response plans include elements to maintain continuity of government, emergency functions of governmental agencies, mobilization, and application of resources, mutual aid, and public information. The Unified San Diego County Emergency Services Organization has the primary responsibility for preparedness and response activities and addresses disasters and emergency situations within the unincorporated area of San Diego County. The County of San Diego Office of Emergency Services serves as staff to the Unified Disaster Council, the governing body of the Unified San Diego County Emergency Services Organization.

Local

San Diego Unified Port District's Best Management Practices Design Manual

As directed under the new Municipal Separate Storm Sewer Systems (MS4) permit (Order No. R9-2015-0100), the District's Standard Urban Stormwater Mitigation Plan was replaced with a BMP Design Manual. The District BMP Design Manual provides updated procedures for planning, selecting, and designing permanent structural stormwater BMPs based on specific performance standards outlined in the permit. Project applicants must submit a Storm Water Quality Management Plan (SWQMP) accurately describing how the project would meet source control site design and pollutant control BMP requirements. District staff 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.

City of San Diego Solid Waste Local Enforcement Agency

The City of San Diego'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 (PRC) 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.

Jurisdictional Runoff Management Plan

Under RWQCB Order No. R9-2013-0001, NPDES Permit No. CAS0109266, the 18 cities within San Diego County, along with the District, are required to prepare 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); and
- 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, nonstormwater 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.

3.8.4 Environmental Impacts

This section presents the methodology applied for the evaluation, the significance criteria used for considering project impacts related to hazards and hazardous materials, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level component includes a PMPA to incorporate Parcels A, B, and C into the PMP, which requires a land use designation be assigned. The parcels are proposed to be assigned a commercial recreation land use designation. At this time, no construction or operational activities is proposed on Parcels A, B, and C. The impact analysis below evaluates a reasonable scenario of commercial development on Parcels A, B, and C. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to a CDP and project approval, and any additional CEQA compliance.

Methodology

The analysis contained in this section is based on the Phase I ESA and Soil Assessment Report prepared by Kleinfelder for the project (Appendices H and J). The preparation of the Phase I ESA included an environmental records review; a data gap analysis; historical research, which included a review of Sanborn Fire Insurance Maps, historical aerial photographs, and a city directory; a site reconnaissance of the project study area; and a review of applicable online databases. Impacts associated with hazards and hazardous materials that could result from project construction and

operational activities were evaluated qualitatively based on site conditions of the project site, proximity of the project site to documented RECs, and expected construction practices. The Soil Assessment Report was prepared to evaluate the environmental and geotechnical suitability of the project site soil for on-site reuse, off-site reuse, and off-site disposal.

A review of fire severity maps prepared by CAL FIRE was also conducted to determine the project's direct and indirect risk relative to wildfires.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to hazards and hazardous materials are considered significant if any of the following occur:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- b) 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
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school
- d) Be located on a site which is 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
- e) For a project located 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, result in a safety hazard or excessive noise for people residing or working in the project area
- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (c), (d), and (e) would result in no impact for the project-level wetland mitigation bank creation and program-level PMPA, and therefore, are not included in the analysis below (see Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR).

Impact Analysis

Threshold (a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Project Level – Wetland Mitigation Bank

Construction of the wetland mitigation bank would involve excavation, grading, and soil export activities to establish appropriate topographical conditions and tidal flows to support target marsh plain elevations, as well as construction of an earthen berm on the northern perimeter of the project site. Construction, fueling, and servicing of construction equipment may involve the use of hazardous

materials and wastes, including the transport, storage, and disposal of commercially available hazardous materials such as gasoline, brake fluids, and coolants. Additionally, excavated contaminated soil may be hauled and disposed of at an off-site landfill.

The handling of such materials would occur during short-term construction activities and would be subject to federal, state, and local health and safety requirements. As described in Section 3.8.3, applicable regulations include RCRA, which regulates generation, transportation, treatment, storage, and disposal of hazardous waste; U.S. DOT, which stipulates the types of containers, labeling, and restrictions to be used in the movement of such materials on interstate highways; the Hazardous Waste Control Act, which includes environmental health standards for the management of hazardous waste, as well as standards for the identification of hazardous waste, and standards that are applicable to transporters of hazardous waste; and the California Health and Safety Code, which assigns a local CUPA (County of San Diego DEH-HMD) who is responsible for implementing and enforcing California hazardous materials laws and regulations. Construction of the wetland mitigation bank would not require storage of petroleum on-site at 1,320 gallons or greater; therefore, an SPCC is not required. Operation of the wetland mitigation bank would be limited to monitoring of restoration success criteria and long-term maintenance, both of which would require limited visits to the project site by a small number of vehicles and would not require handling of such materials.

The creation of the wetland mitigation bank would not have the potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. Similar to the discussion under the Project Level - Wetland Mitigation Bank section, construction of future commercial development would require the use of construction equipment that may be fueled or serviced on site. This would involve the use of hazardous materials and wastes, including the transport, storage, and disposal of commercially available hazardous materials such as gasoline, brake fluids, and coolants. The handling of such materials would occur during short-term construction activities and would be subject to federal, state, and local health and safety requirements, as described above, including RCRA, U.S. DOT, Hazardous Waste Control Act, and the California Health and Safety Code.

While specific development on Parcels A, B, and C has not been identified, the PMP allows for the following uses under the commercial recreation land use designation: hotels, restaurants, convention center, recreational vehicle parks, specialty shopping, pleasure craft marinas, water-dependent educational and recreational program facilities and activities, dock and dine facilities, and sportfishing. Development of any of these land uses would likely involve transport, use, and disposal of hazardous materials associated with routine commercial cleaning and maintenance for these land uses. However, similar to construction of the wetland mitigation bank, the transport, use, and disposal of these materials would be handled in compliance with all applicable laws and regulations, as described above, and would not create a significant hazard to the public or the environment. Furthermore, these materials would not be used in quantities such that they would pose an environmental risk.

Construction and operation of future commercial development of Parcels A, B, and C would not have the potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials and impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

Threshold (b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.

Project Level – Wetland Mitigation Bank

Construction of the wetland mitigation bank would involve excavation, grading, and soil export activities to establish appropriate topographical conditions and tidal flows to support target marsh plain elevations, as well as construction of an earthen berm on the northern perimeter of the project site. As discussed in Section 3.8.2, the project site is not listed in any hazardous materials database. However, the Phase I ESA and Soil Assessment Report (Appendices H and J) found environmental contaminants in the soil planned for on-site reuse and off-site export.

According to the Draft Wetland Restoration of Salt Pond 20: Basis of Design Report (Appendix M of Appendix C to this EIR), the estimated gross quantities of soil to be excavated includes a combination of mass excavation for the marsh-plain grading (405,000 cubic yards), berm-breach excavation (6,000 cubic yards), and excavation to form the tidal channels (43,000 cubic yards), for a total of 454,000 cubic yards. Approximately 24,000 cubic yards of soil from the marsh-plain grading and tidal-channel excavation would be reused on site as fill material for the transition slope along the interior of the existing perimeter berms. Approximately 430,000 cubic yards of soil would be transported off site for either off-site reuse or disposal.

As shown in Table 3.8-2 and Table 3.8-3, several sample sites contain environmental contaminants, including metals, TPHs, and organic contaminants. Table 3.8-2 and Table 3.8-3 summarize when the concentration of contaminants at specific sampling locations exceed the screening criteria for adverse biological effects, as well as for composite worker soil, commercial and industrial soils, and exposure levels for on-site workers after redevelopment. Soil found at these sampling locations may not be suitable for on-site reuse or off-site reuse due to potential adverse biological effects and exposure of workers to unacceptable exposure levels. Additionally, the extent of the contamination is unknown beyond the sampling locations.

ON-SITE SOIL REUSE

The soil tested for potential on-site reuse included seven hand auger locations and four test pit locations. Of those 11 locations, 6 locations were determined to be suitable for on-site reuse. TP-23, located in the main subtidal channel area may be suitable for on-site reuse after consultation with ACOE. TP-23 was sampled down to 10 feet bgs, and copper was only found to exceed the ERL between 5 to 8 feet bgs. HA-3, located near the eastern 12-inch storm drain, had an exceedance of arsenic. HA-5, HA-6, and HA-7 are located at the former VMT Auto Sales facility. All three of these

locations exceeded applicable concentration of various contaminants. The Soil Assessment Report recommended a Voluntary Assistance Program case be opened, and additional investigation and remediation, if appropriate, be performed at the former VMT Auto Sales facility. Hazardous materials have been identified on site that could result in a significant hazard to the public or environment. In the event excavation activities extend into any existing contaminated soils over the appropriate screening thresholds, there is a potential that hazardous materials could be released into the environment and expose workers to an unacceptable exposure level. This is a potentially significant impact. MM HAZ-1 would require a soil management plan that includes a Characterization Report, Testing and Profiling Plan, and Disposal Plan, which would ensure proper identification and handling of contaminated soils. MM HAZ-2 would require a site worker Health and Safety Plan to ensure site workers are not exposed to contaminated soil. Implementation of MM HAZ-1 and MM HAZ-2 would reduce impacts to a less than significant level.

OFF-SITE SOIL REUSE OR DISPOSAL

All excavated soil on site has the potential for export, either for off-site reuse or disposal at a landfill; therefore, all sampling locations were evaluated for off-site export. All 32 test pit sampling locations were identified to be suitable for unrestricted off-site reuse. Of the 12 hand auger locations, only 3 were identified as not suitable for off-site reuse and would need to be disposed of at an appropriate landfill. Seven hand auger locations require additional investigation prior to off-site reuse, and two hand auger locations were identified as suitable for unrestricted off-site reuse. Similar to the soil tested for on-site reuse, hazardous material has been identified on site that could result in a significant hazard to the public or environment. In the event excavation activities extend into any existing contaminated soils over the appropriate screening thresholds, there is a potential that hazardous materials could be released into the environment and expose workers to an unacceptable exposure level. This is a potentially significant impact. MM HAZ-1 would require a soil management plan that includes a Characterization Report, Testing and Profiling Plan, and Disposal Plan, which would ensure proper identification and handling of contaminated soils. MM HAZ-2 would require a site worker Health and Safety Plan to ensure site workers are not exposed to contaminated soil. Implementation of MM HAZ-1 and MM HAZ-2 would reduce impacts to a less than significant level.

OPERATION

As discussed in Chapter 2, Project Description, operation of the wetland mitigation bank would be limited to monitoring of restoration success criteria (one vehicle monthly for 5 years) and long-term maintenance (one vehicle annually), both of which would require limited visits to the project site by a small number of vehicles. Operation of the wetland mitigation bank would not create a significant hazard to the public or the environment and impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. As discussed in Section 3.8.2, Parcel B contains the former VMT Auto Sales facility, which is the source of several contaminants found to exceed screening criteria. Similar to the discussion under the Project-Level – Wetland Mitigation Bank section, soil around the VMT Auto Sales facility may result in adverse biological effects and exposure of workers to unacceptable exposure levels. This is a potentially significant impact. MM HAZ-1 would require a Soil Management Plan that includes a Characterization Report, Testing and Profiling Plan, and Disposal Plan, which would ensure proper

identification and handling of contaminated soils. MM HAZ-2 would require a site worker Health and Safety Plan to ensure site workers are not exposed to contaminated soil. Implementation of MM HAZ-1 and MM HAZ-2 would reduce impacts to less than significant.

While the Soil Assessment Report (Appendix H) did not collect any samples on Parcels A or C because soil within these parcels would not be used in the creation of the wetland mitigation bank, the record searches conducted for the Phase I ESA (Appendix J) included Parcels A and C and concluded there are no hazardous material sites on these parcels. Additionally, according to the historic aerial photos in the Phase I ESA, Parcels A and C and the northern portion of Parcel B have never been developed.

If contaminated soils are located on Parcels A, B, and C and are not identified prior to construction activities along with measures to ensure their safe removal, the environment and on-site workers may be exposed to contaminants. This is a potentially significant impact. MM HAZ-1 would require a Soil Management Plan that includes a Characterization Report, Testing and Profiling Plan, and Disposal Plan, which would ensure proper identification and handling of contaminated soils. MM HAZ-2 would require a site worker Health and Safety Plan to ensure site workers are not exposed to contaminated soil. Implementation of MM HAZ-1 and MM HAZ-2 would reduce impacts to less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

MM HAZ-1 Prepare and Implement a Soil Management Plan. Prior to construction, the project proponent shall retain a licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer with experience in contaminated-site restoration to prepare and submit a Soil Management Plan to the District for review and approval. After the District's review and approval, the project proponent shall implement the Soil Management Plan.

The plan shall include general provisions for how soils shall be managed within the project site. The plan shall ensure that soil requiring additional testing is identified and any soils that contain contaminants over the screening thresholds are properly managed. The plan shall address CCR Title 22 and Section 13260(a) of the California Water Code. The Soil Management Plan shall include the following:

- A *Site Contamination Characterization Report* (Characterization Report) delineating the vertical and lateral extent and concentration of residual contamination from the site's past uses. The Characterization Report shall include a compilation of data based on historical records review and from prior reports and investigations and, where data gaps are found, include new soil sampling to characterize the existing vertical and lateral extent and concentration of residual contamination. The project applicant shall coordinate with the County of San Diego Department of Health if the Characterization Report identifies contamination.
- A *Soil Testing and Profiling Plan* (Testing and Profiling Plan) for those materials that would be reused on site, reused off site, or disposed of during construction. Testing shall occur for all potential contaminants of concern, which shall include CA Title 22 metals, VOCs, and TPH at a minimum, and may also include polyaromatic hydrocarbons, pesticides, polychlorinated biphenyls, or any other suspected potential contaminants. For on-site soil reuse, the Testing and Profiling Plan shall document testing results compared to the ERL thresholds for adverse

biological effects (Long et al. 1995). For off-site soil reuse, the Testing and Profiling Plan shall document compliance with applicable screening criteria, which may include U.S. EPA Region 9 RSLs for composite worker soil, DTSC Modified screening levels for commercial and industrial soils, and Tier 1 SSLs contained in RWQCB San Diego Region Order No R9-2014-0041, Conditional Waivers of Waste Discharge Requirements for Low Threat Discharges in the San Diego Region (Waiver 10, Section B(4)). However, off-site reuse screening criteria may be site specific. For off-site disposal, 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 off-site disposal facility. All excavation activities shall be actively monitored by a licensed Professional Geologist, Professional Engineering Geologist, or Professional Engineer for the potential presence of contaminated soils and for compliance with the Testing and Profiling Plan.

- A *Soil Disposal Plan* (Disposal Plan), which shall describe the process for excavation, stockpiling, dewatering, treating, and loading and hauling of soil from the site. This plan shall be prepared in accordance with the Testing and Profiling Plan (i.e., in accordance with CA Title 22 and U.S. DOT Title 40 CFR Part 263), Section 13260(a) of the California Water Code and current industry best practices for the prevention of cross contamination, spills, or releases. Measures shall include, but not be limited to, segregation into separate piles for waste profile analysis based on organic vapor, and visual and odor monitoring. Alternatively, soil shall be fully characterized *in situ*, prior to excavation, and may be loaded directly for transport and reuse or disposal in lieu of stockpiling.

General soil management controls to be implemented by the contractor and the following topics shall be addressed within the Soil Management Plan:

- Dust control
- Management of soil stockpiles
- Stormwater erosion control using BMPs, as specified in a SWPPP

MM HAZ-2 Prepare and Implement a Site Worker Health and Safety Plan. Prior to construction, the project proponent shall prepare and submit a Site Worker Health and Safety Plan (Safety Plan) to the District for review and approval. The Safety Plan shall 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 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.

PROGRAM LEVEL– PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM HAZ-1 Prepare and Implement a Soil Management Plan.

MM HAZ-2 Prepare and Implement a Site Worker Health and Safety Plan.

Significance after Mitigation

Implementation of MM HAZ-1 would require a Soil Management Plan, that includes a Characterization Report, Testing and Profiling Plan, and Disposal Plan, which would ensure proper identification, handling, and disposal of contaminated soils. Implementation of MM HAZ-2 would require a Site Worker Health and Safety Plan to ensure compliance with Hazardous Waste Operations and Emergency Response regulations for site workers. With implementation of MM HAZ-1 and MM HAZ-2, impacts related to the potential creation of a significant hazard to workers, the public, or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant for the proposed project.

Threshold (f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Project Level – Wetland Mitigation Bank

Construction of the wetland mitigation bank would take approximately 17 months, during which the peak number of 36 construction personnel would be on site. Construction staging, including personnel parking, would be located on Parcels A, B, or C. Haul trucks would be entering and exiting the project site during clearing and grubbing, mass grading, and fine grading construction activities. No road closures are needed to complete construction activities. The proposed project would be required to comply with applicable requirements set forth by County of San Diego Office of Emergency Services Operational Area Emergency Plan. 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. As discussed in Section 3.12, Public Services, existing area fire stations have capacity to provide service to the project site. Construction of the wetland mitigation bank would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan because no road closures are proposed and the project site would be served by local fire stations. Therefore, impacts during construction would be less than significant.

Operation of the wetland mitigation bank would be limited to monitoring of restoration success criteria and long term maintenance, both of which would require limited visits to the project site by a small number of vehicles. Operation of the wetland mitigation bank would not impact implementation of or physically interfered with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts during operation would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. Response times from fire and police is not anticipated to be affected by the proposed project because the 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. Additionally, as discussed in Section 3.12, Public Services, the existing fire stations would have sufficient capacity to provide service to the project site. Future commercial development is anticipated to be in compliance with the County of San Diego Office of Emergency Services Operational Area Emergency Plan because the existing fire stations would have capacity to serve the project site, and the project does not propose

any characteristics that would interfere with the emergency plan. Impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

Threshold (g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires

Project Level – Wetland Mitigation Bank

The project site is located near the San Diego Bay and comprised of disturbed upland salt flats and isolated hypersaline pools perched on fill material. The project is not located in or near state or local responsibility areas or lands classified as Very High Fire Hazard Severity Zone, as recommended by the CAL FIRE (CAL FIRE 2009). The creation of a wetland mitigation bank proposes neither occupation of individuals nor structures that would place individuals near wildland fires. Therefore, the creation of a wetland mitigation bank would not result in exposing people or structures to a significant risk of loss, injury, or death involving wildland fires, including those adjacent to urbanized areas and where residences are intermixed. Impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. Similar to the discussion under the Project Level - Wetland Mitigation Bank section above, the project site is not located in or near state or local responsibility areas or lands classified as Very High Fire Hazard Severity Zone, as recommended by CAL FIRE. Construction and operation of future commercial development on the project site would be adjacent to established urban areas and would not expose people or structures to wildland fires. Furthermore, project facilities would be designed, constructed, and operated in accordance with applicable fire protection and other environmental, health, and safety requirements, including the California Fire Code and CBC. Impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

3.9 Hydrology and Water Quality

3.9.1 Overview

This section describes the existing hydrology and water quality conditions and applicable laws, regulations, and policies associated with hydrology and water quality, as well as an analysis of the potential effects resulting from implementation of the proposed project. Information contained in this section is summarized from Hydrodynamic Modeling Report, prepared by Environmental Science Associates in June 2020 (Appendix K).

3.9.2 Terminology

This section defines the key concepts and terminology used to describe hydrodynamic modeling. Definitions for these terms are from the FHWA Hydraulic Engineering Circular No. 18 (HEC-18) and HEC-25.

Erosion: The deterioration of land by the action of natural forces. This includes tidal currents.

Scour: Erosion of streambed or bank material due to flowing water; often considered as being localized. Scour is the engineering term for the erosion of the soil surrounding a bridge foundation or substructure (piers and abutments) caused by water.

Velocity: The time rate of flow usually expressed in meters/second (feet/second). The average velocity is the velocity at a given cross section determined by dividing discharge by cross-sectional area.

Unit shear force (shear stress): The force or drag developed at the channel bed by flowing water. For uniform flow, this force is equal to a component of the gravity force acting in a direction parallel to the channel bed on a unit wetted area.

Contraction Scour: Contraction scour, in a natural channel or at a bridge crossing, involves the removal of material from the bed and banks across all or most of the channel width. This component of scour results from a contraction of the flow area at the bridge which causes an increase in velocity and shear stress on the bed at the bridge. The contraction can be caused by the bridge or from a natural narrowing of the stream channel.

Bridge Substructural: Structural elements supporting a bridge in contact with the stream or channel bed, including bridge abutments, piers, and footings.

Scour prism: Total volume of stream bed material removed by scour in the bridge reach (area of flow under the bridge) for design flood conditions.

Tidal prism. Volume of water contained in a tidal bay, inlet, or estuary between low- and high-tide levels.

3.9.3 Existing Conditions

Surface Water Hydrology

The project site is located within the jurisdiction of the San Diego RWQCB for surface hydrology and water quality management. The San Diego Region is divided into 11 hydrologic units (HU) 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 Management Area and more specifically is within the Otay HU.

The Otay watershed is one of the smaller watersheds in the San Diego region and is located in the southern portion of San Diego County. The Otay HU covers approximately 154 square miles. The Otay River drains north-facing slopes of the San Ysidro Mountains and the southerly slopes of the Jamul Mountains. The outlet of the Otay River is in the southernmost portion of the San Diego Bay.

Several municipalities have jurisdiction over portions of the watershed, including the County of San Diego, Chula Vista, San Diego, Coronado, Imperial Beach, and National City. About 70 percent of the watershed is open and undeveloped, 10 percent is agriculture, and 20 percent is urban or industrial land uses (RWQCB 2007).

Surface Water Quality

The Otay River is the immediate receiving water body for the project site and outlet for the Otay River is the San Diego Bay approximately 1.15-mile downstream, as shown on Figure 3.9-1. As detailed in Table 3.9-1, both the Otay River and the San Diego Bay have RWQCB-designated beneficial uses of surface water. The San Diego RWQCB lists multiple locations of San Diego Bay as an impaired water body for toxicity and bioaccumulation per the CWA Section 303(d). Alternatively, the Otay River is not listed on the CWA Section 303(d) list.

Figure 3.9-1. Existing Receiving Water Bodies



Source: Appendix K of this EIR

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Drainage Patterns

Parcels A, B, and C are currently undeveloped with the exception of the southern portion of Parcel B, which is a vacant paved parking lot. The Bank Parcel is also undeveloped and does not contain paved surfaces; however, as part of the former salt evaporation operations, berms were constructed around Pond 20 and a thick impermeable clay layer was placed to hold water and prevent leaching of water from the pond. The surrounding area includes dense urban development and associated infrastructure (e.g., roads, sidewalks, gutters).

On Parcel A there is a storm drain that collects stormwater from 13th Street and drains into the Otay River Tributary. Along Palm Avenue there is a 48-inch storm drain outfall in the southwest corner of the project site, and two 12-inch storm drains along the southern edge of the project site. These storm drains outfall into the Otay River Tributary and collect stormwater from Palm Avenue and the surrounding neighborhood.

Groundwater

The project site is in the Coastal Plain of San Diego Groundwater Basin (Basin Number 9-033). The Coastal Plain of San Diego Groundwater Basin underlies the cities of San Diego, National City, Chula Vista, Imperial Beach, and San Ysidro in southwestern San Diego County and the boundary represents the area underlain by the San Diego Formation. The Coastal Plain of San Diego Groundwater Basin is bound on the west by the San Diego Bay and the Pacific Ocean, on the south by the international border with Mexico, on the north by the alluvium of the Mission Valley Basin, and on the east by the La Nacion fault and the lateral extents of the San Diego Formation and the alluvial areas in Otay Valley and Sweetwater Valley. The surface waters are drained westerly towards the Pacific Ocean by the Sweetwater River, the Otay River, the Tijuana River, and various creeks. Average annual precipitation ranges from about 12 to 20 inches (Department of Water Resources 2018).

Groundwater at the project site has been encountered at depths ranging from approximately 3 to 9 feet below existing site grades (Appendix H). Groundwater elevations are dependent on seasonal precipitation, irrigation, and land use, among other factors, and vary as a result. The groundwater on the project site should be considered brackish due to the site's proximity to the San Diego Bay and Pacific Ocean (Appendix I).

Water-Related Hazards

Federal Emergency Management Agency Flood Hazards

Flood hazard are identified by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM). As depicted on Figure 3.9-2 (FEMA FIRM No. 06073C2153H), the project site is located within Flood Zone AE in Floodway (1 percent annual chance flood hazard), Flood Zone AE and A (1 percent annual chance flood hazard), and Flood Zone X (0.2 percent annual chance flood hazard). Additionally, portions of the project site are within a special flood hazard area and the northeast portion of the Bank Parcel and the western portion of Parcel C are within a Regulatory Floodway.

Special flood hazard areas are located within the 100-year floodplain and are defined as any area that has a 1 percent chance of flooding in any given year. Smaller scale floods (50-year and 10-year floods) have a greater chance of occurring in any given year.

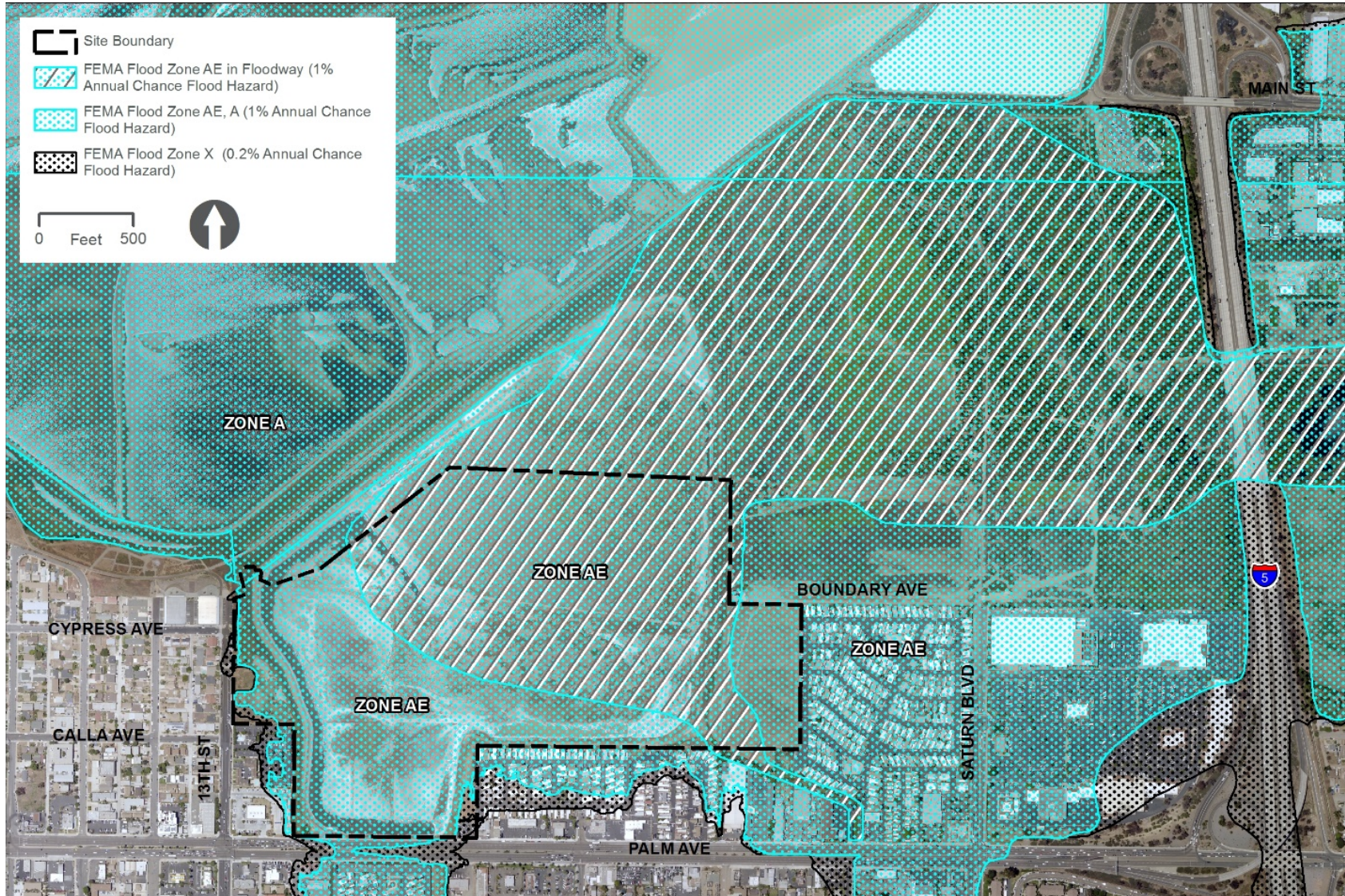
A Regulatory Floodway means the channel of a river and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Communities must regulate development in these floodways to ensure that there are no increases in upstream flood elevations.

For streams and other watercourses where FEMA has provided Base Flood Elevations but no floodway has been designated, the community must review floodplain development on a case-by-case basis to ensure that increases in water surface elevations do not occur, or identify the need to adopt a floodway if adequate information is available.

Hydrodynamic Modeling Results

As detailed in the *Hydrodynamic Modeling Report*, prepared by Environmental Science Associates, the 100-year storm event was modeled under existing conditions to identify the flood dynamics of the project site. As depicted on Figure 3.9-3, water initially overtops the banks of the Otay River channel causing shallow inundation of the properties along the river upstream of the project site (upper left panel, 22.75 hours into simulation). As flood waters continue to rise, model results indicate that water would then overtop the existing Pond 20 berm from the south along Bayside Palm Mobilehome Village and the Pond 22 berm (upper right panel, 23.25 hours into simulation). Higher water levels in the Otay River would then overtop into Ponds 48 and 20 (north) around the north pedestrian bridge (bottom left panel, 23.50 hours into simulation). After 27 hours, Pond 22 would eventually fill up and overflow into the adjacent Ponds 21, 23, 24, and 27 (bottom right panel, 25 hours into simulation). When that happens, Pond 20 is also completely inundated. As maximum flood water levels are reached, Ponds 22 and 23 spill back into the Otay River further downstream of the Bayshore Bikeway Bridge. As water levels drop in the Otay River, model results indicate many of the ponds remain full of stormwater.

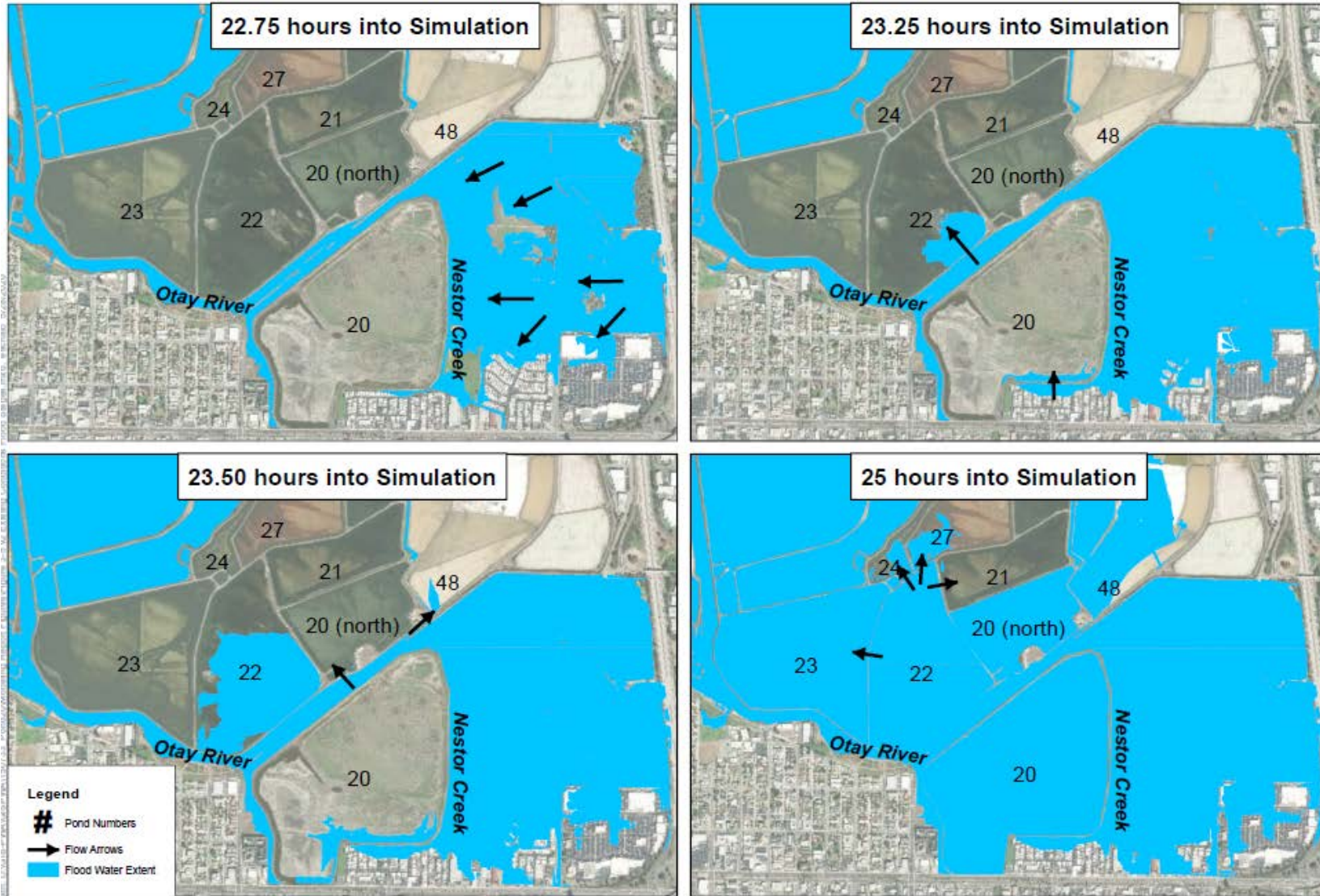
Figure 3.9-2. Federal Emergency Management Agency Flood Zone Map



Source: FEMA 2019

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Figure 3.9-3. Existing Conditions 100-Year Storm Event Flood Stages



Source: Appendix K of this EIR

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Seiches and Tsunamis

A seiche is a run-up of water within a lake or embayment triggered by fault- or landslide-induced ground displacement. The project site is approximately 1 mile from the San Diego Bay and therefore potential for seiches is considered low (Appendix I).

A tsunami is a series of long-period waves generated in the ocean by a sudden displacement of large volumes of water caused by underwater earthquakes, volcanic eruptions, or offshore slope failures. The project site is not within the tsunami inundation zone according to the State of California Tsunami Inundation Map for Emergency Planning (California Emergency Management Agency 2009).

3.9.4 Applicable Laws, Regulations, and Policies

Federal

Clean Water Act

The U.S. EPA is the lead federal agency responsible for managing water quality. The CWA of 1972 is the primary federal law that governs and authorizes the USEPA and the states to implement activities to control water quality. The various elements of the CWA that address water quality and are applicable to the projects are discussed below. Under federal law, the U.S. EPA has published water quality regulations under Title 40 of the CFR.

SECTION 303

Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the U.S. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question; and (2) criteria that protect the designated uses.

CWA Section 303(d) requires states to develop lists of water bodies that will not attain water quality standards after implementation of minimum required levels of treatment by point-source dischargers. Section 303(d) requires states to develop a Total Maximum Daily Load (TMDL) for each of the listed pollutants and water bodies. A TMDL is the amount of loading that the water body can receive and still be in compliance with applicable water quality objectives and applied beneficial uses. TMDLs can also act as a planning framework for reducing loadings of a specific pollutant from various sources to achieve compliance with water quality objectives. TMDLs prepared by the state must include an allocation of allowable loadings to point and nonpoint sources, with consideration of background loadings and a margin of safety. The TMDL must also include an analysis that shows links between loading reductions and the attainment of water quality objectives.

SECTION 304

CWA Section 304(a) requires the U.S. EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. The U.S. EPA is the federal agency with primary authority for implementing regulations adopted under the CWA. The U.S. EPA has delegated the State of California the authority to implement and oversee most of the programs authorized or adopted for CWA compliance through the Porter-Cologne Water Quality Control Act of 1969 (Porter-Cologne Act), which states that the SWRCB has the ultimate authority over state water rights and water quality policy.

SECTION 401

Under CWA Section 401, applicants for a federal license or permit to conduct activities that may result in the discharge of a pollutant into waters of the U.S. must obtain a water quality certification from the SWRCB in which the discharge would originate or, if appropriate, from the interstate water pollution control agency with jurisdiction over affected waters at the point where the discharge would originate.

SECTION 402

CWA Section 402 establishes the NPDES permit program to control point source discharges from industrial, municipal, and other facilities if their discharges are directly to surface waters. The 1987 amendments to the CWA created a new section of the CWA devoted to regulating stormwater or nonpoint source discharges (Section 402[p]). In California, the EPA has delegated the SWRCB responsibility for issuing both general and individual permits for discharges from certain activities with the authority generally administered by the RWQCB.

SECTION 404

CWA Section 404 establishes a permit program for the discharge of dredge or fill materials into waters of the U.S. This permit program is administered by the ACOE. Project sponsors must obtain authorization from ACOE for all discharges of dredged or fill materials into waters of the U.S. 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.

Federal Emergency Management Agency

FEMA administers the National Flood Insurance Program to provide subsidized flood insurance to communities that comply with FEMA regulations that limit 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 covered by the FIRMs is established by FEMA, with the minimum level of flood protection for new development determined to be the 1-in-100 (0.01) annual exceedance probability (i.e., the 100-year flood event).

State

Porter-Cologne Water Quality Act

The Porter-Cologne Act is California's statutory authority for the protection of water quality. Under this act, the state must adopt water quality policies, plans, and objectives that protect the state's waters. The act sets forth the obligations of the SWRCB and San Diego RWQCB pertaining to the adoption of Water Quality Control Plans and establishment of water quality objectives. Unlike the federal CWA, which regulates only surface water, the Porter-Cologne Act relates surface water, groundwater, and discharges to land.

National Pollutant Discharge Elimination System Construction Permits

Construction activities are regulated under the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit, NPDES Order No.2012-0006-DWQ) which covers stormwater runoff requirements for projects where the total amount of ground disturbance during construction exceeds 1 acre.

Coverage under a General Construction Permit requires the preparation of a SWPPP and submittal of an NOI to the RWQCB to comply with the General Construction Permit.

The SWPPP is required to include a description of BMPs to minimize the discharge of pollutants from the sites during construction. Typical BMPs include temporary soil stabilization measures (e.g., mulching and seeding), storage of materials and equipment to ensure that spills or leaks cannot enter the storm drain system or stormwater, and using filtering mechanisms at drop inlets to prevent contaminants from entering storm drains. Typical post-construction management practices include street sweeping and cleaning stormwater drain inlet structures.

The NOI includes site-specific information and the certification of compliance with the terms of the General Construction Permit. The Bank Parcel, and Parcels A and C would exceed the 1 acre threshold and, therefore, would be subject to the requirements of the General Construction Permit.

Regional

San Diego Regional Water Quality Control Board Basin Plan

The San Diego RWQCB Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all region waters. Each of the nine regional boards in California is required to adopt a Basin Plan, which recognizes and reflects regional differences in existing water quality, the beneficial uses of the region's ground and surface waters, and local water quality conditions and problems. Specifically, the Basin Plan:

- Designates beneficial uses for surface and ground waters;
- Sets 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;
- Describes implementation programs to protect the beneficial uses of all waters in the region; and
- Describes surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan.

Beneficial uses of surface water and groundwater have been established for each water body within the San Diego Basin, which includes the entire San Diego Region 9 area. According to the RWQCB Basin Plan:

- Beneficial uses are defined as the uses of water necessary for the survival or well-being of man, plants, and wildlife. The uses of water serve to promote the tangible and intangible economic, social, and environmental goals of mankind.
- Examples include the drinking, swimming, industrial, and agricultural water supply, and the support of fresh and saline aquatic habitats. According to the Basin Plan, beneficial uses have been designated for specific coastal water bodies, inland surface waters, and groundwater.

The project site is located in proximity to the Otay River and San Diego Bay. Table 3.9-1 shows the designated beneficial uses for each of these water bodies.

Table 3.9-1. Beneficial Uses of Project Affected Surface Water

Beneficial Use	Beneficial Use Definition	Otay River	San Diego Bay
Agricultural supply	Includes uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.	Existing	—
Industrial service supply	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.	Potential	Existing
Navigable	Includes uses of water for shipping, travel, or other transportation by private, military, or commercial vessels.	—	Existing
Contact water recreation	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.	Potential	Existing
Non-contact water recreation	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.	Existing	Existing
Commercial and sport fishing	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.	—	Existing
Preservation of biological habitats or special significance	Includes uses of water that support designated areas or habitats.	—	Existing
Estuarine habitat	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).	—	Existing
Wildlife habitat	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.	Existing	Existing



Table 3.9-1. Beneficial Uses of Project Affected Surface Water

Beneficial Use	Beneficial Use Definition	Otay River	San Diego Bay
Rare, threatened, or endangered species	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.	Existing	Existing
Marine habitat	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).	—	Existing
Migration of aquatic organisms	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.	—	Existing
Spawning, reproduction, and/or early development	Includes uses of water that support high-quality habitats suitable for reproduction, early development, and sustenance of marine fish and/or cold freshwater fish.	—	Existing
Shellfish harvesting	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.	—	Existing

Source: RWQCB 2016

Regional General Municipal Stormwater Permit

The San Diego RWQCB has adopted an area-wide Municipal Stormwater Permit (MS4), Order No. R9-2013-0001, NPDES No. CAS0109266, as amended by Order Nos. R9-2015-0001 and R9-2015-0100, “Waste Discharge Requirements for Discharges from the MS4 Draining the Watersheds within the San Diego Region.”

Under this area-wide Municipal Stormwater Permit, municipalities are ultimately held responsible for everything in their stormwater conveyance systems, including industrial and construction stormwater runoff. Order No. R9-2013-0001, as amended by Order Nos. R9-2015-0001 and R9-2015-0100, presents guideline requirements for the control of pollutants resulting from stormwater and urban runoff from all areas named in NPDES Permit No. CAS0109266.

The RWQCB specifically requires co-permittees to inventory existing stormwater pollution control programs, illicit discharge detection programs, monitor programs and data, stormwater conveyance system maps, land use maps, and existing laws, ordinances, and codes. The co-permittee (discharger) has the authority to implement and enforce stormwater management programs in their areas of jurisdiction and where necessary and to promulgate the authority to carry out all functions of the stormwater management programs.

The municipal stormwater permit requires co-permittees to utilize planning procedures, including a master plan to develop, implement, and enforce controls to reduce the discharge of pollutants from municipal separate storm sewers which receive discharges from areas of new development and significant redevelopment. This new permit addresses controls to reduce pollutants in discharges from municipal separate storm sewers after construction is completed. With respect to land use planning for new development and redevelopment, at a minimum, each co-permittee shall assess its general plan, modify development project approval processes, revise environmental review processes, and conduct education efforts focused on new development and redevelopment to minimize the short and long-term impacts on receiving water quality.

Local

General Waste Discharge Requirements for Groundwater Extraction Discharges (Order No. R9-2015-0013)

RWQCB's Order No. R9-2015-0013 is intended to cover temporary discharges of groundwater extraction wastes to San Diego Bay, and its tributaries under tidal influence, from groundwater extraction due to construction and other groundwater extraction activities. Dischargers must meet the applicable criteria listed in the permit to be subject to waste discharge requirements under this permit. Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of the permit. The discharge of groundwater extraction waste from any site cannot, separately or jointly with any other discharge, cause violations of certain water quality objectives in San Diego Bay.

San Diego Bay Watershed Quality Improvement Plan

The Municipal Stormwater Permit requires the development of the San Diego Bay Watershed Quality Improvement Plan (WQIP). The purpose of the WQIP is to guide the District and other Phase I Municipalities' 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 HUs: Pueblo San Diego, Sweetwater River, and Otay River.

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 co-permittee prepares and submits an annual report that describes the implementation of programs and strategies to reduce the discharge of pollutants of concern to the MS4 and receiving waters to the maximum extent practicable.

The District's JRMP serves as an informational document that provides an overall account of the program to be conducted by the District during the 5-year life of the Municipal Permit. The District's JRMP has been developed to meet the conditions of the Municipal Permit and to assist the District in achieving the goals identified in the WQIP. Port-specific WQIP based strategies have been incorporated into the JRMP. The JRMP program's focus is on controlling stormwater discharges to the MS4 with the overall goal of achieving receiving water quality improvements. The 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.

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 WQIP Optional strategy PO-18,² the District requires sites to cover construction material stockpiles that contain metals, such as treated timber during wet weather. Table 3.9-2 lists the minimum BMPs required for all construction sites, depending on their applicability to the activity at hand.

Table 3.9-2. Minimum Best Management Practices for Construction Sites

BMP Category	BMP
Project Planning	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Water Conservation Practices (NS-1) • Illicit Connection/Illegal Discharge Detection and Reporting (NS-6)

¹ PO-12 calls for the implementation of the Core Jurisdictional Runoff Management Program (JRMP) Program to require and to oversee implementation of best management practices (BMP) during the construction phase of land development. PO-13 calls for the addition of a construction BMP that requires covering construction materials (metals and treated wood) during wet weather.

² Text in the JRMP identifies PO-18; however, there is a discrepancy between the text and PO-13 identified in Table 5.3 of the JRMP.

Table 3.9-2. Minimum Best Management Practices for Construction Sites

BMP Category	BMP
	<ul style="list-style-type: none"> • 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)
<p>Good Housekeeping/ Waste Management</p>	<ul style="list-style-type: none"> • 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)
<p>Erosion Control^a (choose at least one or a combination based on site conditions)</p>	<ul style="list-style-type: none"> • 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



Table 3.9-2. Minimum Best Management Practices for Construction Sites

BMP Category	BMP
	<ul style="list-style-type: none"> • Permanent revegetation or landscaping as early as feasible
Sediment Control (choose at least one or a combination based on site conditions)	<ul style="list-style-type: none"> • Silt Fence (SE-1) • Street Sweeping and Vacuuming (SE-7) • Sand Bag Barrier (SE-8) • Storm Drain Inlet Protection (SE-10) • Sediment Trap (SE-3) • Sediment Basin (SE-2) • Check Dams (SE-4) • Fiber Rolls (SE-5) • Gravel Bag Berms (SE-6) • Compost socks and berms (SE-13)
Run-on and Runoff Control	<ul style="list-style-type: none"> • Protect site perimeter to prevent run-on from entering the site and site run-off

Source: San Diego Unified Port District 2018

Notes:

Alphanumeric descriptor next to the BMPs are referenced in the California Stormwater Best Management Practice Handbook Portal – Construction, July 2012 (<http://www.casqa.org>)

^a Erosion controls must be implemented in all inactive disturbed soil areas. An inactive disturbed soil areas 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 Port 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 for additional information.

BMP=best management practice; SWPPP=Storm Water Pollution Prevention Plan; WQIP=Watershed Quality Improvement Plan

COMMERCIAL AND INDUSTRIAL FACILITY BEST MANAGEMENT PRACTICES

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. These BMPs are listed below in Table 3.9-3.

Table 3.9-3. Best Management Practices for Commercial and Industrial Facilities

BMP Category	BMP
General operations and housekeeping	<ul style="list-style-type: none"> • Conduct routine inspections and proper maintenance of BMPs and stormwater conveyance • Properly dispose of debris from stormwater conveyance system • Conduct outdoor sweeping to adequately control dust and debris • Keep outdoor areas neat and clean
Non-stormwater management	<ul style="list-style-type: none"> • Keep facility clear of illicit connections and illegal discharges • Keep site clear of unauthorized non-stormwater discharges, including irrigation runoff • Have spill response materials available at the facility
Waste handling and recycling:	<ul style="list-style-type: none"> • Keep waste containers at acceptable levels (not overflowing) • Properly dispose of hazardous waste • Properly maintain specialized waste areas • Keep waste containers covered or lids closed
Outdoor material storage	<ul style="list-style-type: none"> • Keep stored materials containers closed and secure • Minimize outside storage areas • Keep materials stored under overhead cover or within secondary containment
Outdoor drainage from indoor activity	<ul style="list-style-type: none"> • Keep facility clear from indoor activity being tracked outdoors
Vehicles and equipment	<ul style="list-style-type: none"> • Keep facility clear of leaking fluids from vehicles and equipment • Regularly conduct preventive maintenance on all vehicles and equipment • Have absorbent booms or spill materials available when fueling vehicles and equipment onsite • Capture, contain, or treat all vehicle and equipment wash water
Education and training	<ul style="list-style-type: none"> • Train employees in stormwater, spill response, and pollution prevention
Outdoor activity and operation	<ul style="list-style-type: none"> • Keep outdoor activity and operation area clean from spills and debris • Capture, contain, or treat all wash water

Notes:
 BMP=best management practices



San Diego Unified Port District 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 (PDP) 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 SWQMP accurately describing how the project would 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 District’s BMP Design Manual does not apply to the creation of the wetland mitigation bank because the project does not meet the definition of new development or redevelopment due to no new impervious surfaces. The SWQMP applicability form is attached as Appendix L to this EIR; however, future commercial development on Parcels A, B, and C would be PDPs and would require a SWQMP. Future commercial development would be required to implement the standard source control and site design BMPs described in Table 3.9-4.

Table 3.9-4. Source Control and Site Design Requirements for All Development Projects

Performance Standard Category	Performance Standard
General Requirements	All projects shall meet the following general requirements: <ul style="list-style-type: none"> (a) 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; (b) Structural BMPs must not be constructed within waster of the U.S.; and (c) Onsite BMPs must be designed and implemented with measures to avoid the creation of nuisance or pollution associated with vectors (e.g., mosquitos, rodents, or flies)

Table 3.9-4. Source Control and Site Design Requirements for All Development Projects

Performance Standard Category	Performance Standard
<p>Source Control Requirements (Pollutant source control BMPs are features that must be implemented to address specific sources of pollutants)</p>	<p>The following source control BMPs must be implemented at all development projects where applicable and technically feasible:</p> <ul style="list-style-type: none"> (a) Prevention of illicit discharges into the MS4 (b) Storm drain system stenciling or signage; (c) Protection of outdoor material storage areas from rainfall, run-on, runoff, and wind dispersal; (d) Protection of materials stored in outdoor work areas from rainfall, run-on, runoff, and wind dispersal; (e) Protection of trash storage areas from rainfall, run-on, runoff, and wind dispersal; and (f) Use of any additional BMPs determined to be necessary by the Port to minimize pollutant generation at each project.
<p>Site Design Requirements (Site design requirements are qualitative requirements that apply to the layout and design of ALL development project sites (Standard Projects and PDPs))</p>	<p>Site Design performance standards define minimum requirements for how a site must incorporate LID BMPs, including the location of BMPs, and the use of integrated site design practices. The following site design practices must be implemented at all development projects, where applicable and technically feasible:</p> <ul style="list-style-type: none"> (a) Maintenance or restoration of natural storage reservoirs and drainage corridors (including topographic depressions, areas of permeable soils, natural swales, and ephemeral and intermittent streams); (b) 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.); (c) Conservation of natural areas within the project footprint including existing trees, other vegetation, and soils; (d) Construction of streets, sidewalks, or parking lot aisles to the minimum widths necessary, provided public safety is not compromised; (e) Minimization of the impervious footprint of the project; (f) Minimization of soil compaction to landscaped areas; (g) Disconnection of impervious surfaces through distributed pervious areas; (h) Landscaped or other pervious areas designed and constructed to effectively receive and



Table 3.9-4. Source Control and Site Design Requirements for All Development Projects

Performance Standard Category	Performance Standard
	infiltrate, retain, and/or treat runoff from impervious areas, prior to discharging to the MS4; <ul style="list-style-type: none"> (i) 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 MS4 and receiving waters; (j) Use of permeable materials for projects with low traffic areas and appropriate soil conditions; (k) Landscaping with native or drought-tolerant species; and (l) Harvesting and using precipitation.

Source: San Diego Unified Port District 2020

Notes:

BMP=best management practices; LID=low impact development; MS4=Municipal Separate Storm Sewer Systems; PDP=priority development projects

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.

San Diego Bay Integrated Natural Resources Management Plan

The INRMP is a long-term, collaborative strategy for managing the bay’s natural resources and is the primary means by which the U.S. Navy and District jointly plan natural resources work in San Diego Bay. The INRMP became a joint initiative with the District in recognition of the need for partnership in stewardship and compliance with environmental laws while supporting the ability of the U.S. Navy and the District to accomplish their mission-related work. Required by the Sikes Act Improvement Act of 1997 for the U.S. Department of Defense, an INRMP is the primary means by which natural resources compliance and stewardship priorities are set and funding requirements are determined. A commitment to implement priority projects, as funding permits, comes with the signatures in the front of the INRMP.

In 2002, the first INRMP for San Diego Bay was signed by the Commander, Navy Region Southwest; the Chair of the BPC; the Regional Administrator of NMFS; the Field Supervisor of USFWS; and the Regional Director of California Department of Fish and Game. The 2013 revision continues many of that plan’s objectives and strategies while expanding coverage on water quality, sediment quality, sustainable development, and other topics.

3.9.5 Environmental Impacts

This section presents the methodology applied for the evaluation, the significance criteria used for considering project impacts related to hydrology and water quality resources, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level component includes a PMPA to incorporate Parcels A, B, and C into the PMP, which requires a land use designation be assigned. The parcels are proposed to be assigned a commercial recreation land use designation. At this time, no construction or operational activities are proposed on Parcels A, B, and C. The impact analysis below evaluates a reasonable scenario of commercial development on Parcels A, B, and C. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to a CDP and project approval, and any additional CEQA compliance.

Methodology

Impacts of the project on surface water quality were analyzed using available information on existing hydrology and water quality conditions and comparing them to potential project-related effects. The Hydrodynamic Modeling Report, prepared by Environmental Science Associates in June 2020 (Appendix K) was utilized to determine project-related effects from flooding and erosion.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to hydrology/water quality are considered significant if any of the following occur:

- a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade groundwater water quality
- b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of basin
- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious services, in a manner which would:
 - (i) Result in substantial erosion or siltation on- or off-site?
 - (ii) Substantially increase the rate or amount of surface run off in a manner which would result in flooding on- or offsite;
 - (iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
or
- d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?
- e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (b), (c.iii), and (e) would result in a less than significant impact or no impact for the project-level wetland mitigation bank creation; therefore, they are not included in the analysis below (see Section 5.4, Effects Found Not to be Significant, of Chapter 5 of this EIR).

Impact Analysis

Threshold (a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.*

Project Level – Wetland Mitigation Bank

CONSTRUCTION

Construction of the wetland mitigation bank would involve soil disturbance from activities such as grading, excavation, dredging of the tidal channel, material stockpiling, and compaction. Up to approximately 80 acres would be subject to ground disturbance. As discussed in Chapter 2, Project Description, approximately 430,000 cubic yards of soil would be excavated and approximately 537,000 cubic yards, after expansion, exported off site for beneficial reuse to the extent feasible. The Bank Site perimeter berm on the southern edge of the ORERP wetland restoration site would be constructed prior to Bank Site excavation, which would prevent tidal and/or flood waters from entering the Bank Site during construction of the proposed project. This would reduce potential impacts to surface water quality; however, potential impacts to surface waters may result from sediment or pollution runoff from the construction site. Additionally, groundwater has been encountered at the project site at depths ranging from approximately 3 to 9 feet below existing grade. Some areas of the Bank Site would be excavated to a depth of 6 feet; therefore, there is a potential to encounter groundwater during excavation activities. The project would comply with the following applicable regulations regarding water quality:

NPDES Construction Permits. The project would disturb more than 1 acre of soil and would be required to obtain coverage under the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ (as amended by Order 2010-0014-DWQ and Order 2012-0006-DWQ) and prepare an SWPPP. The project SWPPP would be developed and implemented by a qualified SWPPP Developer. At a minimum, BMPs would include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants) 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 with the appropriate selection and schedule for turf, plants, and other landscaping vegetation.

In addition to the SWPPP, the District would be required to implement the construction BMPs identified in the District's JRMP, which are listed in Table 3.9-2. The BMP categories applicable to the wetland mitigation bank include:

- Project planning
- Non-stormwater management
- Good housekeeping/waste management
- Erosion control

- Sediment control
- Runon and runoff control

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.

San Diego Unified Port District BMP Design Manual. Per the District's stormwater requirements applicability checklist, a post-construction SWQMP is not required for the project because no impervious surfaces are being created.

CWA. The proposed project would be required to comply with several permit requirements to limit discharges of pollutants and non-stormwater discharges. The District would apply for a Nationwide Permit 27 for aquatic habitat restoration, enhancement, and establishment activities from the ACOE. To be authorized by this nationwide permit, the aquatic habitat restoration, enhancement, or establishment activity must be planned, designed, and implemented so that it results in aquatic habitat that resembles an ecological reference. The Nationwide Permit 27 would be required to be obtained prior to initiating construction activities for the proposed project.

In addition, a corresponding Water Quality Certification (Section 401 permit) from the RWQCB would be required by ACOE for Section 404 Permit issuance. Once the RWQCB deems a Section 401 permit 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 may be scheduled. The RWQCB-issued Water Quality Certification would specify additional methods for ensuring the protection of water quality during construction activities, including water quality monitoring requirements in order to meet the San Diego Basin Plan water quality objectives.

RWQCB Order No. R9-2015-0013. In the event groundwater dewatering is required, the proposed project would comply with Order No. R9-2015-0013, which requires dischargers to meet the applicable receiving water limitations based on water quality objectives contained in the Basin Plan.

Conclusion

The proposed project would comply with applicable regulations regarding water quality. Therefore, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, and impacts would be less than significant.

OPERATION

Once construction is complete, the Bank Site would be connected to the Otay River. The newly created wetlands would require approximately 5 years to achieve all performance standards required by the banking enabling instrument; however, the Bank Site would be stabilized and planted to prevent erosion, which could impact surface water quality. Additionally, no impacts to groundwater would occur once the wetland mitigation bank is operational. Impacts from operation of the wetland mitigation bank would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of "commercial recreation" would allow for commercial development of these parcels, subject to project-level review by the District. Any future project-level commercial development proposals would require discretionary action by the District, in the form of

either a CDP or a CCA exclusion, as well as the District's tenant improvement project plans. Development of these parcels would likely require ground disturbing that could potentially impact surface water or groundwater.

CONSTRUCTION

Construction of future commercial development would require ground disturbing activities. While construction methods and equipment are unknown, potential impacts to surface waters may result from sediment or pollution runoff from the construction site into the adjacent waterways, including the Otay River Tributary and Nestor Creek. Additionally, the potential to encounter groundwater exists due to the shallow groundwater found at the project site.

Similar to the creation of the wetland mitigation bank, if the project would disturb more than 1 acre of soil, the project proponent would be required to obtain coverage under the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ (as amended by Order 2010-0014-DWQ and Order 2012-0006-DWQ) and prepare a SWPPP. The project SWPPP would be developed and implemented by a qualified SWPPP Developer. At a minimum, BMPs would include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants) 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 District would be required to implement the construction BMPs identified in the District's JRMP, which are listed in Table 3.9-2. The BMP categories applicable to commercial development include:

- Project planning
- Non-stormwater management
- Good housekeeping/waste management
- Erosion control
- Sediment control
- Runon and runoff control

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.

In the event groundwater dewatering is required, the proposed project would comply with RWQCB Order No. R9-2015-0013, which requires dischargers to meet the applicable receiving water limitations based on water quality objectives contained in the Basin Plan.

Therefore, construction of future commercial development would not violate water quality standards or waste discharge requirements, and impacts would be less than significant.

OPERATION

Per the District's BMP Design Manual, a post-construction SWQMP must be prepared for the project. The SWQMP must accurately describe how the project would meet source control site design and pollutant control BMP requirements, which are listed in Table 3.9-4. 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. The BMP Design Manual includes performance standards for:

- General requirements;
- Source control requirements (pollutant source control BMPs are features that must be implemented to address specific sources of pollutants); and
- Site design requirements (including low impact development [LID] BMPs).

District staff review 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. When a specific project has been identified for Parcel A, B, or C, a SWQMP would be prepared for review and approval by District staff.

In addition, the JRMP includes minimum BMPs for commercial and industrial facilities, which are detailed in Table 3.9-3. The District would require compliance with the following BMP categories:

- General operations and housekeeping
- Non-stormwater management
- Waste handling and recycling
- Outdoor material storage
- Outdoor drainage from indoor activity
- Vehicles and equipment
- Education and training
- Outdoor activity and operation

Therefore, by implementing the BMP requirements outlined above, operation of future commercial development would not violate water quality standards or waste discharge requirements and impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

Threshold (b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management basin.

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (b) would result in a less than significant impact for the project-level wetland mitigation bank creation; therefore, is not analyzed below.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. The primary recharge for the Coastal Plain of San Diego Groundwater Basin is derived from seasonal runoff from precipitation in the upper reaches of the basin and reservoirs can recharge basins from outflow. Coastal groundwater basins are prone to intrusion of seawater. Groundwater at the project site is shallow and has been encountered at depths of 3 to 9 feet below existing grade.

Groundwater at the project site is anticipated to be hypersaline from saltwater intrusion and is not used for drinking water. Additionally, the 11.7 acres of pervious surfaces is unlikely to be a substantial contributor to the Coastal Plain of San Diego Groundwater Basin because the basin underlies a large area, which includes the cities of San Diego, National City, Chula Vista, Imperial Beach, and San Ysidro in southwestern San Diego County. While future commercial development would likely create new impervious surfaces, it would not interfere substantially with groundwater recharge, and therefore, would not impede a sustainable groundwater management basin. Therefore, impacts would be less than significant.

Mitigation Measure(s)

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts associated with the program-level component would be less than significant. In addition, as indicated in Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR, impacts associated with the project-level component would be less than significant. Therefore, impacts for the overall project would be less than significant.

Threshold (c.i) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site.

Project Level – Wetland Mitigation Bank

The creation of the wetland mitigation bank and use of Parcels B and C for construction staging would not result in the addition of impervious surfaces. However, the project would alter the existing drainage

pattern of the area by altering the tidal forces in the area. As part of the project, the overall elevation of the site would be lowered and reconnected to tidal flow from the San Diego Bay via excavated channels. This would result in scour of the Otay River channel. Scour is caused by swift moving water, which can transport sediment such as sand and gravel. While scour of this channel is anticipated and necessary to create adequate tidal influence into the proposed wetlands, a geomorphic scour analysis was conducted to determine how the project could impact the Bayshore Bikeway Bridge that crosses the Otay River near the breach location (Appendix K).

CONTRACTION, ABUTMENT, AND PIER SCOUR

The scour analysis was completed following FHWA HEC-18 and HEC-25 design guidelines. FHWA guidance requires an evaluation of contraction scour (which occurs uniformly along the entire channel cross section), abutment scour, and pier scour, as well as long-term scour, which is a prediction of potential long-term erosion that could occur due to a variety of geomorphic factors. The ACOE Hydrologic Engineering Center's River Analysis System model was run for worst-case scour conditions by timing the peak of the 100-year hydrograph with low tide, which maximizes the water slope in the channel, resulting in the highest velocities.

Upstream/Downstream Analysis

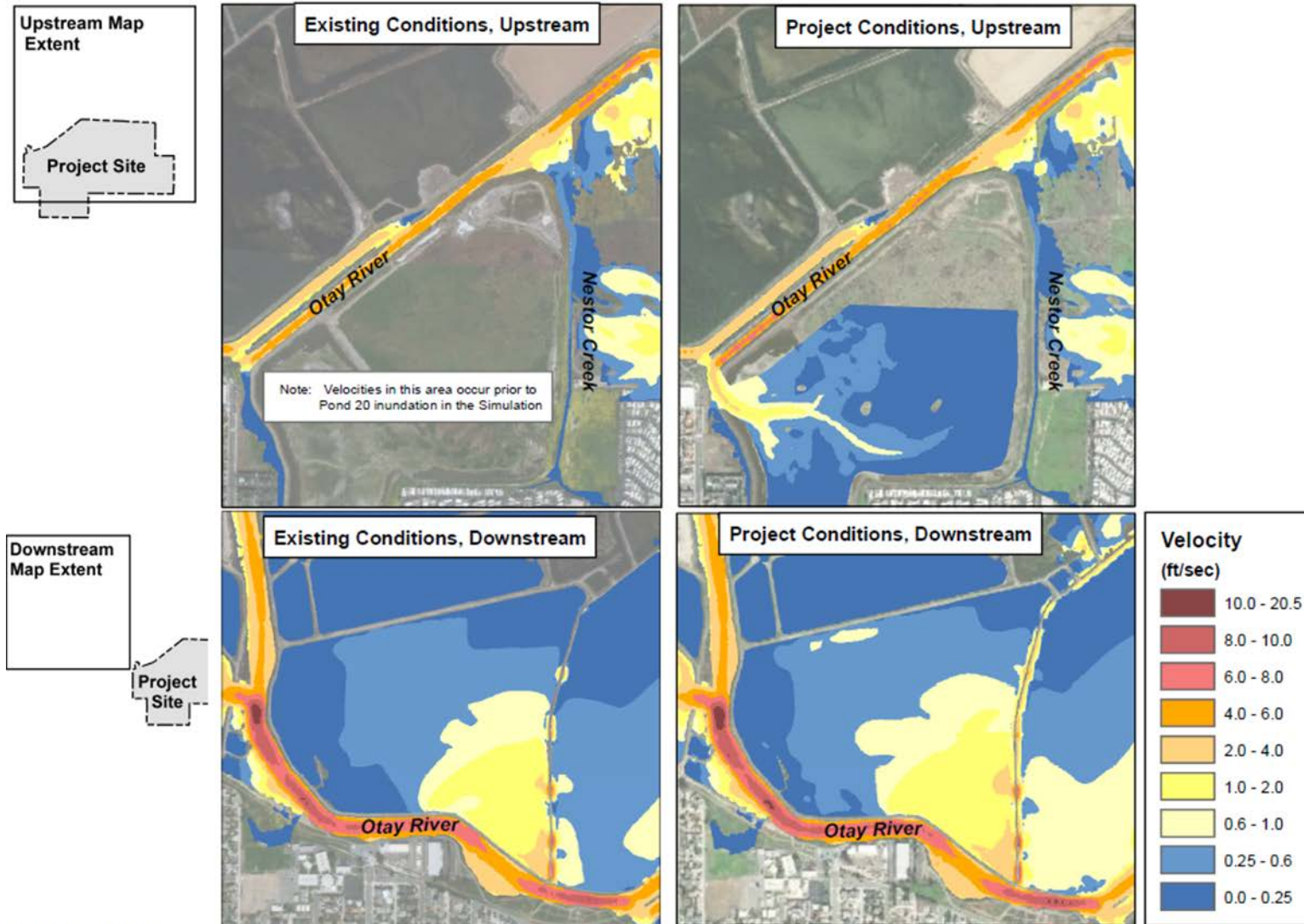
Under existing conditions during a 100-year flood event, flood waters expand over the floodplain upstream of the project site, and then contract into the channel near the confluences of Nestor Creek, resulting in high velocities in the channel in this area. The modeled project conditions show very similar results. Compared with existing conditions, the project would result in an increase in peak velocities in the channel upstream of the Bayshore Bikeway Bridge by up to 2.5 feet/second and downstream by about 0.3 feet/second during a 100-year fluvial flood event, as depicted on Figure 3.9-4 and Figure 3.9-5.

Typical of a natural system, an increase in peak velocities would result in erosion. During a 100-year flood event, under existing conditions, the channel would be expected to result in approximately 4-7 feet of scour upstream of the Bayshore Bikeway Bridge and 5-8 feet downstream of the Bayshore Bikeway Bridge. The expected difference in erosion between project and existing conditions is on the order of 0.2 feet upstream of the Bayshore Bikeway Bridge and 0.1 feet downstream. This 0.2-foot and 0.1-foot increase in the amount of erosion would be under worst-case scour conditions and is within the range of expected scour under existing conditions. Further, the locations of potential erosion are in the channel upstream and downstream of the Bayshore Bikeway Bridge and would not impact the bridge structure. Impacts would be less than significant.

Bridge Analysis

The *Hydrodynamic Modeling Report* also concluded that no contraction scour (i.e., no erosion at the bed of the bridge) is expected at the Bayshore Bikeway Bridge under existing or project conditions. No increase in potential pier scour (i.e., no increase in sediment around the bridge substructure) is expected at the Bayshore Bikeway Bridge for the project conditions compared with the existing conditions. Impacts would be less than significant.

Figure 3.9-4. 100-Year Storm Event Velocities of Existing and Project Conditions

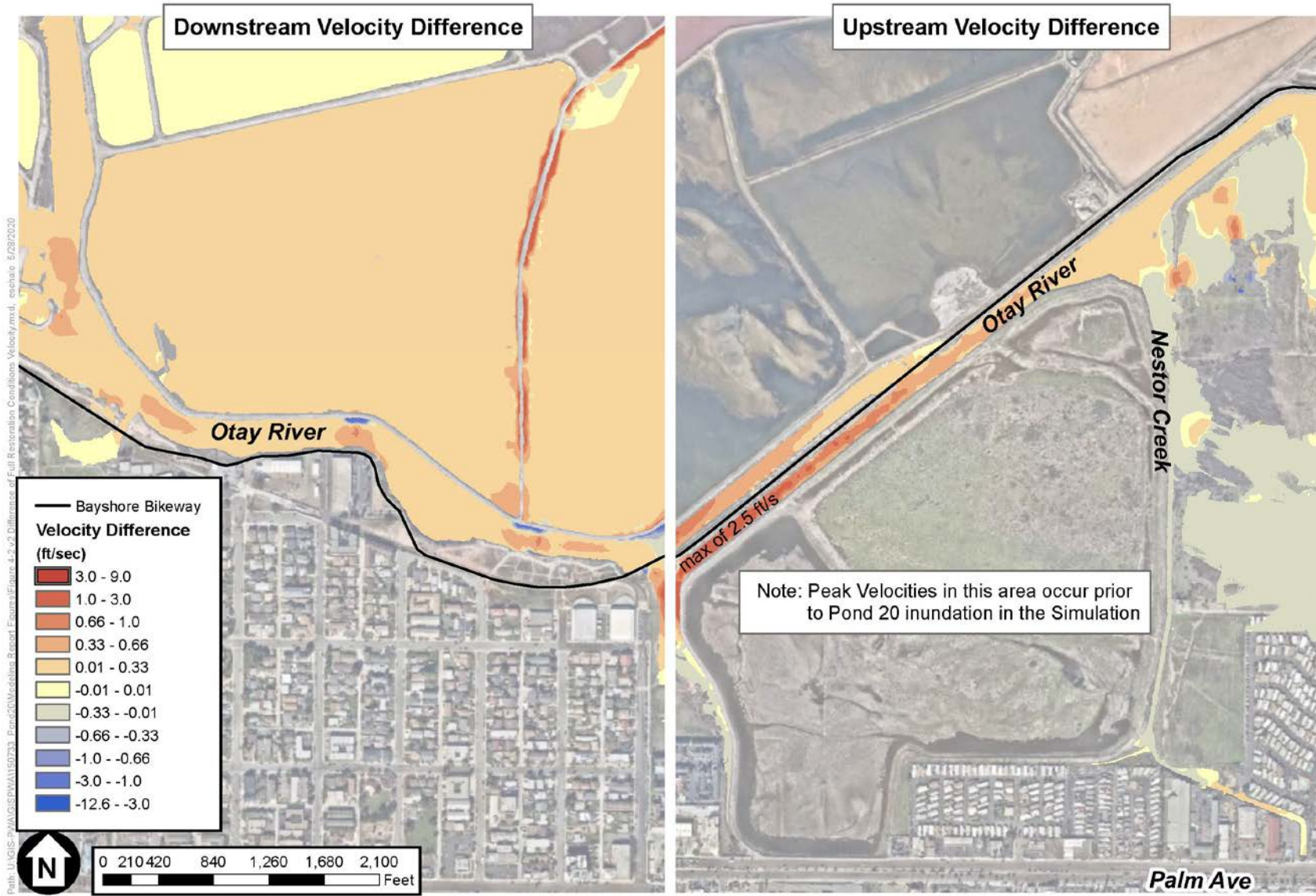


Source: Appendix K of this EIR

Note: The data reflects multiple timesteps taken from the model output in order to reflect maximum velocity over the full model domain.

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Figure 3.9-5. Difference in 100-Year Storm Event Velocities between Existing and Project Conditions



Source: Appendix K of this EIR

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LONG-TERM SCOUR

Bridge Analysis

Sea level rise, in combination with the project, would increase the tidal prism (i.e., the volume of water contained in the bay between low- and high-tide levels) and potential for scour of the Otay River channel, which would be the biggest contributing factor for long-term scour at the bridge. The hydraulic geometry analysis conducted as part of the *Hydrodynamic Modeling Report* indicated that the project is likely to increase the channel depth by up to about 1.5 feet at the Bayshore Bikeway Bridge, compared with existing conditions in the long term (over 10+ years). The analysis further estimates that the channel width at the Bayshore Bikeway Bridge, which is within the jurisdiction of the UFWWS, could increase by up to 29 feet in the long term; however, the bridge substructure (abutments) are wider than the predicted increase in width. This indicates that long-term scour at the bridge is not expected to affect the structural integrity of the bridge, which is within the jurisdiction of the City of San Diego.

If downcutting of the channel is limited by existing hardened materials in the channel bottom (i.e., the channel depth does not increase by 1.5 feet), the channel may widen to accommodate the tidal prism, rather than widening and downcutting. If downcutting is restricted, then the project could increase the channel top width at mean higher high water to 260 feet, which is 120 feet wider than the bridge. This conservatively high estimate of widening could potentially affect the structural integrity of the bridge. This condition would be a significant impact. MM HY-1 would require scour monitoring and maintenance program to identify any scour impacts that could compromise the integrity of the bridge and identify appropriate maintenance actions. The maintenance plan would identify adaptive management strategies to be determined by a professional engineer. Implementation of MM HY-1 would reduce significant impacts to a level less than significant.

Downstream Analysis

The long-term scour analysis also considered how the channel dimension would increase downstream of the Bayshore Bikeway Bridge in areas within the jurisdiction of the USFWS. Upstream conditions were not considered in the long-term scour analysis because long-term scour is the result of in the increase in tidal prism, which only affects the channel downstream of the project site. The existing channel becomes wider as the tidal prism conveyed through that part of the channel increases. Just downstream of the Bayshore Bikeway Bridge, the channel is at the narrowest point 70 feet wide. The model predicts the channel could scour to approximately 74 feet in the area in the long term (occurring over 10+ years). On the south side of the channel is a marsh bench that is approximately 25 feet wide, and on the north side of the channel is the berm for Pond 22. The marsh side of the channel is less consolidated and therefore more easily erodible than the berm for Pond 22. It is expected that the marsh area would erode first. Erosion in this area that could impact the Pond 22 berm would be a significant impact. MM HY-1 would require scour monitoring and a maintenance program to identify any scour impacts that could compromise the Pond 22 berm. The maintenance plan would identify adaptive management strategies to be determined by a professional engineer. Implementation of MM HY-1 would reduce significant impacts to a level less than significant.

Further downstream, including at the mouth of the Otay River between existing salt pond berms, the channel is not predicted to scour wider than existing conditions; therefore, the project would not increase the width of the channel downstream. Impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. Development of Parcels A, B, and C would be restricted to the parcels, and development is not proposed within Nestor Creek or the Otay River Tributary. Development of these parcels would result in new impervious surfaces since all three parcels, with the exception of the southern portion of Parcel B, are all currently pervious. All three parcels are surrounded by urban development and existing drainage features. The project site would continue to drain into the nearby drainages, including the Otay River Tributary and Nestor Creek.

As discussed in Section 3.3, Biological Resources, of this EIR, Parcel B is separated from the Bank Site by existing berms around Pond 20, which would remain after construction of the wetland mitigation bank. The western edge of Parcel C is bordered by Nestor Creek. Parcel A is bordered by the Otay River Tributary on the eastern edge of the parcel and receives freshwater flows from a stormdrain that outlets onto Parcel A from under 13th Street. These water features are managed under the various regulations identified in Section 3.9.4, including the CWA and Porter-Cologne Act.

CONSTRUCTION

As discussed under Threshold (a), if the project would disturb more than 1 acre of soil, then the project proponent would be required to obtain coverage under the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ (as amended by Order 2010-0014-DWQ and Order 2012-0006-DWQ) and prepare a SWPPP. The project SWPPP would be developed and implemented by a qualified SWPPP developer. At a minimum, BMPs would include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants) 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 like 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, and for projects that would disturb less than 1 acre, the project proponent would be required to implement the construction BMPs identified in the District's JRMP, which are listed in Table 3.9-2. The BMP categories applicable to commercial development include:

- Project planning
- Non-stormwater management
- Good housekeeping/waste management
- Erosion control
- Sediment control
- Runon and runoff control

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.



OPERATION

Future commercial development of Parcels A, B, and C would be considered a PDP. Therefore, the future commercial development applicant would prepare a project-specific SWQMP for approval by the District that identifies hydromodification management flow control structural BMPs, LID features (site design and source control BMPs), and pollutant control BMPs to reduce the discharge of pollutants to the maximum extent practicable.

The MS4 permit defines hydromodification as the change in the natural watershed hydrologic and runoff characteristics (i.e., interception, infiltration, overland flow, and groundwater flow) caused by urbanization or other land use changes that result in increased stream flows and sediment transport. In addition, alteration of stream and river channels, such as stream channelization and concrete lining are also considered hydromodification, due to their disruption of natural watershed hydrologic processes.

Typical impacts to natural watershed hydrologic processes and runoff characteristics resulting from new development and redevelopment include:

- Decreased interception and infiltration of rainfall at the project site due to removal of native vegetation, compaction of pervious area soils, and the addition of impervious area;
- Increased runoff volume, flow rate, and duration from the project site due to addition of impervious area, removal of native vegetation, and compaction of pervious area soils; and
- Reduction of critical coarse sediment supply from the project site to downstream natural systems (e.g., streams) due to stabilization of developed areas, stabilization of streams, and addition of basins that trap sediment (either by design as a permanent desilting basin or storm water quality treatment basin that settles sediment, or incidentally as a peak flow management basin).

Hydromodification management flow control structural BMPs, LID features, and stormwater pollutant control BMPs that are designed to retain (i.e., intercept, store, infiltrate, evaporate, and evapotranspire) stormwater runoff generated on the project site in compliance with the District's BMP Manual would be implemented to ensure no increase in flows from storm events. As part of the SWQMP, drainage management areas, including BMPs would be required. Compliance with regulations, including the District's JRMP and the regional MS4 permit, would be required to prevent the proposed project from allowing the discharge of water in a manner which would result in substantial erosion or siltation on or off site.

The project would comply with regulations by preparing a project-specific SWQMP and implementing appropriate BMP and LID features. Therefore, impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

MM HY-1 Bridge and Channel Scour Monitoring and Maintenance. A Bridge and Channel Scour Monitoring and Maintenance Program shall be developed and implemented by the District. The program shall outline a survey plan to be carried out for a minimum of 10 years. The survey plan shall:

- Identify protocols for collecting baseline data prior to commencement of construction;
- Identify a minimum of 5 cross sections to be surveyed;
- Require annual monitoring for at least 10 years;
- Identify ideal conditions for monitoring (i.e., season, tide level, outside nesting season);
- Identify monitoring protocols; and
- Require a professional engineer to review the results of the surveys.

Based on the results of the survey, a professional engineer shall compare the results of the annual surveys to baseline conditions to determine the amount of scour at each cross section. The professional engineer shall identify adaptive management strategies, if necessary, to ensure the integrity of existing structures, including the Bayshore Bikeway Bridge and salt pond berms.

The cross sections included in the program shall include the channel in the area of the Bayshore Bikeway Bridge and the narrow channel cross section of the Otay River immediately downstream of the bridge near Pond 22 identified in Environmental Science Associate's 2020 Hydrodynamic Modeling Report (Appendix K to this EIR).

As part of the baseline data collected, the program shall require probing the sediment in the channel in the vicinity of the Bayshore Bikeway Bridge. The conservatively high estimate in Environmental Science Associates' 2020 Hydrodynamic Modeling Report (Appendix K to this EIR) identified the potential for widening of the channel to occur if dencutting is limited at this location. If hardened areas in the sediment are identified at this location, the professional engineer shall identify adaptive management strategies.

The program shall identify adaptive management strategies that are appropriate for the location, which would not impact tidal influence at the mitigation bank, and are approved by the professional engineer. Potential adaptive management strategies include:

- Removal of hardened sediment near the Bayshore Bikeway Bridge;
- Excavation of sediment;
- Re-grading of the channel; and
- Armoring of the channel.

If re-grading or armoring is required, the program shall include measures to ensure consistency with post-construction erosion control plans.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from potential erosion due to long-term tidal scour on the Bayshore Bikeway Bridge or channel downstream would be reduced with the implementation of MM HY-1 to less than significant by requiring preparation and implementation of a Bridge and Channel Scour Monitoring and Maintenance Program. The program would require annual monitoring of the channel and a professional engineer to review the results of the surveys and identify appropriate adaptive management strategies. The implementation of adaptive strategies may result in additional effects which would be approved by applicable agencies through the permit process.

No mitigation is required for the program-level components. Future commercial development would not change the significance conclusions for the wetland mitigation bank.

Implementation of MM HY-1 would reduce impacts from long-term scour as a result of the proposed project to less than significant.

Threshold (c.ii) Substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.

Project Level – Wetland Mitigation Bank

Creation of the wetland mitigation bank would alter the course of a stream or river by reconnecting the Bank Site to tidal influence. As detailed in the Hydrodynamic Modeling Report, prepared by Environmental Science Associates (Appendix K), 100-year and 10-year flood dynamics were modeled under current sea level conditions (see Section 3.10, Land Use and Planning, of this EIR for a discussion regarding sea level rise). The 100-year storm event was modeled as the worst-case scenario and has a 1 percent chance of occurring on a yearly basis. The 10-year storm event was analyzed to understand the effect of the project during more frequent storm events.

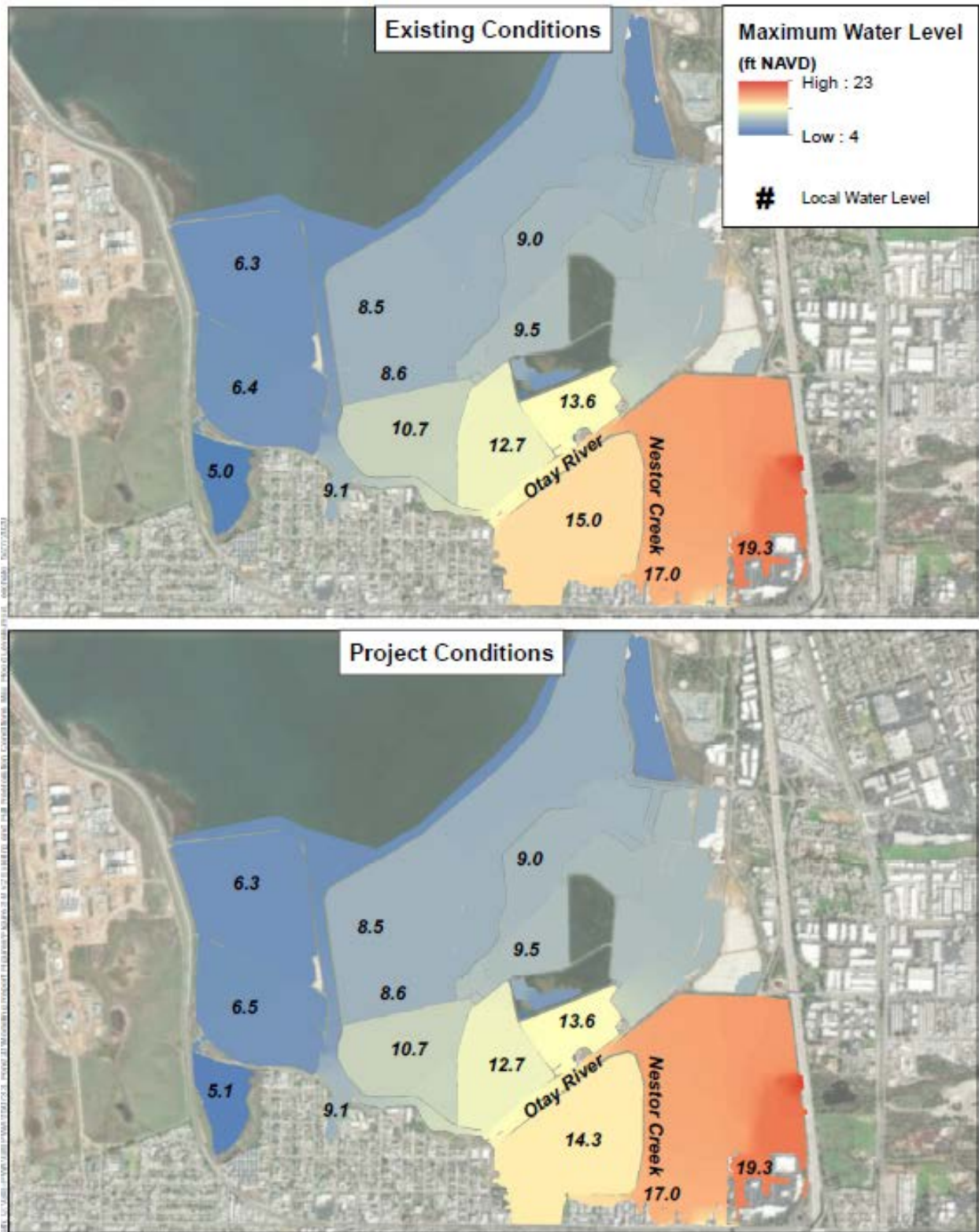
100-YEAR STORM EVENT

Model results indicate the flood under project conditions progresses in the same sequence and a similar manner to existing conditions, as depicted on Figure 3.9-3. Water initially overtops the banks of the Otay River channel causing shallow inundation of the properties along the river upstream of the project site. As flood waters continue to rise, model results indicate that water would then overtop the existing Pond 20 berm from the south along Bayside Palm Mobilehome Village and the Pond 22 berm. Still higher water levels in the Otay River would then overtop into Ponds 48 and 20 (north) around the north pedestrian bridge. After 27 hours, Pond 22 would eventually fill up and overflow into the adjacent Ponds 21, 23, 24, and 27. Pond 20 provides flood storage under existing conditions as water overtops the berms into the pond; however, water then cannot flow back out once the water elevation drops below the top of the berm. Under the proposed project scenario, the overall storage volume would be increased (through the excavation of the site); however, during high tide, some of this volume is occupied by tidal waters. The breach would allow the water to drain out, so the pond would not provide storage for as long as under existing conditions (although the drainage is limited by the breach dimensions). As a result, the model shows that the peak water 100-year flood levels with the proposed

project are similar to the water levels for existing conditions, and inundation risk would not substantially increase from existing conditions.

Flooding off site would occur under existing conditions, as depicted on Figure 3.9-6. Notable locations of flooding include the Bayside Palms Mobilehome Village, the Imperial Sands Mobile Park, and Bayside Park near Bayside Elementary School. The proposed project would have similar water levels compared with existing conditions during a 100-year fluvial flood event. The project site reaches a lower maximum water level during the 100-year storm event under project conditions because the Bank Site would be connected to tidal flow (Figure 3.9-6). The only location with an increase in maximum water levels is in Ponds 10 and 10A and would increase by 0.1 feet under project conditions. However, this slight increase is within the capacity of the ponds and would not affect the surrounding area. As depicted on Figure 3.9-7, the maximum water levels at Bayside Park are similar for existing and project conditions. Existing conditions result in a slightly greater flood extent than project conditions because the flood waters peak a little bit sooner than under project conditions and stay high.

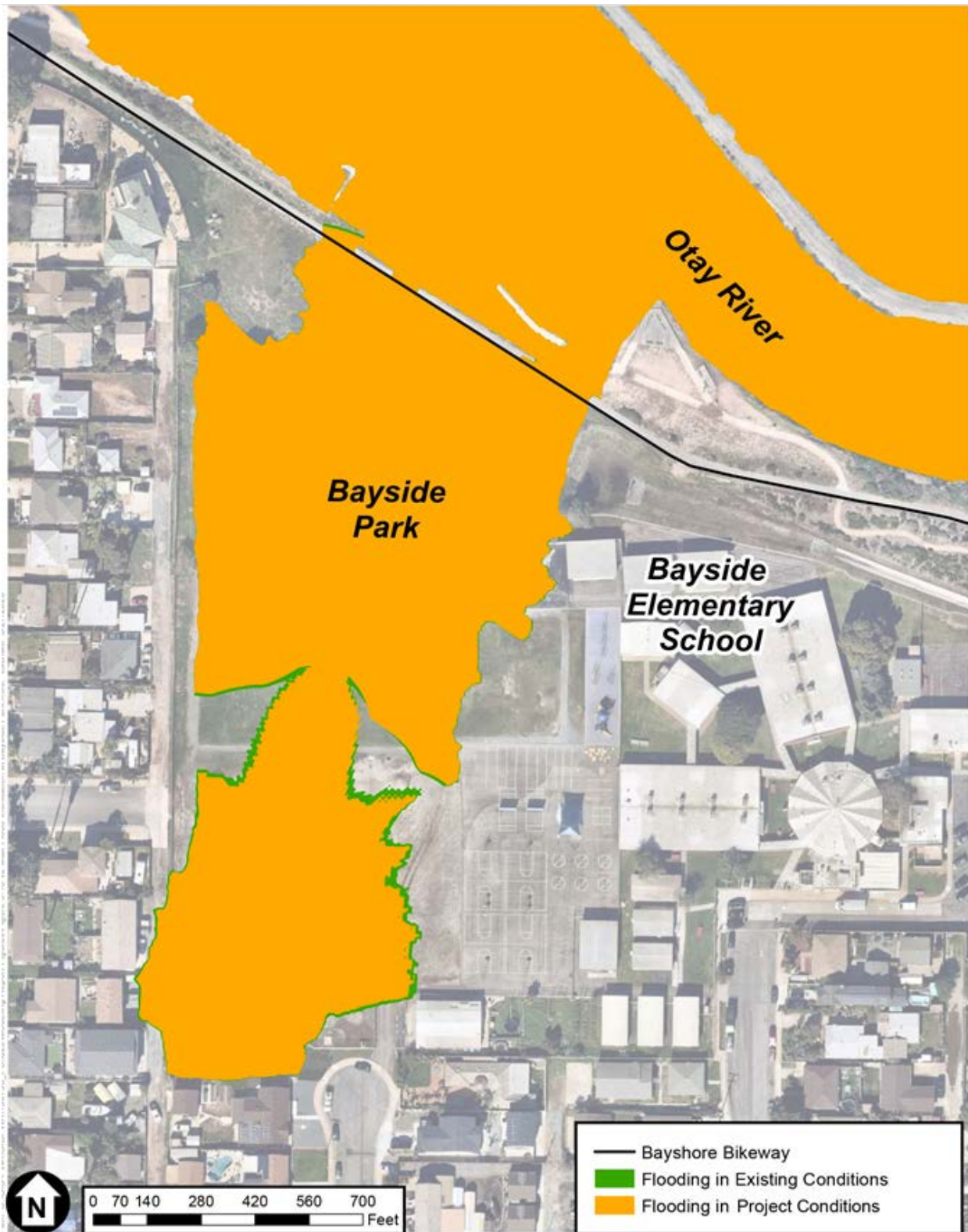
Figure 3.9-6. Maximum Flood Water Levels During 100-Year Storm Event



Source: Appendix K of this EIR

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Figure 3.9-7. Modeled Conditions Maximum Flood Water Extent at Bayside Park During 100-Year Storm Event



Source: Appendix K of this EIR

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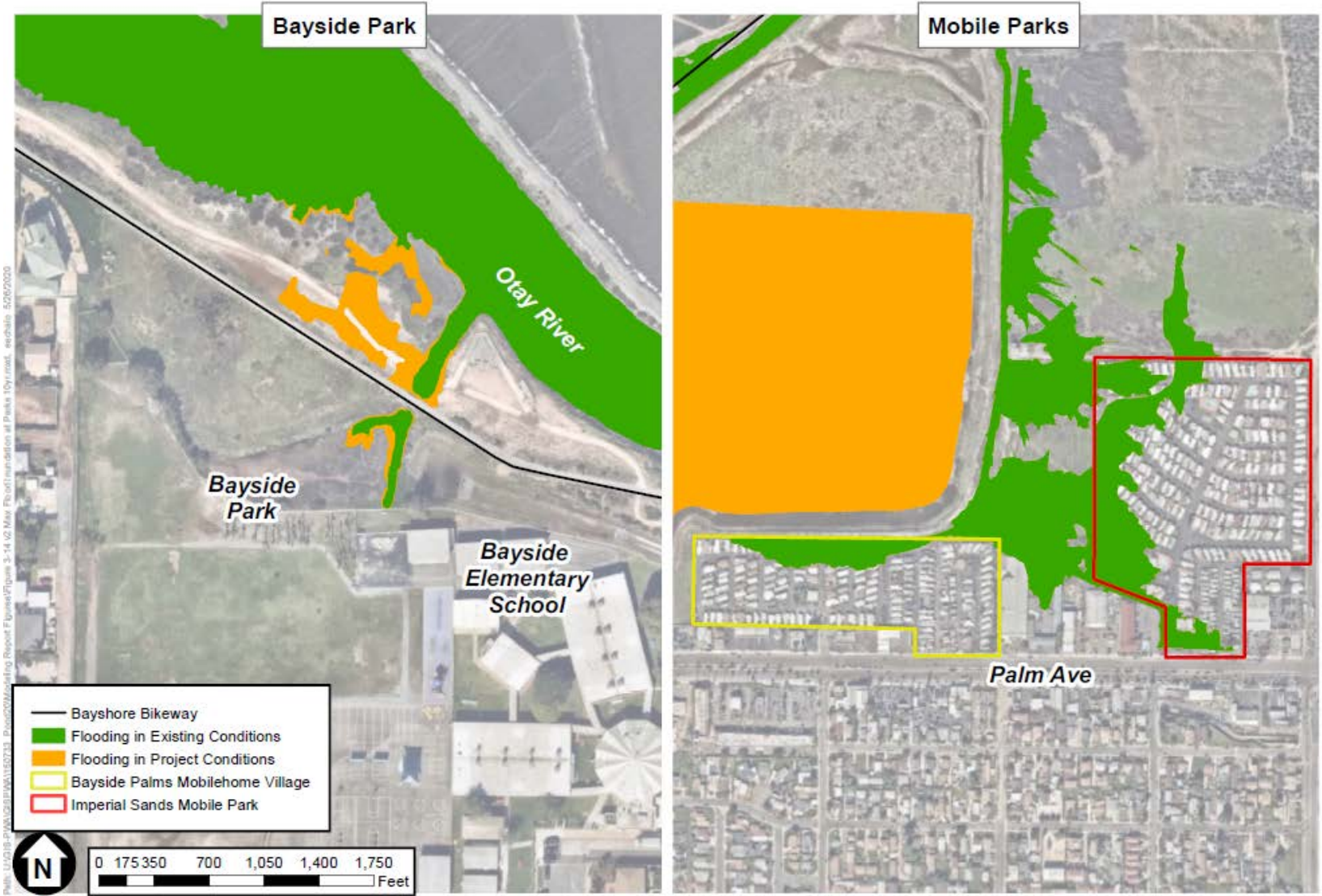


10-YEAR STORM EVENT

During the 10-year storm event under existing and proposed project conditions, model results show that water would overtop the banks of the Otay River channel, and inundate the open space surrounding the channel. Flood waters from Nestor Creek would inundate the properties along river upstream of the site with no differences in the flood extent between scenarios. As the flood waters from Nestor Creek and Otay River meet, the water levels would be low enough to be contained within the Otay River channel all the way to the bay (e.g., no pond berms are overtopped by storm waters). As depicted on Figure 3.9-8, flood waters during the 10-year storm event would not overtop into Bayside Park. Some water would flow through the Bayside Park culvert and is stored within the marsh along the Bayshore Bikeway; inundation would not extend to the park or Bayside Elementary School. As depicted on Figure 3.9-8, under project conditions reduce flooding at both the Bayside Palms Mobilehome Village and the Imperial Sands Mobile Park.

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Figure 3.9-8. Modeled Conditions Maximum Flood Water Extent at Bayside Park and Mobil Parks During 10-Year Storm Event



Source: Appendix K of this EIR

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CONCLUSION

During the 10-year storm event, the proposed project would not result in flooding off site beyond existing conditions. In some locations, the Bayside Palms Mobilehome Village and the Imperial Sands Mobile Park, flooding would be reduced and would not impact either location. During the 100-year storm event, the proposed project would have similar water levels compared with existing conditions. The project site reaches a lower maximum water level during the 100-year storm event under project conditions because the Bank Site would be connected to tidal flow. The only location with an increase in maximum water levels is in Ponds 10 and 10A and would increase by less than 0.1 feet under project conditions. However, this slight increase is within the capacity of the ponds and would not affect the surrounding area. Therefore, no substantial increase in the rate or amount of surface runoff in a manner which would result in flooding on- or offsite would occur. Impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. Any development of Parcels A, B, and C is anticipated to occur after the wetland mitigation bank has been constructed and would require discretionary action by the District, in the form of either a CDP or a CCA exclusion, as well as the District's tenant improvement project plans. However, as discussed under the wetland mitigation bank above, the proposed project would result in similar flooding conditions as existing conditions.

Development of Parcels A, B, and C would be restricted to the parcels, and development is not proposed within Nestor Creek or Otay River Tributary. However, development of these parcels would result in new impervious surfaces since all three parcels, with the exception of the southern portion of Parcel B, are all currently pervious.

As discussed under Threshold (c.i.), the future commercial development proponent would be considered a PDP. Therefore, the future commercial development proponent would prepare a project-specific SWQMP for approval by the District that identifies hydromodification management flow control structural BMPs, LID features (site design and source control BMPs), and pollutant control BMPs to reduce the discharge of pollutants to the maximum extent practicable.

Any increases in peak flows for storm events would be managed through the use of hydromodification management flow control structural BMPs, LID features, and stormwater pollutant control BMPs that are designed to retain (i.e., intercept, store, infiltrate, evaporate, and evapotranspire) stormwater runoff generated on the project site in compliance with the District's BMP Manual. As part of the SWQMP, drainage management areas, including BMPs would be required. Compliance with regulations, including the District's JRMP and the regional MS4 permit, would be required to prevent the proposed project from substantially increasing the rate or amount of surface runoff in a manner which would result in flooding on or off site.

The project would comply with regulations by preparing a project-specific SWQMP and implementing appropriate BMP and LID features. Therefore, impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

Threshold (c.iii) Substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (c.iii) would result in no impact for the project-level wetland mitigation bank creation; therefore, it is not analyzed below.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. Development of Parcels A, B, and C would be restricted to the parcels, and development is not proposed within Nestor Creek or Otay River Tributary. However, development of these parcels would result in new impervious surfaces since all three parcels, with the exception of the southern portion of Parcel B, are all currently pervious. All three parcels are surrounded by urban development and existing drainage features. The project site would continue to drain into the nearby drainages, including the Otay River Tributary and Nestor Creek.

As discussed under Threshold (c.i.), future commercial development of Parcels A, B, and C would be considered a PDP. Therefore, the future commercial development proponent would prepare a project-specific SWQMP for approval by the District that identifies hydromodification management flow control structural BMPs, LID features (site design and source control BMPs), and pollutant control BMPs to reduce the discharge of pollutants to the maximum extent practicable. Any increases in peak flows for storm events would be managed through the use of hydromodification management flow control structural BMPs, LID features, and stormwater pollutant control BMPs that are designed to retain (i.e., intercept, store, infiltrate, evaporate, and evapotranspire) stormwater runoff generated on the project site in compliance with the District's BMP Manual. As part of the SWQMP, drainage management areas, including BMPs would be required. Compliance with regulations, including the District's JRMP and the regional MS4 permit, would be required to prevent the proposed project from allowing the discharge of water levels that exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

The project would comply with regulations by preparing a project-specific SWQMP and implementing appropriate BMP and LID features. Therefore, impacts would be less than significant.

Mitigation Measure(s)

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts associated with the program-level component would be less than significant. In addition, as indicated in Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR, there would be no impact associated with the project-level component. Therefore, impacts for the overall project would be less than significant.

Threshold (c.iv.) Substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river through the addition of impervious surfaces, in a manner which would impede or redirect flood flows.

Project Level – Wetland Mitigation Bank

As discussed under Threshold (c.ii.) above, creation of the wetland mitigation bank would alter the course of a stream or river by reconnecting the Bank Site to tidal influence. As detailed in the Hydrodynamic Modeling Report, prepared by Environmental Science Associates (Appendix K), 100-year and 10-year flood dynamics were modeled under current sea level conditions. The 100-year storm event was modeled as the worst-case scenario and has a 1 percent chance of occurring on a yearly basis. The 10-year storm event was analyzed to understand the effect of the project during more frequent storm events.

During the 10-year storm event, the proposed project would not result in flooding offsite beyond existing conditions. In some locations, the Bayside Palms Mobilehome Village and the Imperial Sands Mobile Park, flooding would be reduced and would not impact either location (Figure 3.9-8). During the 100-year storm event, the proposed project would have similar water levels compared with existing conditions. However, portions of the project site are within a FEMA Regulatory Floodway (Figure 3.9-2) and there is a zero-rise requirement for any encroachment within a FEMA Regulatory Floodway. The District would request a Conditional Letter of Map Revision (CLOMR) from FEMA. If approved, the CLOMR would reflect an official revisions/amendment to an effective FIRM. Therefore, impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. Development of Parcels A, B, and C would be restricted to the parcels, and development is not proposed within Nestor Creek or Otay River Tributary. However, development of these parcels would result in new impervious surfaces since all three parcels, with the exception of the southern portion of Parcel B, are all currently pervious.

As discussed under Threshold (c.i.), future commercial development of Parcels A, B, and C would be considered a PDP. Therefore, the future commercial development proponent would prepare a project-specific SWQMP for approval by the District that identifies hydromodification management flow control structural BMPs, LID features (site design and source control BMPs), and pollutant control BMPs to reduce the discharge of pollutants to the maximum extent practicable. Any increases in peak

flows for storm events would be managed through the use of hydromodification management flow control structural BMPs, LID features, and stormwater pollutant control BMPs that are designed to retain (i.e., intercept, store, infiltrate, evaporate, and evapotranspire) stormwater runoff generated on the project site in compliance with the District's BMP Manual. As part of the SWQMP, drainage management areas, including BMPs would be required. Compliance with regulations, including the District's JRMP and the regional MS4 permit, would be required to prevent the proposed project from allowing the discharge of water levels in a manner which would impede or redirect flood flows.

The project would comply with regulations by preparing a project-specific SWQMP and implementing appropriate BMP and LID features. Therefore, impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

Threshold (d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

Project Level – Wetland Mitigation Bank

The project site is approximately 1 mile from the San Diego Bay, and therefore, potential for seiches is considered low. Additionally, the project site is not within the tsunami inundation zone according to the State of California Tsunami Inundation Map for Emergency Planning (California Emergency Management Agency 2009). As discussed under Threshold (c.ii.) above, the creation of the wetland mitigation bank would have similar water levels (differences less than 0.1 feet under 100- year flood conditions) in the Otay River downstream of the project site compared with existing conditions. During construction, fueling, and servicing of construction equipment may involve the use of hazardous materials and wastes, including the transport, storage, and disposal of commercially available hazardous materials such as gasoline, brake fluids, and coolants. Additionally, excavated contaminated soil may be stockpiled onsite. The handling of such materials would occur during short-term construction activities and would be subject to federal, state, and local health and safety requirements, as described under Section 3.8, Hazards and Hazardous Materials, of this EIR, as well as the project SWPPP, as described under Threshold (a) above. During operation of the wetland mitigation bank pollutants would not be stored on site. Therefore, impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. Similar to the wetland mitigation bank, the risk for seiches or tsunami inundation at the project site is considered low. Future

commercial development is likely to occur after the wetland mitigation bank has been constructed. As discussed in Threshold (c.ii.) above, the 100-year storm event would result in similar flooding patterns compared with existing conditions, and the 10-year storm event would reduce the flood risk on Parcels A, B, and C compared with existing conditions.

During construction of future commercial development, construction, fueling, and servicing of construction equipment may involve the use of hazardous materials and wastes, including the transport, storage, and disposal of commercially available hazardous materials such as gasoline, brake fluids, and coolants. Additionally, excavated contaminated soil may be stockpiled onsite. The handling of such materials would occur during short-term construction activities and would be subject to federal, state, and local health and safety requirements, as described under Section 3.8, Hazards and Hazardous Materials. As discussed under Threshold (a) above, a project SWPPP would be prepared and implemented during project construction. In addition to the SWPPP, and for projects that would disturb less than 1 acre, the project proponent would be required to implement the construction BMPs identified in the District's JRMP, which are listed in Table 3.9-2.

While the type of future development on Parcels A, B, and C have not been identified, the PMP allows for the various land uses under commercial development, all of which would likely involve transport, use, and disposal of hazardous materials associated with routine commercial cleaning and maintenance for these land uses. However, the transport, use, and disposal of these materials would be handled and stored in compliance with all applicable laws and regulations, as described in Section 3.8, Hazards and Hazardous Materials, of this EIR, and would not create a significant hazard to the public or the environment. Additionally, a project-specific SWQMP would be prepared for approval by the District that identifies LID features and pollutant control BMPs.

Construction and operation of future commercial development of Parcels A, B, and C would have a low potential to release pollutants due to inundation and impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

Threshold (e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (e) would result in no impact for the project-level wetland mitigation bank creation; therefore, it is not analyzed below.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. The District's JRMP is the local water quality management plan that applies to the proposed project. As discussed under Threshold (a), the proposed project would be covered under the Construction General Permit and the District's JRMP, which would require the project implement site design measures and BMPs to reduce or prevent runoff pollution that would be consistent with the JRMP. Therefore, the proposed project would not conflict with or obstruct implementation of the applicable water quality control plan for the project area. As discussed under Threshold (b), while future commercial development would likely create new impervious surfaces, it would not interfere substantially with groundwater recharge. The 11.7 acres of pervious surfaces is unlikely to be a substantial contributor to the Coastal Plain of San Diego Groundwater Basin because the basin underlies a large area, which includes the cities of San Diego, National City, Chula Vista, Imperial Beach, and San Ysidro in southwestern San Diego County. Therefore, the proposed project is not anticipated to conflict with a sustainable groundwater management plan.

Mitigation Measure(s)

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts associated with the program-level component would be less than significant. In addition, as indicated in Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR, there would be no impact associated with the project-level component. Therefore, impacts for the overall project would be less than significant.

3.10 Land Use and Planning

3.10.1 Overview

This section describes the existing land use conditions and applicable laws, regulations, and policies associated with land use and planning, as well as an analysis of the potential effects resulting from implementation of the proposed project. Information contained in this section is summarized from the Wetland Restoration of Salt Pond 20 Hydrodynamic Modeling Report prepared by Environmental Science Associates dated June 2020 (Appendix K).

3.10.2 Existing Conditions

The project site is under the jurisdiction of the District on tidelands within the City of San Diego. The District was created in 1962 and is charged with management of the state tidelands and submerged lands and diverse waterfront uses along San Diego Bay to promote commerce, navigation, fisheries, recreation, and environmental stewardship on the granted lands. The project site was purchased by the District in 1998 from the WSC as part of a 1,400-acre land acquisition. After the San Diego County Regional Airport Authority became a separate agency from the District in 2003, the District retained ownership of the project site as provided in the California SB 1896 (2002), with the charge of utilizing the project site for future development, subject to the Public Trust.

Project Site Land Use

The project site is divided into two main areas: the Bank Parcel and Parcels A, B, and C. The Bank Parcel is 83.5 acres and contains the southern portion of the former salt evaporation pond known as Pond 20. The Bank Parcel extends beyond the existing salt pond berms to also include Nestor Creek and the Otay River Tributary. The Bank Site would be developed within the existing Pond 20 berms in the Bank Parcel, and the Bank Site would be up to 80 acres. Parcels A, B, and C are immediately adjacent to the Bank Parcel but entirely outside the Pond 20 berms.

The project site historically supported wetland habitats until at least 1870, when the WSC acquired the project site in the 1890s and created a large complex network of salt evaporation ponds. However, Pond 20 has not been utilized as an evaporation pond since the 1960s. Parcels A, B, and C surround the Bank Parcel and are currently all undeveloped, with the exception of the southern portion of Parcel B, which is a paved and fenced vacant lot.

While these parcels are within the District's jurisdiction, they are not incorporated into the PMP. Land uses are currently not assigned to these parcels.

Surrounding Land Uses

The project site is surrounded by residential, commercial, and recreational land uses. Immediate surrounding land uses include the following:

- North: San Diego Bay NWR and the ORERP site, the Western Salt Segment of the Bayshore Bikeway, Otay River, and San Diego Bay

- South: Amigo's Tire Shop, Bayside Palms Mobile Home Villages, Apache Trailer Lodge, Public Storage facility, Prime Inn San Diego, and other commercial uses accessible from westbound Palm Avenue; Santana's 24-hour drive-thru restaurant, the Capri Lodge Mobile Home Park, and other commercial uses accessible from eastbound Palm Avenue
- East: Otay Valley Regional Park, City of San Diego Otay River Pump Station, and Imperial Sands Mobile Home Park
- West: Bikeway Village mixed-use development and single-family residences on the west side of 13th Street; Bayside Villas Condominiums, Soapy Joe's Car Wash, and Auto Zone also west and south of the project site

North of the project site is the channelized Otay River, which flows east to northwest, where it enters San Diego Bay. Running parallel to the Otay River, north of the Bank Site, is the Western Salt Segment of the Bayshore Bikeway. The bikeway crosses the Otay River northwest of the Bank Site along an old railroad bridge. The Bikeway Village mixed-use development, located at the northern end of 13th Street, immediately adjacent to the northwest corner of the project site, was recently completed. Two surface-water features, Nestor Creek and the Otay River Tributary, run north to south outside the eastern and western berms of the Bank Site, respectively. The City of San Diego's Otay River Pump Station and the Otay Valley Regional Park are also immediately adjacent to northeast corner of the project site.

3.10.3 Applicable Laws, Regulations, and Policies

Federal

Coastal Zone Management Act

The federal CZMA (16 USC 1451 et seq.) was enacted in 1972 to manage coastal resources and growth within the coastal zone. The CZMA provisions help states develop coastal management programs to manage and balance competing uses of the coastal zone. The CZMA requires that federal actions that are reasonably likely to affect any land or water use or natural resource of the coastal zone be consistent with enforceable policies of a state's federally approved coastal management program. In California, the CZMA is administered by the CCC, Bay Conservation and Development Commission, and California Coastal Conservancy.

State

Executive Order S-13-08

Approved and signed by Governor Schwarzenegger in November 2008, this EO requires the California Natural Resources Agency to develop a state Climate Adaptation Strategy in coordination with local, regional, state, and federal public and private entities.

Under the order, the Resources Agency is required to request that the National Academy of Sciences convene an independent panel to complete the first California Sea Level Rise Assessment Report. The report is to be reviewed every 2 years. The order also requires all state agencies planning construction projects in areas vulnerable to future sea level rise during the interim period until the National Academy of Sciences report is released, to "consider a range of sea level rise scenarios for the years 2050 and 2100 in order to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise."

California Coastal Act

The CCA of 1976 (PRC 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 CDPs within their jurisdictions. Individual PMPs require review and certification by the CCC, including any amendments to the certified PMP. The CCC must certify a PMP or PMPA if it finds that the PMP or PMPA meets the requirements of, and is in conformity with, the CCA. 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 sea level rise.

California Coastal Commission Sea Level Rise Policy Guidance

The CCC Sea Level Rise Policy Guidance was adopted in 2015. Science-focused updates were developed to address evolving science, and the CCC adopted the Final Science Update to the Coastal Commission Sea Level Rise Policy Guidance on November 7, 2018. Sea Level Rise Policy Guidance provides a framework for addressing sea level rise in PMPs and CDPs. The guidance provides principles for addressing sea level rise in the coastal zone, an overview of the science behind sea level rise as well as a description of the potential consequences, and an outline of the steps for addressing sea level rise in PMPs or CDPs. The guidance also provides a basis for selecting the time horizon and the risk level of the project, which are used to define the appropriate sea level rise amounts. The guidance recommends that project planning and design consider a range of scenarios in order to bracket the possible timing of a given amount of sea level rise.

With respect to coastal resources, sea level rise 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.

For habitat restoration projects, the CCC guidance recommends using multiple time horizons and sea level rise projections:

Determining an anticipated life for restoration activities or other related projects is somewhat more complex than for typical development projects because these activities are typically meant to exist in perpetuity. As such, assessing sea level rise impacts may necessitate analyzing multiple different time frames, including the present, near future, and very long-term depending on the overall goals of the project. For restoration projects that are implemented as mitigation for development projects, an expected project life that is at least as long as the expected life of the corresponding development project should be considered.

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 the tidelands and submerged lands granted to the District and 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.

State of California Sea Level Rise Guidance

In 2018 the Ocean Protection Council (OPC) updated the 2013 State of California Sea Level Rise Guidance in close coordination with a Policy Advisory Committee with representation from the California Natural Resources Agency, the Governor's OPR, and the CEC. The 2018 guidance provides:

- A synthesis of the best available science on sea level rise projections and rates for California;
- A step-by-step approach for state agencies and local governments to evaluate those projections and related hazard information in decision making; and
- Preferred coastal adaptation approaches.

Assembly Bill 691

In 2013, the California Legislature passed AB 691 (codified as California PRC 6311.5), which required local trustees of Public Trust lands to prepare and submit to the State Lands Commission an assessment of how the local trustee proposed to address projected sea level rise. The legislation also states that addressing the impacts of sea level rise for legislatively granted Public Trust lands shall be among the management priorities of a local trustee. The District's assessment, submitted on June 26, 2019, includes an analysis of projected sea level rise on Tidelands, maps showing areas affected under various sea level rise scenarios, and strategies the District could use to protect and preserve existing and proposed natural resources and the built environment. Importantly, the District's assessment also established an adaptive management framework whereby the District will address sea level rise and other climate change impacts through an iterative cycle of informing, monitoring, evaluating, and implementing.

Local

The project site is located entirely on District tidelands, but with the boundary of the City of San Diego and immediately adjacent to the City of Imperial Beach. While the project site is within the boundary of the City of San Diego, the District functions as an independent agency and member cities do not have discretionary approval authority over projects that occur entirely on District tidelands. As such, the planning documents and policies of these cities do not apply to components of the proposed project on District tidelands. For the proposed project, it should be noted that there are improvements and other utilities that may need to be constructed outside of District tidelands and wholly within the jurisdiction of either the City of San Diego or the City of Imperial Beach. If such improvements are necessary, consistent with the description and those identified in this EIR, approvals may be required from those agencies. Any such components would be subject to the planning and regulatory requirements of the respective city in which they occur.

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 CDPs.

The PMP is organized into four sections: (I) Introduction, (II) Planning Goals, (III) Master Plan Interpretation, and (IV) Precise Plans.

- Section II establishes planning goals and related policies that pertain to development and operation of lands within the District's jurisdiction.
- Section III provides additional land use objectives and criteria that apply to specific land use types, including commercial, industrial, recreation, conservation, military, and public facility uses.
- Section IV identifies 10 Planning Districts, each of which is guided by a Precise Plan that guides future development.

San Diego Unified Port District Port Master Plan Update

The District is in the process of conducting a comprehensive update of the PMP, known as the PMPU. Although the details of the PMPU are still in the process of being developed, on August 12, 2014, the District accepted, 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 Vision Process was further refined through consideration of a core set of comprehensive ideas, memorialized in a Framework Report, that informs the development of the Draft PMPU document.

Additionally, BPC Policy No. 752 (District Clerk Document No. 61131) consists of guidelines for conducting project consistency review related to the integrated PMPU. This project consistency review process ensures current and future development proposals are considered as the District conducts a comprehensive and integrated update to the PMP.

San Diego Bay Integrated Natural Resources Management Plan

The INRMP is a long-term, collaborative strategy for managing the bay's natural resources, and the primary means by which the U.S. Navy and District jointly plan natural resources work in San Diego Bay. The INRMP became a joint initiative with the District in recognition of the need for partnership in stewardship and compliance with environmental laws, while supporting the ability of the Navy and the District to accomplish their mission-related work. Required by the Sikes Act Improvement Act of 1997 for the U.S. Department of Defense, it is the primary means by which natural resources compliance and stewardship priorities are set and funding requirements are determined. A commitment to implement priority projects, as funding permits, comes with the signatures in the front of the INRMP.

In 2002, the first INRMP for San Diego Bay was signed by the Commander, Navy Region Southwest, the Chair of the BPC, the Regional Administrator of NMFS, the Field Supervisor of USFWS, and the Regional Director of California Department of Fish and Game. The 2013 revision continues many of that plan's objectives and strategies, while expanding coverage on water quality, sediment quality, sustainable development, and other topics.

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.

3.10.4 Environmental Impacts

This section presents the methodology applied for the evaluation, the significance criteria used for considering project impacts related to land use resources, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level component includes a PMPA to incorporate Parcels A, B, and C into the PMP, which requires a land use designation be assigned. The parcels would be assigned a commercial recreation land use designation. At this time, no construction or operational activities are proposed on Parcels A, B, and C. The impact analysis below evaluates a reasonable scenario of commercial development on Parcels A, B, and C. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to a CDP and project approval, and any additional CEQA compliance.

Methodology

The following impact analysis evaluates land use and planning impacts that would result should the proposed project be implemented. Based upon the existing conditions described in Section 3.10.2, the impact analysis 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.

The sea level rise guidance consistency analysis is based on the Hydrodynamic Modeling Report, prepared by Environmental Science Associates (Appendix K).

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to land use/planning are considered significant if any of the following occur:

- a) Physically divide an established community
- b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating a significant environmental effect

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (a) would result in no impact for the project-level wetland mitigation bank creation and program-level PMPA, and therefore is not included in the analysis below (see Section 5.4, Effects Found Not to be Significant, in Chapter 5 of the EIR).

Moreover, the project site is within the coastal zone and, pursuant to EO S-13-08, the CCC considers the potential impacts of sea level rise on a proposed project in determining consistency with the CCA and the 2018 Sea Level Rise Policy Guidance. Therefore, this issue is addressed under Threshold (b), and a consistency analysis is provided in Table 3.10-2.

Impact Analysis

Threshold (b) Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Project Level – Wetland Mitigation Bank and Program Level – Parcels A, B, and C Port Master Plan Amendment

The applicable land use plans, policies, or regulations that apply to the project include the PMP, PMPU, the CCA, and the San Diego Bay INRMP. Additionally, the CCC Sea Level Rise Policy Guidance and OPC's State of California Sea Level Rise Guidance apply to the extent that the proposed project would exacerbate projected damage to the environment due to sea level rise. At this time, no specific projects are proposed on Parcels A, B, and C, and the District would assign a land use designation of commercial recreation.

Table 3.10-1 provides project consistency with the PMP, PMPU, the CCA, and the San Diego Bay INRMP, including specific goals, policies, or objectives and a summary of the consistency analysis is discussed below.

PORT MASTER PLAN

The project would require an amendment to the PMP that would incorporate the District-owned Bank Parcel and Parcels A, B, and C. The Bank Parcel would be assigned a land use designation of wetlands, and Parcels A, B, and C would be assigned a land use designation of commercial recreation. While the type of future development on Parcels A, B, and C have not been identified, the PMP allows for the following uses under the commercial recreation land use designation: hotels, restaurants, convention center, recreational vehicle parks, specialty shopping, pleasure craft marinas, water-dependent educational and recreational program facilities and activities, dock and dine facilities, and sportfishing.

As discussed in Table 3.10-1, the proposed project would be consistent with the planning goals outlined in the PMP, as well as the PMPU guiding principles. The creation of a wetland mitigation bank would create new wetland habitat, which would enhance visual and natural resources. Any future commercial development would be required to undergo approval of tenant project plans to ensure consistency with the PMP. As discussed in Section 3.1, Aesthetics, BPC Policy No. 357 outlines the approval requirements for tenant project plans. As part of BPC Policy No. 774, the profits from selling mitigation credits and any revenue the District accrues from development of Parcels A, B, and C would be placed in an EDF to be spent on economic development and public improvement projects in Imperial Beach and in a portion of the City of San Diego's City Council District 8, adjacent to the project site; therefore, creating opportunities for future use and enjoyment. The project would not create new hazards for the public and would not change public access in the area.

The wetland mitigation bank would also be consistent with the specific conservation land use goals outlined in Section III of the PMP. The proposed project would create high-quality habitat and enhance the ecological function of the area. This would be consistent with the conservation land use, as well as the specific wetlands designation. Additionally, the wetland mitigation bank is consistent with the South Bay Salt Lands Planning District 9 precise plan concept which states "the plan concept proposed the utilization of the area for habitat conservation and to retain the open space character of South San Diego Bay."

CALIFORNIA COASTAL ACT

Bank Parcel/Wetland Mitigation Bank. The proposed wetland mitigation bank does not involve development activities within any wetland, estuary, or existing recreation area indicated in Part IV of the coastal plan. Additionally, the proposed wetland mitigation bank is not an appealable development per the provisions of Section 30715 of the CCC and the standard of review for the wetland mitigation bank associated PMPA is Chapter 8 of the CCA.

Berm Breach Site. To connect the Bank Site to tidal flow, the berm in the northwest corner of the Bank Site would be breached. This small portion of the project site (approximately 0.33 acre), referred to as the berm breach site, is located on USFWS NWR land, which is not District-owned and would not be incorporated into the PMP. Given that a portion of the project is located on federal land, a federal consistency certification is required. As such, the berm breach site is evaluated for consistency with applicable Chapter 3 policies of the CCA.

Parcels A, B, and C. The District's proposal to incorporate Parcels A, B, and C includes assigning a commercial recreation designation to the parcels. Pursuant to section 30715(a) of the CCA, CDPs for certain categories of development, such as commercial uses not principally devoted to the sale of commercial goods utilized for water-oriented purposes, are appealable to the CCC (refer to CCA Section 30715(a) for the full list of appealable categories of development). No specific development or uses have been determined for the subject parcels at this time; therefore, it's possible that future development of Parcels A, B, and C could involve development and/or uses that are appealable to the CCC. As such, the program-level portion of the proposed PMPA for Parcels A, B, and C is evaluated for consistency with applicable Chapter 8 policies of the CCA, as well as applicable Chapter 3 policies of the CCA due to a future development potentially being appealable to the CCC.

Summary

As discussed in Table 3.10-1, the proposed project would be consistent with the CCA. The wetland mitigation bank would be consistent with applicable policies in Chapter 8 of the CCA. Future commercial development on Parcels A, B, and C would also be consistent with applicable policies in Chapter 8 of the CCA because future development would maintain the biological productivity and quality of coastal waters by minimizing adverse effects of wastewater, controlling runoff, and minimizing erosion.

Additionally, CCA Section 30708 requires all port-related development to be located, designed, and constructed to minimize substantial adverse environmental impacts and provide for other beneficial uses consistent with the public trust, including recreation uses. Parcels A, B, and C are contiguous with other developed areas, any new development on these parcels would concentrate development adjacent to existing services and minimize adverse environmental impacts in conformance with Coastal Act, Section 30708.

The berm breach site and future commercial development would also be consistent with applicable policies in Chapter 3 of the CCA. CCA Chapter 3 policies regarding visual resources, environmentally sensitive habitat, wetlands, marine resources, water quality, cultural resources, coastal hazards, public access, recreation, and new development were evaluated to determine consistency. The berm breach site would be consistent with these policies. The proposed commercial recreation land use designations for Parcels A, B, and C are consistent with CCA policies that require concentration of new development contiguous with, or in close proximity to, existing developed areas, providing commercial facilities within or adjoining residential development or in other areas that would minimize the use of coastal access roads. Future commercial development and land use proposals would be



evaluated for consistency with applicable PMP and CCA policies to ensure that any new development is compatible with existing land uses. Future commercial development would be evaluated for construction related and operational traffic and mobility impacts and appropriate mitigation identified, if required in order to address potential adverse impacts on public access roads.

SAN DIEGO BAY INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN

The proposed project is consistent with the INRMP, as discussed in Table 3.10-1. The creation of the wetland mitigation bank would increase the quantity and quality of coastal habitat in San Diego Bay that would maximize ecosystem function, result in a net gain of various habitats, and create wildlife habitat. Any future commercial development would be designed and constructed to not interfere with the function of the restored wetlands created for the wetland mitigation bank. Therefore, future projects would protect natural resources. As discussed in Section 3.3, Biological Resources, any impacts on natural resources on Parcels A, B, or C would be mitigated or compensated for per requirements from the applicable agency.

Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<i>PMP – Section II Planning Goals</i>	
<p>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.</p>	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The wetland mitigation bank would create new opportunities for enjoyment of the tidelands by creating new wetland habitat, which would result in improved visual resources and wildlife observation. Additionally, profits from selling mitigation credits from the wetland mitigation bank would be placed in a fund to be spent on economic development and public improvement projects in Imperial Beach and in a portion of the City of San Diego’s City Council District 8, adjacent to the project site, consistent with BPC Policy No. 774; therefore, creating opportunities for future use and enjoyment.</p> <p>Parcels A, B, and C – Consistent. Commercial development on Parcels A, B, and C would create new opportunities for enjoyment of the tidelands by creating new businesses. Additionally, net revenue derived from development of Parcels A, B and C would be placed in a fund to be spent on economic development and public improvement projects in Imperial Beach and in a portion of the City of San Diego’s City Council District 8, adjacent to the project site, consistent with BPC Policy No. 774; therefore, creating opportunities for future use and enjoyment.</p>
<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>Bank Parcel/Wetland Mitigation Bank - Consistent. The wetland mitigation bank would create new wetland habitat, which would result in improved visual resources and wildlife observation. Additionally, profits from selling mitigation credits from the wetland mitigation bank would be placed in a fund to be spent on economic development and public improvement projects in Imperial Beach and in a portion of the City of San Diego’s City Council District 8, adjacent to the project site, consistent with BPC Policy No.</p>

Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
	<p>774; therefore, creating opportunities for future use and enjoyment.</p> <p>Parcels A, B, and C – Consistent. Commercial development on Parcels A, B, and C would create new opportunities for enjoyment of the tidelands by creating new economic and social opportunities. Additionally, net revenue derived from development of Parcels A, B and C would be placed in a fund to be spent on economic development and public improvement projects in Imperial Beach and in a portion of the City of San Diego’s City Council District 8, adjacent to the project site, consistent with BPC Policy No. 774; therefore, creating opportunities for future use and enjoyment.</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 private enterprise to operate those necessary activities with both high and low margins of economic return. 	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The District determined creating a wetland mitigation bank that would generate economic return would be a consistent use of this property.</p> <p>Parcels A, B, and C – Consistent. As part of the EDF set up by BPC Policy No. 774, eligible projects applying for funding must (1) comply with the Port Act, and (2) generate jobs or economic benefit, or (3) constitute a public improvement within Imperial Beach and in a portion of the City of San Diego’s City Council District 8, adjacent to the project site, consistent with BPC Policy No. 774. As part of the approval process, the District would consider the economic return of a project.</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 tidelands 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>Bank Parcel/Wetland Mitigation Bank - Consistent. The creation of a wetland mitigation bank would create new natural communities that would be preserved. Additionally, profits from selling mitigation credits from the wetland mitigation bank would be placed in a fund to be spent on economic development and public improvement projects in Imperial Beach and in a portion of the City of San Diego’s City Council District No. 8, adjacent to the project site, consistent with BPC Policy No. 774.</p> <p>Parcels A, B, and C – Consistent. As part of the EDF set up by BPC Policy No. 774, eligible projects applying for funding must (1) comply with the Port Act, and (2) generate jobs or economic benefit, or (3) constitute a public improvement within Imperial Beach and in a portion of the City of San Diego’s City Council District 8, adjacent to the project site, consistent with BPC Policy No. 774. As part of the approval process, the District would consider the economic return of a project.</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>	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. In addition to placing the profits from selling mitigation credits from the wetland mitigation bank into an EDF, a process has been established to access the funds. Projects eligible for the funding must (1) comply with the Port Act, and (2) generate jobs or economic benefit, or (3) constitute a</p>



Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<ul style="list-style-type: none"> The Port District will cooperate, when appropriate, with other local governmental agencies in comprehensive studies of existing financing methods and sources which relate to the physical development of the tidelands and adjacent uplands. 	<p>public improvement within Imperial Beach and adjacent portion of San Diego’s City Council District. Therefore, the District would cooperate with local government agencies.</p> <p>Parcels A, B, and C – Consistent. As part of the EDF set up by BPC Policy No. 774, eligible projects applying for funding must (1) comply with the Port Act, and (2) generate jobs or economic benefit, or (3) constitute a public improvement within Imperial Beach and in a portion of the City of San Diego’s City Council District 8, adjacent to the project site, consistent with BPC Policy No. 774. As part of the approval process, the District would consider the economic return of a project; therefore, the District would cooperate with local government agencies.</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. 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. 	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. As discussed in Section 3.1, Aesthetics, and Section 3.3, Biological Resources, the wetland mitigation bank would create new wetland habitat, which would result in improved visual resources and wildlife observation. The project would not result in noxious odors, excessive noise, or hazardous conditions.</p> <p>Parcels A, B, and C – Consistent. As discussed in Section 3.1, Aesthetics, any future commercial development would need to undergo approval of tenant project plans to ensure consistency with the PMP and BPC Policy No. 357.</p>
<p>Goal IX. The Port District will ensure physical access to the bay except as necessary to provide for the safety and security, or to avoid interference with waterfront activities.</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 ROW, 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>Bank Parcel/Wetland Mitigation Bank - Consistent. The wetland mitigation bank would not result in interference with waterfront activities. Public access in the area would remain the same.</p> <p>Parcels A, B, and C – Consistent. As discussed in Section 3.1, Aesthetics, development on Parcels A, B, and C would not interfere with views or access to the bay or open space.</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"> Cooperate with the RWQCB, the County Health Department, and other public agencies in a 	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The wetland mitigation bank would not result in a new source of pollutants that could impact water quality. The District would cooperate with the RWQCB and County Health Department, as appropriate, to obtain permits if necessary. As part of the maintenance and monitoring of the mitigation bank, water quality testing would occur.</p>

Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<p>continual program of monitoring water quality and identifying the source of any pollutant.</p> <ul style="list-style-type: none"> • Adopt ordinances, and take other legal and remedial action to eliminate sources of pollution. 	<p>Parcels A, B, and C – Consistent. As discussed in Section 3.9, Hydrology and Water Quality, future commercial development would be required to comply with applicable regulations pertaining to water quality. Applicable regulations include the NPDES General Permit, the District’s JRMP, and the District’s BMP Design Manual. During construction a SWPPP would be prepared and implemented, as required by the NPDES General Permit, and a SWQMP, as required by the District, would be prepared for any operation of the parcels.</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 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 apprised of the growing body of knowledge on ecological balance and interrelationships. • Administer the natural resources so that impacts upon natural resource values remain compatible with the preservation requirements of the public trust. 	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The proposed project would result in enhanced natural resources and create a valuable and usable resource.</p> <p>Parcels A, B, and C – Consistent. Any future commercial development would be designed and constructed to not interfere with the function of the restored wetlands created for the wetland mitigation bank. Therefore, future projects would protect natural resources. As discussed in Section 3.3 Biological Resources, any impacts on natural resources on Parcels A, B, or C would be mitigated or compensated for per requirements from the applicable agency. As a result of implementation of MM BR-1, MM BR-2, MM BR-3, MM BR-4, MM BR-5, MM BR-7, MM BR-8, and MM BR-10 the proposed project would protect, preserve, and enhance natural resources.</p> <ul style="list-style-type: none"> • MM BR-1 would require implementation of biological resource protection measures during construction, which would reduce impacts on special-status plants and wildlife by requiring a range of measures, such as WEAP training and requiring vegetation removal occur outside of bird breeding season or if during the season per the direction of a qualified biologist. • MM BR-2 would require preconstruction rare plant surveys, which would identify target species that would need to be restored. • MM BR-3 would require restoration of temporary impacts, which would restore suitable habitat. • MM BR-4 would require preconstruction avian surveys for federally and state listed species to determine presence of these species and install appropriate buffers. • MM BR-5 would require preconstruction surveys for burrowing owl to determine presence of the species and install appropriate buffers. • MM BR-7 would require implementation of biological resource protection measures during operation. • MM BR-8 would require wildlife surveys be conducted on Parcels A, B, and C prior to construction to determine presence of species in order to avoid impacts.



Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
	<ul style="list-style-type: none"> MM BR-10 would require compensatory mitigation for impacts on WOUS, CCC wetlands, and CDFW-regulated streambed, which would ensure no loss of aquatic function.
<p><i>PMP – Section III. Conservation Land Use Objectives and Criteria (only applicable to Bank Parcel/Wetland Mitigation Bank)</i></p>	
<p>Natural marine resource utilization activities on tidelands should:</p> <ul style="list-style-type: none"> Be planned and located so as to present minimum conflicts with existing and proposed incompatible uses 	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The creation of a wetland mitigation bank would not conflict with existing land uses.</p>
<ul style="list-style-type: none"> Promote the multiple utilization of the unique plant, shellfish, fish, and wildlife resource of the bay 	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The creation of a wetland mitigation bank would result in natural resources and create new habitat for the unique plant, shellfish, fish, and wildlife resources of the bay.</p>
<ul style="list-style-type: none"> Encourage the protection and restoration of functional areas which have a high ecological value. 	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The creation of a wetland mitigation bank would result in the restoration of functional areas and create high ecological value.</p>
<ul style="list-style-type: none"> Be accessible to the public for non-appropriative uses consistent with nature interpretive functions. 	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The project site would be accessible as a visual resource for the public.</p>
<ul style="list-style-type: none"> Enhance the open space character of San Diego Bay 	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The creation of a wetland mitigation bank would enhance the open space character of the San Diego Bay by adding high quality habitat.</p>
<p><i>PMP – Section III. Commercial Land Use Objectives and Criteria (only applicable to Parcels A, B, and C)</i></p>	
<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>Parcels A, B, and C – Consistent. Parcels A and B are accessible from Palm Avenue and 13th Street, respectively, which connect to I-5 and SR 75. As discussed in Section 3.13, Transportation, access to Parcel C would be via Boundary Avenue at the northern terminus of Saturn Boulevard; however, there is currently no public access to Parcel C. As part of future development of Parcel C, the project proponent would be required to design and construct a road that complies with the City of San Diego policies.</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>Parcels A, B, and C – Consistent. As discussed in Section 3.1, Aesthetics, any future commercial development would need to undergo approval of tenant project plans to ensure consistency with the PMP and BPC Policy No. 357.</p>

Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<ul style="list-style-type: none"> A minimization of the competitive hazard to existing or potential business in the general vicinity. 	<p>Parcels A, B, and C – Consistent. In making its decision whether to adopt the proposed PMPA, the BPC would exercise its discretion as to whether the proposed project would minimize the competitive hazard to existing or potential business in the general vicinity.</p>
<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>Parcels A, B, and C – Consistent. No future commercial development has been identified at this time. However, as discussed in Section 3.1, Aesthetics, any future commercial development would need to undergo approval of tenant project plans to ensure consistency with the PMP and BPC Policy No. 357.</p>
<p><i>PMP Update Guiding Principles (Values and Standards)</i></p>	
<p>A. Achieve synergy among partnering agencies and stakeholders. Establish a long-range Vision and Master Plan consistent with the Port Act, CCA and California State Lands Public Trust Doctrine with implementation strategies that represent the interest of all Californians, all five member jurisdictions, California State Lands Commission, CCC, and U.S. Navy 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 the 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. While the proposed project does not involve the creation of a master plan or long-range vision, the project would not conflict with the District’s long-range planning goals.</p>
<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>Bank Parcel/Wetland Mitigation Bank – Consistent. The creation of a wetland mitigation bank would promote clean air and healthy communities by restoring wetland habitat and creating recreational opportunities. Additionally, profits from selling mitigation credits from the wetland mitigation bank would be placed in a fund to be spent on economic development and public improvement projects in Imperial Beach and in a portion of the City of San Diego’s City Council District No. 8, adjacent to the project site, consistent with BPC Policy No. 774.</p> <p>Parcels A, B, and C – Consistent. As discussed in Section 3.7, Greenhouse Gas Emissions, future commercial development would be required to comply with current California Building Standards Code, Title 24, CCR, which includes a broad set of requirements for energy conservation and green design.</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</p>	<p>Bank Parcel/Wetland Mitigation Bank – Consistent. The construction of the wetland mitigation bank would create temporary construction jobs but would not create long-term employment opportunities. However, profits from selling mitigation credits from the wetland mitigation bank would</p>



Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<p>acknowledges its role as a regional economic driver and 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, Ship Building and Repair, and Real Estate opportunities considering a progressive economic and business growth strategy.</p>	<p>be placed in a fund to be spent on economic development and public improvement projects in Imperial Beach and in a portion of the City of San Diego's City Council District No. 8, adjacent to the project site, consistent with BPC Policy No. 774.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA land use designation of commercial recreation would allow for future commercial development. Future commercial development would create new jobs and bring new sources of income and tax revenue to the District. In making its decision whether to adopt the proposed PMPA, the BPC would consider the economic, financial, and related policy concerns of this objective and 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 San Diego Bay is designated as a Strategic Port. The U.S. Navy is a major factor in the San Diego region both economically and for the defense of the U.S. It is essential to maintain and enhance maritime capabilities for national defense and logistics support objectives. 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>Bank Parcel/Wetland Mitigation Bank – Consistent. The wetland mitigation bank would not interfere with the status of the Port of San Diego as a working waterfront.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA land use designation of commercial recreation and future commercial development would not interfere with the status of the Port of San Diego as a working waterfront. The project site is not located near military or industrial facilities.</p>
<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 growth and proliferation of natural ecosystems. Create a sustainable fiscal budget and update it regularly.</p>	<p>Bank Parcel/Wetland Mitigation Bank – Consistent. The creation of a wetland mitigation bank would result in natural resources and the proliferation of natural ecosystems. Profits generated from the selling of mitigation credits would benefit the local community.</p> <p>Parcels A, B, and C – Consistent. As discussed in Section 3.7, Greenhouse Gas Emissions, future commercial development would be required to comply with MM GHG-1, which require buildings to be designed with GHG reducing measures, including current California Building Standards Code, Title 24, CCR, which includes a broad set of requirements for energy conservation and green design.</p>

Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
PMP 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, including sustaining and growing current commercial activities, 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>Bank Parcel/Wetland Mitigation Bank – Consistent. The creation of a wetland mitigation bank would result in enhanced ecosystems to benefit the health of the bay.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA land use designation of commercial recreation would maintain public access, result in less than significant impacts on water quality, and promote recreational activities.</p>
<p>2. Guarantee the public realm. Maximize waterfront access. The waters of San Diego Bay are the region’s precious and shared assets. The design of places along the waters’ edge should respond to multiple and different upland conditions and provides 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 NWR.</p>	<p>Bank Parcel/Wetland Mitigation Bank – Consistent. The creation of a wetland mitigation bank would not impact existing waterfront access. The wetland mitigation bank would enhance natural resources immediately adjacent to the NWR.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA land use designation of commercial recreation would maximize access except where security or public safety factors would negate, per Section III of the PMP. Existing public access would not be impacted.</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 and connectivity of both terrestrial and aquatic habitats.</p>	<p>Bank Parcel/Wetland Mitigation Bank – Consistent. The creation of a wetland mitigation bank would result in restored wetlands that would enhance the ecosystem.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA land use designation of commercial recreation would allow for future commercial development. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval.</p>
<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>Bank Parcel/Wetland Mitigation Bank – Consistent. The proposed project would not involve the creation of an open space plan; however, the creation of a wetland mitigation bank would result in open space.</p> <p>Parcels A, B, and C – Consistent. The proposed project would not involve the creation of an open space plan; however, the proposed PMPA land use designation of commercial recreation would not impact existing access to the Bayshore Bikeway or existing waterfront streets.</p>



Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<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 landbased 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. 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 would not involve the preparation of a mobility plan. The proposed project does not propose transportation infrastructure improvements on land or water.</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. 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 PMP is to clarify requirements that are flexible, agile, and adaptive to respond to changing economic conditions and needs overtime. Implement and adopt a PMP that is consistent with the Port Act, State Lands Commission requirements, and the CCA.</p>	<p>Not applicable. The project would not involve any changes to the District’s approval process.</p>
<p>CCA – Chapter 3 (applicable to Berm Breach Site and Parcels A, B, and C)¹</p>	
<p>Section 30107.5 Environmentally Sensitive Area</p>	<p>Berm Breach Site - Consistent. The proposed berm breach would facilitate restoration and enhancement of</p>

Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<p>“Environmentally sensitive area” means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.</p>	<p>water quality, marine, and upland habitat resources, and therefore, is a permitted use in environmentally sensitive areas. MMs have been identified and would be incorporated into the project to ensure environmentally sensitive habitat would be protected against any significant disruption of habitat values. In instances where impacts on environmentally sensitive habitat are necessary to restore the surrounding habitat, impacts would be minimized and fully mitigated. As a result of implementation of MM BR-1, MM BR-2, MM BR-3, MM BR-4, MM BR-9, and MM BR-10 the proposed project would protect environmentally sensitive areas.</p> <ul style="list-style-type: none"> • MM BR-1 would require implementation of biological resource protection measures during construction, which would reduce impacts on special-status plants and wildlife by requiring a range of measures, such as WEAP training and requiring vegetation removal occur outside of bird breeding season or if during the season per the direction of a qualified biologist. • MM BR-2 would require preconstruction rare-plant surveys, which would identify target species that would need to be restored. • MM BR-3 would require restoration of temporary impacts, which would restore suitable habitat. • MM BR-4 would require preconstruction avian surveys for federally and state-listed species to determine presence of these species and install appropriate buffers. • MM BR-9 would require preconstruction eelgrass surveys to determine presence of eelgrass and if eelgrass is present, then mitigation as required by the California Eelgrass Mitigation Policy would occur. • MM BR-10 would require compensatory mitigation for impacts on WOUS, CCC wetlands, and CDFW-regulated streambed, which would ensure no loss of aquatic function. <p>Parcels A, B, and C – Consistent. The proposed PMPA would incorporate Parcels A, B, and C into the PMP and assign a land use designation of commercial recreation to the parcels. MMs have been identified and would be incorporated into the project to ensure environmentally sensitive habitat would be protected against any significant disruption of habitat values. As discussed above, as a result of implementation of MM BR-1, MM BR-2, MM BR-3, MM BR-4, MM BR-5, MM BR-7, MM BR-8, and MM BR-10 the proposed project would protect environmentally sensitive areas. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the proposed PMPA is consistent with Section 30107.5 of the Coastal Act.</p>



Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<p>Section 30210 Access; recreational opportunities; posting</p> <p>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>Berm Breach Site - Consistent. The proposed project would facilitate the enhancement of public access and recreational opportunities in the project vicinity by restoring wetland and upland habitats and providing wildlife observation opportunities from the surrounding public roads and recreational facilities, which would be protected and maintained. Therefore, the project is consistent with the public access and recreation policies of Section 30210 of the Coastal Act.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA would incorporate Parcels A, B, and C into the PMP and assign a land use designation of commercial recreation to the parcels. The proposed PMPA land use designation of commercial recreation would maximize access, except where security or public safety factors would negate, per Section III of the PMP and would emphasize recreational opportunities. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the proposed PMPA is consistent with the public access and recreation policies of Section 30210 of the Coastal Act.</p>
<p>Section 30211 Development not to interfere with access</p> <p>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>Berm Breach Site - Consistent. The proposed project would facilitate the enhancement of public access and recreational opportunities in the project vicinity by restoring wetland and upland habitats and providing wildlife observation opportunities from the surrounding public roads and recreational facilities, which would be protected and maintained. Therefore, the project is consistent with the public access policies of Section 30211 of the Coastal Act.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA would incorporate Parcels A, B, and C into the PMP and assign a land use designation of commercial recreation to the parcels. The proposed PMPA land use designation of commercial recreation would maximize access except where security or public safety factors would negate, per Section III of the PMP. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the proposed PMPA is consistent with the public access policies of Section 30211 of the Coastal Act.</p>
<p>Section 30212 New development projects</p> <p>(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, (2) adequate access exists nearby, or, (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private</p>	<p>Berm Breach Site - Consistent. The proposed project would facilitate the enhancement of public access and recreational opportunities in the project vicinity by restoring wetland and upland habitats and providing wildlife observation opportunities from the surrounding public roads and recreational facilities, which would be protected and maintained. Therefore, the project is consistent with the public access policies of Section 30212 of the Coastal Act.</p>

Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<p>association agrees to accept responsibility for maintenance and liability of the accessway.</p>	<p>Parcels A, B, and C – Consistent. The proposed PMPA would incorporate Parcels A, B, and C into the PMP and assign a land use designation of commercial recreation to the parcels. The proposed PMPA land use designation of commercial recreation would maximize access except where security or public safety factors would negate, per Section III of the PMP. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the proposed PMPA is consistent with the public access policies of Section 30212 of the Coastal Act.</p>
<p>Section 30212.5 Public facilities; distribution</p> <p>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>Berm Breach Site - Consistent. The proposed project would facilitate the enhancement of public access and recreational opportunities in the project vicinity by restoring wetland and upland habitats and providing wildlife observation opportunities from the surrounding public roads and recreational facilities, which would be protected and maintained. Therefore, the project is consistent with the public facilities policies of Section 30212.5 of the Coastal Act.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA would incorporate Parcels A, B, and C into the PMP and assign a land use designation of commercial recreation to the parcels. The proposed PMPA land use designation of commercial recreation would maximize access except where security or public safety factors would negate, per Section III of the PMP. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the proposed PMPA is consistent with the public facilities policies of Section 30212.5 of the Coastal Act.</p>
<p>Section 30213 Lower cost visitor and recreational facilities; encouragement and provision; overnight room rentals</p> <p>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>Berm Breach Site - Consistent. The proposed project would facilitate the enhancement of public access and recreational opportunities in the project vicinity by restoring wetland and upland habitats and providing wildlife observation opportunities from the surrounding public roads and recreational facilities, which would be protected and maintained. Therefore, the project is consistent with the recreation facilities policies of Section 30213 of the Coastal Act.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA would incorporate Parcels A, B, and C into the PMP and assign a land use designation of commercial recreation to the parcels. The proposed PMPA land use designation of commercial recreation would encourage recreational opportunities. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the proposed PMPA is consistent with the recreation facilities policies of Section 30213 of the Coastal Act.</p>



Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<p>Section 30214 Implementation of public access policies; legislative intent</p> <p>(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>(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>(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>Berm Breach Site - Consistent. The proposed project would facilitate the enhancement of public access and recreational opportunities in the project vicinity by restoring wetland and upland habitats and providing wildlife observation opportunities from the surrounding public roads and recreational facilities, which would be protected and maintained. Therefore, the project is consistent with the public access policies of Section 30214 of the Coastal Act.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA would incorporate Parcels A, B, and C into the PMP and assign a land use designation of commercial recreation to the parcels. The proposed PMPA land use designation of commercial recreation would maximize access except where security or public safety factors would negate, per Section III of the PMP. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the proposed PMPA is consistent with the public access policies of Section 30214 of the Coastal Act.</p>
<p>Section 30223 Upland areas</p> <p>Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.</p>	<p>Berm Breach Site - Consistent. The proposed project would facilitate the enhancement of public access and recreational opportunities in the project vicinity by restoring wetland and upland habitats and providing wildlife observation opportunities from the surrounding public roads and recreational facilities, which would be protected and maintained. Therefore, the project is consistent with the upland areas policies of Section 30223 of the Coastal Act.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA would incorporate Parcels A, B, and C into the PMP and assign a land use designation of commercial recreation to the parcels. The proposed PMPA land use designation of commercial recreation would allow for recreational opportunities on land that is currently inaccessible to the public. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the proposed PMPA is consistent with the upland area policies of Section 30223 of the Coastal Act.</p>
<p>Section 30230 Marine resources; maintenance</p> <p>Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. 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</p>	<p>Berm Breach Site - Consistent. No dredging or filling of wetlands or coastal waters would occur; however, the proposed project includes dredging of coastal waters to restore tidal hydrology to the restored wetlands. Under Coastal Act, Section 30233(a), the proposed work is allowed because the project is considered a restoration project, there are no feasible less environmentally damaging alternatives, and feasible MMs would be</p>

Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<p>all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.</p>	<p>implemented to minimize the project’s adverse environmental effects.</p> <p>Although the project may have short-term construction related impacts on marine resources and water quality that would be addressed through construction BMPs and stormwater management, the berm breach is consistent with Coastal Act, Section 30230 because the project would improve water quality and biological productivity by reintroducing tidal influence and restoring the site to long-term functioning wetland habitat.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA would incorporate Parcels A, B, and C into the PMP and assign a land use designation of commercial recreation to the parcels. MMs have been identified and would be incorporated into the project to ensure environmentally sensitive habitat would be protected against any significant disruption of habitat values. As discussed above, as a result of implementation of MM BR-1, MM BR-3, MM BR-7, and MM BR-10 the proposed project would protect marine resources. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the proposed PMPA is consistent with Section 30230 of the Coastal Act.</p>
<p>Section 30231 Biological productivity; water quality</p> <p>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.</p>	<p>Berm Breach Site - Consistent. No dredging or filling of wetlands or coastal waters would occur; however, the proposed project includes dredging of coastal waters to restore tidal hydrology to the restored wetlands. Under Coastal Act, Section 30233(a), the proposed work is allowed because the project is considered a restoration project, there are no feasible less environmentally damaging alternatives, and feasible MMs would be implemented to minimize the project’s adverse environmental effects.</p> <p>Although the project may have short-term construction related impacts on marine resources and water quality that would be addressed through construction BMPs and stormwater management, the proposed berm breach is consistent with Coastal Act, Section 30231 because the project would improve water quality and biological productivity by reintroducing tidal influence and restoring the site to long-term functioning wetland habitat.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA would incorporate Parcels A, B, and C into the PMP and assign a land use designation of commercial recreation to the parcels. MMs have been identified and would be incorporated into the project to ensure environmentally sensitive habitat would be protected against any significant disruption of habitat values. As discussed above, as a result of implementation of MM BR-1, MM BR-3, MM BR-7, and MM BR-10 the proposed project would protect biological productivity and water quality. As discussed in Section 3.9, Hydrology and Water Quality, future</p>



Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
	<p>commercial development would be required to comply with the District’s JRMP and BMP Design Manual. A project-specific SWQMP would be prepared, and appropriate BMP and LID features would be implemented. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval.</p> <p>Therefore, construction of future development at the site would maintain the biological productivity and quality of coastal waters by minimizing adverse effects of wastewater, controlling runoff, and minimizing erosion in conformance with Section 30231 of the Coastal Act.</p>
<p>Section 30232 Oil and hazardous substance spills</p> <p>Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.</p>	<p>Berm Breach Site - Consistent. No dredging or filling of wetlands or coastal waters would occur; however, the proposed project includes dredging of coastal waters to restore tidal hydrology to the restored wetlands. Under Coastal Act, Section 30233(a), the proposed work is allowed because the project is considered a restoration project, there are no feasible less environmentally damaging alternatives, and feasible MMs would be implemented to minimize the project’s adverse environmental effects.</p> <p>Although the project may have short-term construction related impacts on marine resources and water quality that would be addressed through construction BMPs and stormwater management, the proposed berm breach is consistent with Coastal Act, Section 30232 because the project would improve water quality and biological productivity by reintroducing tidal influence and restoring the site to long-term functioning wetland habitat.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA would incorporate Parcels A, B, and C into the PMP and assign a land use designation of commercial recreation to the parcels. As discussed in Section 3.8, Hazards and Hazardous Materials, the handling of any hazardous substances would be in compliance with all applicable laws and regulations, including RCRA, U.S. DOT, Hazardous Waste Control Act, and the California Health and Safety Code. As discussed in Section 3.9, Hydrology and Water Quality, future commercial development would be required to comply with the District’s JRMP and BMP Design Manual. A project-specific SWQMP would be prepared, and appropriate BMP and LID features would be implemented. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the proposed PMPA is consistent with Section 30232 of the Coastal Act.</p>
<p>Section 30233 Diking, filling or dredging; continued movement of sediment and nutrients</p>	<p>Berm Breach Site - Consistent. No dredging or filling of wetlands or coastal waters would occur; however, the proposed project includes dredging of coastal waters to restore tidal hydrology to the restored wetlands. Under</p>

Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<p>(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 MMs have been provided to minimize adverse environmental effects, and shall be limited to the following:</p> <p>(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.</p> <p>(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.</p> <p>(3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.</p> <p>(4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.</p> <p>(5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.</p> <p>(6) Restoration purposes.</p> <p>(7) Nature study, aquaculture, or similar resource dependent activities.</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>(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.</p>	<p>Coastal Act, Section 30233(a), the proposed work is allowed because the project is considered a restoration project, there are no feasible less environmentally damaging alternatives, and feasible MMs would be implemented to minimize the project's adverse environmental effects.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA would incorporate Parcels A, B, and C into the PMP and assign a land use designation of commercial recreation to the parcels. MMs have been identified and would be incorporated into the project to ensure environmentally sensitive habitat would be protected against any significant disruption of habitat values. As discussed above, as a result of implementation of MM BR-1, MM BR-3, MM BR-7, and MM BR-10 the proposed project would protect marine resources. As discussed in Section 3.9, Hydrology and Water Quality, future commercial development would be required to comply with the District's JRMP and BMP Design Manual. A project-specific SWQMP would be prepared, and appropriate BMP and LID features would be implemented. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval.</p> <p>Therefore, construction of future development at the site would minimize adverse effects of wastewater, controlling runoff, and minimizing erosion in conformance with Section 30233 of the Coastal Act.</p>



Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<p>Section 30240 Environmentally sensitive habitat areas; adjacent developments</p> <p>(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.</p> <p>(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.</p>	<p>Berm Breach Site- Consistent. The proposed berm breach would facilitate restoration and enhancement of water quality, marine, and upland habitat resources, and therefore, is a permitted use in environmentally sensitive areas. MMs have been identified and would be incorporated into the project to ensure environmentally sensitive habitat would be protected against any significant disruption of habitat values. In instances where impacts on environmentally sensitive habitat are necessary to restore the surrounding habitat, impacts would be minimized and fully mitigated. As a result of implementation of MM BR-1, MM BR-2, MM BR-3, MM BR-4, MM BR-9, and MM BR-10 the proposed project would protect environmentally sensitive habitat areas.</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA would incorporate Parcels A, B, and C into the PMP and assign a land use designation of commercial recreation to the parcels. MMs have been identified and would be incorporated into the project to ensure environmentally sensitive habitat would be protected against any significant disruption of habitat values. As discussed above, as a result of implementation of MM BR-1, MM BR-2, MM BR-3, MM BR-4, MM BR-5, MM BR-7, MM BR-8, and MM BR-10 the proposed project would protect environmentally sensitive habitat areas. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the proposed PMPA is consistent with Section 30240 of the Coastal Act.</p>
<p>Section 30244 Archaeological or paleontological resources</p> <p>Where development would adversely impact archaeological or paleontological resources as identified by the SHPO, reasonable MMs shall be required.</p>	<p>Berm Breach Site - Consistent. The proposed berm breach would impact two known archaeological or historical resources. As discussed in 3.4, Cultural Resources, MM CR-1, MM CR-2, and MM CR-3 have been identified to reduce impacts on these resources.</p> <ul style="list-style-type: none"> • MM CR-1 would reduce impacts on archaeological sites CA-SDI-4360 and CA-SDI-19712 from destruction or alteration of potentially significant subsurface archaeological deposits through the recovery of scientifically consequential information from and about historical resources. • MM CR-2 would reduce impacts on the WSC Salt Works historic resource by requiring documentation of Pond 20 and development of educational materials prior to construction. • MM CR-3 would reduce impacts from disturbing human remains by identifying procedures if an inadvertent discovery is made during ground disturbing activities. Impacts on archaeological sites CA-SDI-4360 and CA-SDI-19712 would be reduced to less than significant and impacts on the historic resource WSC Salt Works would be reduced to less than significant.

Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
	<p>Reasonable MMs have been identified and therefore, the project is consistent with Section 30244 of the Coastal Act.</p> <p>Parcels A, B, and C – Consistent. The PMPA would impact two known archaeological resources. As discussed in 3.4, Cultural Resources, MM CR-1 and MM CR-3 have been identified to reduce impacts on these resources.</p> <p>Reasonable MMs have been identified and therefore, the project is consistent with Section 30244 of the Coastal Act.</p>
<p>Section 30250 Location; existing developed area</p> <p>(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>(b) Where feasible, new hazardous industrial development shall be located away from existing developed areas.</p> <p>(c) Visitor-serving facilities that cannot feasibly be located in existing developed areas shall be located in existing isolated developments or at selected points of attraction for visitors.</p>	<p>Berm Breach Site – Not Applicable</p> <p>Parcels A, B, and C – Consistent. The proposed PMPA is consistent with Coastal Act policies that require concentration of new development contiguous with, or in close proximity to, existing developed areas, providing commercial facilities within or adjoining residential development or in other areas that would minimize the use of coastal access roads. Parcels A, B, and C are located directly adjacent to existing roads, residential, and commercial development. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the proposed PMPA is consistent with Section 30250 of the Coastal Act.</p>
<p>Section 30251 Scenic and visual qualities, in part:</p> <p>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.</p>	<p>Berm Breach Site - Consistent. Visual impacts of the berm breach site would be limited to the construction period and temporary impacts would be minimal given that expansive, unimpeded public views to the San Diego Bay and surrounding natural open space areas would remain available. Once completed, the project would facilitate the enhancement of the visual quality of the project site through restoration of native wetland and upland habitat areas, which would also contribute to improving the aesthetic values of the larger San Diego Bay viewshed. Therefore, the project is consistent with Section 30251 of the Coastal Act.</p> <p>Parcels A, B, and C – Consistent. Potential future commercial development of Parcels A, B, and C would be developed in scale to ensure overall compatibility with surrounding residential and commercial uses. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval as outlined in BPC Policy 357. As discussed in Section 3.1, Aesthetics,</p>



Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
	<p>BPC Policy 357 requires development projects be reviewed by District staff. In addition, MM AES-1 and MM AES-2 have been identified to specifically address potential visual impacts from project-related lighting and glare. Therefore, the project is consistent with Section 30251 of the Coastal Act.</p>
<p>Section 30252 Maintenance and enhancement of public access</p> <p>The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing nonautomobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (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.</p>	<p>Berm Breach Site – Not Applicable</p> <p>Parcels A, B, and C –Consistent. The proposed PMPA is consistent with Coastal Act policies that require concentration of new development contiguous with, or in close proximity to, existing developed areas, providing commercial facilities within or adjoining residential development or in other areas that would minimize the use of coastal access roads. Parcels A, B, and C are located directly adjacent to existing roads, residential, and commercial development. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the proposed PMPA is consistent with Section 30252 of the Coastal Act.</p>
<p>Section 30253 Minimization of adverse impacts</p> <p>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>(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>(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>(d) Minimize energy consumption and VMT.</p>	<p>Berm Breach Site - Consistent. Overall, the proposed project is consistent with Coastal Act Section 30253 because it would minimize risks to life and property from seismic and flooding hazards, including sea level rise, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area. As discussed in Section 3.6, Geology and Soils, the berm breach, would not increase the risk of loss, injury or death. As discussed in Section 3.9, Hydrology and Water Quality, the berm breach could allow flood waters to enter the Bank Site rather than surrounding areas, like the mobile parks or Bayside Park, decreasing flooding in the surrounding areas compared to existing conditions.</p> <p>The proposed berm breach is consistent with the requirements imposed by the applicable air pollution control district and would not result in significant increase in energy consumption and VMT and is therefore consistent with Section 30253 of the Coastal Act.</p> <p>Parcels A, B, and C – Consistent. The PMPA includes a land use designation of commercial recreation for Parcels A, B, and C. Any future development would comply with CBC provisions regarding current seismic design and soil hazards. Additionally, per the CBC regulations, a geotechnical investigation report would be prepared prior to construction. As discussed in Section 3.9, Hydrology and Water Quality, future commercial development would be required to comply with the District’s JRMP and BMP</p>

Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
	<p>Design Manual. A project-specific SWQMP would be prepared, and appropriate BMP and LID features would be implemented, which would include hydromodification management flow control structural BMPs to reduce flooding impacts. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval.</p> <p>Potential future commercial development of Parcels A, B, and C would be consistent with the requirements imposed by the applicable air pollution control district. MM TRAN-1 is proposed and would require implementation of all feasible TDM measures. MM GHG-1 requires buildings be designed with energy efficient measures. Therefore, the PMPA is consistent with Section 30253 of the Coastal Act.</p>
<p>CCA – Chapter 8 (applicable to Bank Parcel/Wetland Mitigation Bank and Parcels A, B, and C)</p>	
<p>Section 30705 Diking, filling or dredging water areas</p> <p>(a) Water areas may be diked, filled, or dredged when consistent with a certified PMP only for the following:</p> <ol style="list-style-type: none"> (1) Such construction, deepening, widening, lengthening, or maintenance of ship channel approaches, ship channels, turning basins, berthing areas, and facilities as are required for the safety and the accommodation of commerce and vessels to be served by port facilities. (2) New or expanded facilities or waterfront land for port-related facilities. (3) New or expanded commercial fishing facilities or recreational boating facilities. (4) Incidental public service purposes, including, but not limited to, burying cables or pipes or inspection of piers and maintenance of existing intake and outfall lines. (5) Mineral extraction, including sand for restoring beaches, except in biologically sensitive areas. (6) Restoration purposes or creation of new habitat areas. (7) Nature study, mariculture, or similar resource-dependent activities. (8) Minor fill for improving shoreline appearance or public access to the water. <p>(b) The design and location of new or expanded facilities shall, to the extent practicable, take advantage of existing water depths, water circulation, siltation patterns, and means available to</p>	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. No dredging or filling of wetlands or coastal waters would occur on the Bank Site as part of the creation of the wetland mitigation bank. However, the proposed project includes dredging of coastal waters to restore tidal hydrology to the restored wetlands. Under Coastal Act, Section 30233(a), the proposed work is allowed because the project is considered a restoration project, there are no feasible less environmentally damaging alternatives, and feasible MMs would be implemented to minimize the project’s adverse environmental effects.</p> <p>As required by applicable regulation, and as discussed in Section 3.9, Hydrology and Water Quality, construction would require the implementation of BMPs and stormwater management, which would ensure that the proposed wetland mitigation project on the Bank Parcel is consistent with Section 30705 of the Coastal Act because the project would improve water quality and biological productivity by reintroducing tidal influence and restoring the site to long-term functioning wetland habitat.</p> <p>Parcels A, B, and C – Consistent. The PMPA includes a land use designation of commercial recreation for Parcels A, B, and C. Parcel A supports approximately 1.08 acre of wetland, and Parcel C supports approximately 0.11 acre of wetland. The wetlands on Parcel C are associated with Nestor Creek, and commercial development is not proposed within Nestor Creek. A portion of the wetlands on Parcel A are associated with the Otay River Tributary, and similarly, commercial development is not proposed within the tributary. However, there are wetlands on Parcel A that may be impacted by commercial development. As discussed above, as a result of implementation of MM BR-1, MM BR-3, and MM BR-10 the proposed project would protect natural resources. As discussed in Section 3.9, Hydrology and Water Quality, future commercial development would be required to comply with the District’s JRMP and BMP Design Manual. A</p>



Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<p>reduce controllable sedimentation so as to diminish the need for future dredging.</p> <p>(c) Dredging shall be planned, scheduled, and carried out to minimize disruption to fish and bird breeding and migrations, marine habitats, and water circulation. Bottom sediments or sediment elutriate shall be analyzed for toxicants prior to dredging or mining, and where water quality standards are met, dredge spoils may be deposited in open coastal water sites designated to minimize potential adverse impacts on marine organisms, or in confined coastal waters designated as fill sites by the master plan where such spoil can be isolated and contained, or in fill basins on upland sites. Dredge material shall not be transported from coastal waters into estuarine or fresh water areas for disposal.</p> <p>(d) For water areas to be diked, filled, or dredged, the commission shall balance and consider socioeconomic and environmental factors.</p>	<p>project-specific SWQMP would be prepared, and appropriate BMP and LID features would be implemented. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval.</p> <p>Construction of future development at the site would maintain the biological productivity and quality of coastal waters by minimizing adverse effects of wastewater, controlling runoff, and minimizing erosion in conformance with Section 30705 of the Coastal Act.</p>
<p>Section 30706 Fill</p> <p>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>Bank Parcel/Wetland Mitigation Bank - Consistent. No dredging or filling of wetlands or coastal waters would occur on the Bank Site as part of the creation of the wetland mitigation bank. However, the proposed project includes dredging of coastal waters to restore tidal hydrology to the restored wetlands. Under Coastal Act, Section 30233(a), the proposed work is allowed because the project is considered a restoration project, there are no feasible less environmentally damaging alternatives, and feasible MMs would be implemented to minimize the project’s adverse environmental effects.</p> <p>Although the project may have short-term construction related impacts on marine resources and water quality that would be addressed through construction BMPs and stormwater management, the proposed wetland mitigation project on the Bank Parcel is consistent with the Coastal Act because the project would improve water quality and biological productivity by reintroducing tidal influence and restoring the site to long-term functioning wetland habitat.</p> <p>Parcels A, B, and C – Consistent. The PMPA includes a land use designation of commercial recreation for Parcels A, B, and C. Parcel A supports approximately 1.08 acres of wetland, and Parcel C supports approximately 0.11 acres of wetland. The wetlands on Parcel C are associated with Nestor Creek, and commercial development is not proposed within Nestor Creek. A portion of the wetlands on Parcel A are associated with the Otay River Tributary, and similarly, commercial development is not proposed within the tributary. However, there are wetlands on Parcel A that may be impacted by commercial development. As discussed above, as a result of implementation of MM BR-1, MM BR-3, and MM BR-10 the proposed project would protect natural resources. As discussed in Section 3.9, Hydrology and Water Quality, future commercial</p>

Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
	<p>development would be required to comply with the District’s JRMP and BMP Design Manual. A project-specific SWQMP would be prepared, and appropriate BMP and LID features would be implemented. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the proposed PMPA is consistent with Section 30706 of the Coastal Act.</p>
<p>Section 30708 Location, design and construction of port-related developments (in part)</p> <p>All port-related developments shall be located, designed, and constructed so as to:</p> <p>(a) Minimize substantial adverse environmental impacts.</p> <p>(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.</p>	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The proposed wetland mitigation bank would minimize substantial adverse environmental impacts and would provide for beneficial uses consistent with the public trust, by creating wildlife habitat uses.</p> <p>Parcels A, B, and C – Consistent. Coastal Act, Section 30708 requires all port-related development to be located, designed, and constructed to minimize substantial adverse environmental impacts and provide for other beneficial uses consistent with the public trust, including wildlife habitat uses. As described above, the proposed PMPA would incorporate Parcels A, B, and C into the PMP and assign a land use designation of commercial recreation to the parcels. The proposed PMPA land use designation of commercial recreation would encourage recreational opportunities. Any future project-level commercial development proposals would require discretionary approvals by the District, such as but not limited to, a CDP and project approval. Therefore, the PMPA conforms to Section 30708 of the Coastal Act.</p>
San Diego Bay INRMP	
<p>Objective 4.1 Protect bay natural resources and their function by planning and acting at ecologically meaningful, hierarchical scales and time frames</p>	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The creation of the wetland mitigation bank would enhance the ecological function of the bay.</p> <p>Parcels A, B, and C – Consistent. Any future commercial development would be designed and constructed to not interfere with the function of the restored wetlands created for the wetland mitigation bank. Therefore, future projects would protect natural resources. As discussed in Section 3.3, Biological Resources, any impacts on natural resources on Parcels A, B, or C would be mitigated or compensated for per requirements from the applicable agency.</p>
<p>Objective 4.2.1 Ensure effective protection of a minimum quantity and quality of the remaining marine and coastal habitat in San Diego Bay, targeting a mix of habitat types that maximize ecosystem function and carrying capacity.</p>	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The creation of the wetland mitigation bank would increase the quantity and quality of coastal habitat in San Diego Bay that would maximize ecosystem function.</p> <p>Parcels A, B, and C – Consistent. Any future commercial development would be designed and constructed to not interfere with the function of the restored wetlands created for the wetland mitigation bank. Therefore, future projects</p>



Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
	<p>would protect natural resources. As discussed in Section 3.3, Biological Resources, and above, the proposed project would be required to implement MMs to protect natural resources on Parcels A, B, or C. As a result of implementation of MM BR-3, MM BR-7, MM BR-8, and MM BR-10 the proposed project would protect natural resources.</p>
<p>Objective 4.3.5 Achieve a long-term net gain in the area, function, value, and permanence of intertidal flats, and the physical conditions that support this habitat.</p>	<p>Bank Parcel/Wetland Mitigation Bank – Consistent. The creation of the wetland mitigation bank would achieve a net gain in intertidal flats.</p> <p>Parcels A, B, and C – Consistent. Any future commercial development would be designed and constructed to not interfere with the function of the restored wetlands created for the wetland mitigation bank. Therefore, future projects would protect natural resources. As discussed in Section 3.3, Biological Resources, and above, the proposed project would be required to implement MMs to protect natural resources on Parcels A, B, or C. As a result of implementation of MM BR-3, MM BR-7, MM BR-8, and MM BR-10 the proposed project would protect natural resources.</p>
<p>Objective 4.3.6 Ensure no net loss of existing structure and function of salt marsh habitat, and achieve a long-term net gain in its quantity, quality, and permanence.</p>	<p>Bank Parcel/Wetland Mitigation Bank – Consistent. The creation of the wetland mitigation bank would ensure no net loss of existing salt marsh habitat and result in a long-term net gain in salt marsh habitat.</p> <p>Parcels A, B, and C – Consistent. Any future commercial development would be designed and constructed to not interfere with the function of the restored wetlands created for the wetland mitigation bank. Therefore, future projects would protect natural resources. As discussed in Section 3.3, Biological Resources, and above, the proposed project would be required to implement MMs to protect natural resources on Parcels A, B, or C. As a result of implementation of MM BR-3, MM BR-7, MM BR-8, and MM BR-10 the proposed project would protect natural resources.</p>
<p>Objective 4.3.8 Protect and enhance the important wildlife functions of the salt ponds, with emphasis on special status birds, shorebird foraging and roosting, and sea bird nesting.</p>	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The creation of the wetland mitigation bank would enhance wildlife function of the salt ponds by creating new habitat for foraging and roosting.</p> <p>Parcels A, B, and C – Consistent. Any future commercial development would be designed and constructed to not interfere with the function of the restored wetlands created for the wetland mitigation bank. Therefore, future projects would protect natural resources. As discussed in Section 3.3, Biological Resources, and above, the proposed project would be required to implement MMs to protect natural resources on Parcels A, B, or C. As a result of implementation of MM BR-3, MM BR-7, MM BR-8, and MM BR-10 the proposed project would protect natural resources.</p>

Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
<p>Objective 4.3.9 Ensure no net loss of availability, structure, and function of high value adjacent uplands, and achieve a long-term net gain in their quantity, quality, and permanence.</p>	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The creation of the wetland mitigation bank would restore the existing upland habitat around the new wetlands.</p> <p>Parcels A, B, and C – Consistent. Any future commercial development would be designed and constructed to not interfere with the function of the restored wetlands created for the wetland mitigation bank. Therefore, future projects would protect natural resources. As discussed in Section 3.3, Biological Resources, and above, the proposed project would be required to implement MMs to protect natural resources on Parcels A, B, or C. As a result of implementation of MM BR-3, MM BR-7, MM BR-8, and MM BR-10 the proposed project would protect natural resources.</p>
<p>Objective 4.3.10 Allow river mouths and floodplains to fulfill or at least mimic their natural ecological function as an intermittent and episodic source of sedimentation, organic matter, and freshwater input for the bay.</p>	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. As discussed in the Hydrodynamic Modeling Report (Appendix K), the creation of the wetland mitigation bank would allow the existing floodplain to function similarly to existing conditions.</p> <p>Parcels A, B, and C – Consistent. As discussed in the Hydrodynamic Modeling Report (Appendix K), the creation of the wetland mitigation bank would allow the existing floodplain to function similarly to existing conditions. Any future commercial development would be required to determine impacts on floodplains that occur in the project area.</p>
<p>Objective 4.4.1 Minimize the harmful ecological, economic, and human health impacts of aquatic invasive species in San Diego Bay.</p>	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The creation of the wetland mitigation bank would not result in opportunities for aquatic invasive species to enter the bay, such as on the hull of boats. Part of the monitoring and maintenance program for the mitigation bank would include monitoring for invasive species.</p> <p>Parcels A, B, and C – Consistent. Any future commercial development would be designed and constructed to not interfere with the function of the restored wetlands created for the wetland mitigation bank. Therefore, future projects would protect natural resources. As discussed in Section 3.3, Biological Resources, and above, the proposed project would be required to implement MMs to protect natural resources on Parcels A, B, or C. As a result of implementation of MM BR-1, MM BR-3, MM BR-7, MM BR-8, and MM BR-10 the proposed project would protect natural resources.</p>
<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>Bank Parcel/Wetland Mitigation Bank - Consistent. The creation of the wetland mitigation bank would result in the creation of foraging and roosting habitat for resident and migratory birds.</p> <p>Parcels A, B, and C – Consistent. Any future commercial development would be designed and constructed to not interfere with the function of the restored wetlands created for the wetland mitigation bank. Therefore, future projects</p>



Table 3.10-1. Project-Level Consistency with Applicable Land Use Plans, Policies, or Regulations

Goal, Policy, Objective	Project Consistency
	<p>would protect natural resources. As discussed in Section 3.3, Biological Resources, and above, the proposed project would be required to implement MMs to protect natural resources on Parcels A, B, or C. As a result of implementation of MM BR-3, MM BR-7, MM BR-8, and MM BR-10 the proposed project would protect natural resources.</p>
<p>Objective 4.4.6.4 Due to a local decline in western snowy plovers, identify and correct the problem related to water quality, invertebrates, and sick or dying snowy plovers. Protect the listed western snowy plover population inhabiting San Diego Bay and seek to contribute to its recovery.</p>	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The creation of the wetland mitigation bank would impact approximately 13.5 acres of potential low-quality nesting habitat. Western snowy plover exhibits high breeding site fidelity, so the probability of the site becoming occupied by breeding western snowy plover in the future when currently not utilized for breeding is low. . As discussed in Section 3.3, Biological Resources, and above, as a result of implementation of MM BR-1, MM BR-3, and MM BR-4 the proposed project would protect western snowy plover.</p> <p>Parcels A, B, and C – Consistent. Any future commercial development would be designed and constructed to not interfere with the function of the restored wetlands created for the wetland mitigation bank. Therefore, future projects would protect natural resources. As discussed in Section 3.3, Biological Resources, and above, the proposed project would be required to implement MMs to protect natural resources on Parcels A, B, or C. As a result of implementation of MM BR-3, MM BR-4, MM BR-7, MM BR-8, and MM BR-10 the proposed project would protect natural resources.</p>
<p>Objective 5.2.1 Conduct necessary dredging and dredge disposal in an environmentally and economically sound manner.</p>	<p>Bank Parcel/Wetland Mitigation Bank - Consistent. The proposed project would follow all applicable regulations regarding dredging and disposal of dredge material.</p> <p>Parcels A, B, and C – Consistent. Any future commercial development would not require dredging.</p>

Notes:

¹ CCA Chapter 3 consistency analysis is for policies consistent with CZMA and for appealable categories of development (CCA Section 30715)

BMP=best management practice; BPC=Board of Port Commissioners; CBC=California Building Code; CCA=California Coastal Act; CCC=California Coastal Commission; CCR=California Code of Regulations; CDFW=California Department of Fish and Wildlife; CDP=Coastal Development Permit; CZMA=Coastal Zone Management Act; DOT=Department of Transportation; EDF=Economic Development Fund; GHG=greenhouse gas; I-5=Interstate 5; INRMP=Integrated Natural Resources Management Plan; JRMP=Jurisdictional Runoff Management Program LID=low impact development; MM=mitigation measure; NPDES=National Pollutant Discharge Elimination System; NWR=National Wildlife Preservation; PMP=Port Master Plan; PMPA=Port Master Plan Amendment; RCRA=Resource Conservation and Recovery Act of 1976; ROW=right-of-way; RWQCB=Regional Water Quality Control Board; SHPO=State Historic Preservation Officer; SR=State Route; SWPPP=Storm Water Pollution Prevention Plan; SWQMP=Stormwater Quality Management Plan; TDM=Transportation Demand Management; VMT=Vehicle Miles Traveled; WEAP=Worker Environmental Awareness Program Training; WOUS=Waters of the United States; WSC=Western Salt Company

CONCLUSION

As discussed above and in Table 3.10-1, the proposed project would be consistent with the PMP, PMPU, CCA, and the San Diego Bay INRMP. Overall, with adherence to existing regulations, such as the District's JRMP and BMP Design Manual, and implementation of resource-specific mitigation measures (MM AES-1, MM AES-2 [see Section 3.1, Aesthetics], MM BR-1, MM BR-2, MM BR-3, MM BR-4, MM BR-5, MM BR-6, MM BR-7, MM BR-8, MM BR-9, MM BR-10 [see Section 3.3, Biological Resources], MM CR-1, MM CR-2, MM CR-3 [see Section 3.4, Cultural Resources], MM GHG-1 [see Section 3.7, Greenhouse Gas Emissions], and MM TRAN-1 [see Section 3.13, Transportation]), the proposed project would maintain consistency with all applicable land use plans, policies, or regulation. Impacts from the proposed project would be less than significant.

SEA LEVEL RISE GUIDANCE

Projections of global sea level rise are well-documented and investigated, with recent research projecting sea level rise on the order of between 2 and 10 feet by 2100 in California (Griggs et al. 2017). The Hydrodynamic Modeling Report (Appendix K) details the methodology used to select the sea level rise scenarios that were modeled. The methodology considered guidance from OPC's State of California Sea Level Rise Guidance (OPC 2018), CCC's Sea Level Rise Policy Guidance (CCC 2018), and the District's Sea Level Rise Vulnerability Assessment and Coastal Resiliency Report (San Diego Unified Port District 2019). To assess the potential flood impacts, five sea level rise amounts were selected to bracket the range of potential projections: 0.7, 1.4, 2.6, 4.5, and 7.0 feet. These amounts take into consideration both the District-recommended scenarios (0.7, 1.4, 2.6, and 4.5 feet) and state recommendations to evaluate the medium-high risk aversion projection at 2100 (7.0 feet).

Typical Tides

The five sea level rise scenarios were modeled with typical tidal conditions to understand the long-term tidal conditions within the wetland mitigation bank. The modeling results show that with sea level rise of 1.4 feet or less under typical tides (i.e., no storm event), the tides at the site show some muting at higher water levels, due to the constraint of the Otay River geometry. As the Otay River scours to accommodate the increasing tidal prism, the higher tide levels are expected to increase. With sea level rise at 2.6 feet or above, the predicted water levels at the site increase linearly with sea level rise (e.g., with 4.5 feet of sea level rise, water levels increase 4.5 feet). By 7.0 feet of sea level rise, the tides inundate the salt ponds north of the site regularly, so the Otay River geomorphology becomes less of a factor in the water levels at the site, as the bay has basically been extended to the edge of the site.

100-Year Storm Event

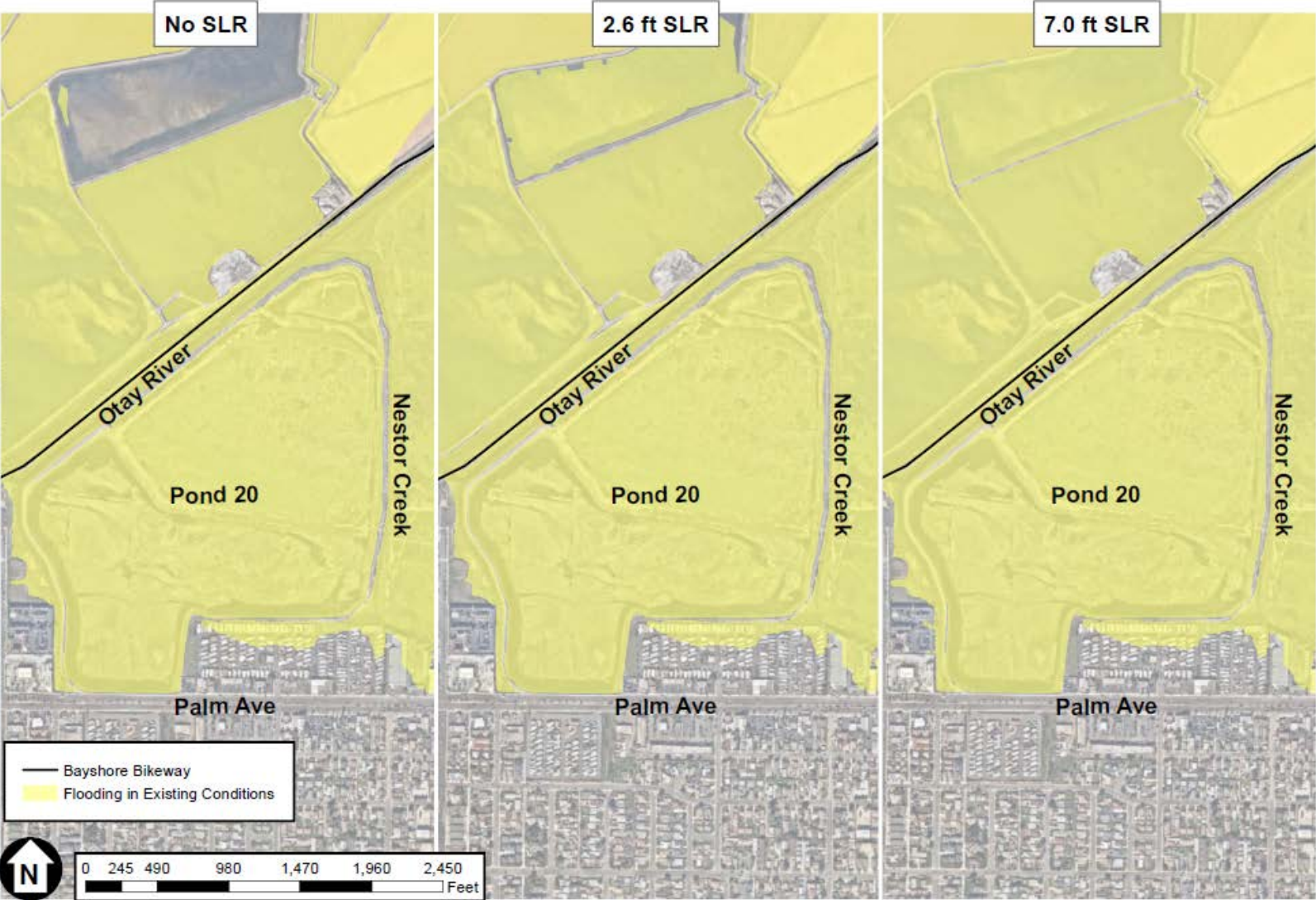
The five sea level rise scenarios were also modeled with the 100-year flood event to understand long-term flood risks with the project. The model results show that the 100-year storm event drives a large volume of water through the system, so the storm event influences the water levels more strongly than the tides. Unlike typical tidal conditions where the water levels increase linearly, under the 100-year storm event conditions, the water level increase is not linear. Rather, a 2.6-foot increase in sea level rise yields a 0.4-foot increase in flood levels at some locations. Figure 3.10-1 depicts the sea level rise flood extent at the project site under existing conditions during the 100-year storm event. The project site flood levels remain similar under all three scenarios, with the salt ponds to the north resulting in an increase in flooding under the three scenarios. The project is not expected to worsen flooding from sea level rise compared to existing conditions because the model results show that the project does not significantly change flood levels for the current sea level. The extent of flooding under project conditions is slightly less than what is depicted on Figure 3.10-1.



As discussed in Section 3.9, Hydrology and Water Quality, notable locations of flooding off site include the Bayside Palms Mobilehome Village, the Imperial Sands Mobile Park, and Bayside Park near Bayside Elementary School. As sea levels increase over time, the difference in flood levels at these locations between existing and project conditions decreases. By 7.0 feet of sea level rise, the model shows there is no difference in water levels at Bayside Park. At the two mobile home parks, project conditions would result in less flooding under all sea level rise scenarios.

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Figure 3.10-1. Sea Level Rise Flood Extent at the Project Site under Existing Conditions



Source: Appendix K of this EIR

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Conclusion

The proposed project would not exacerbate any existing and/or projected damage to the environment, including existing structures and sensitive resources, due to sea level rise. Without commercial development on Parcels A, B, and C, the project site would still experience temporary or permanent inundation from future sea level rise. Therefore, MMs are not required; however, best practices from the CCC recommend preparing for future sea level rise. Considerations should be made for future sea level rise when designing future commercial development on Parcels A, B, and C. Additionally, the proposed project would not conflict with applicable sea level rise policies, as discussed in Table 3.10-2. Therefore, impacts from the proposed project would be less than significant.

Table 3.10-2. Project Consistency with Applicable Sea Level Rise Policies

Goal, Policy, Objective	Project Consistency
CCC Sea Level Rise Policy Guidance	
Establish the sea level rise range for the proposed project	Consistent. The CCC's projections were included in the methodology for sea level rise modeling conducted for the project. Detailed methodology can be found in the Hydrodynamic Modeling Report (Appendix K).
Determine how sea level rise impacts may constrain the project site	Consistent. As discussed above and detailed in the Hydrodynamic Modeling Report (Appendix K), sea level rise impacts were modeled and analyzed for the project site.
Determine how the project may impact coastal resources over time, considering sea level rise	Consistent. As discussed above and detailed in the Hydrodynamic Modeling Report (Appendix K), sea level rise impacts were modeled and analyzed for the project site. The proposed project would not exacerbate any existing or projected damage to the environment.
Identify project alternatives to both avoid resource impacts and minimize risks to the project	Consistent. As discussed above and detailed in the Hydrodynamic Modeling Report (Appendix K), sea level rise impacts were modeled and analyzed for the project site. The proposed project would not exacerbate any existing or projected damage to the environment.
Finalize project design and submit permit application	Consistent. This would be completed after the CEQA process and prior to construction.
State of California Sea Level Rise Guidance	
Identify the nearest tide gauge	Consistent. As discussed in the Hydrodynamic Modeling Report (Appendix K), the tide gauge for the San Diego Bay was identified.
Evaluate project lifespan	Consistent. As discussed in the Hydrodynamic Modeling Report (Appendix K), the project lifespan would be beyond 2150.
For the nearest tide gauge and project lifespan, identify range of sea level rise projections	Consistent. As discussed above and detailed in the Hydrodynamic Modeling Report (Appendix K), sea level rise impacts were modeled and analyzed for the project site.

Table 3.10-2. Project Consistency with Applicable Sea Level Rise Policies

Goal, Policy, Objective	Project Consistency
Evaluate potential impacts and adaptive capacity across a range of sea level rise projections and emissions scenarios	Consistent. As discussed above and detailed in the Hydrodynamic Modeling Report (Appendix K), sea level rise impacts were modeled and analyzed for the project site. The proposed project would not exacerbate any existing or projected damage to the environment.
Select sea level rise projections based on risk tolerance and, if necessary, develop adaptation pathways that increase resiliency to sea level rise and include contingency plans if projects are exceeded.	Consistent. As discussed above and detailed in the Hydrodynamic Modeling Report (Appendix K), sea level rise impacts were modeled and analyzed for the project site. The proposed project would not exacerbate any existing or projected damage to the environment.

Notes:

CCC=California Coastal Commission; CEQA=California Environmental Quality Act

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

3.11 Noise

3.11.1 Overview

This section describes the existing noise conditions and applicable laws, regulations, and policies associated with noise and vibration, as well as an analysis of the potential effects resulting from implementation of the proposed project. Information contained in this section is summarized from the Noise and Vibration Report (Appendix M).

3.11.2 Acoustic and Vibration Terminology

Acoustic Terminology

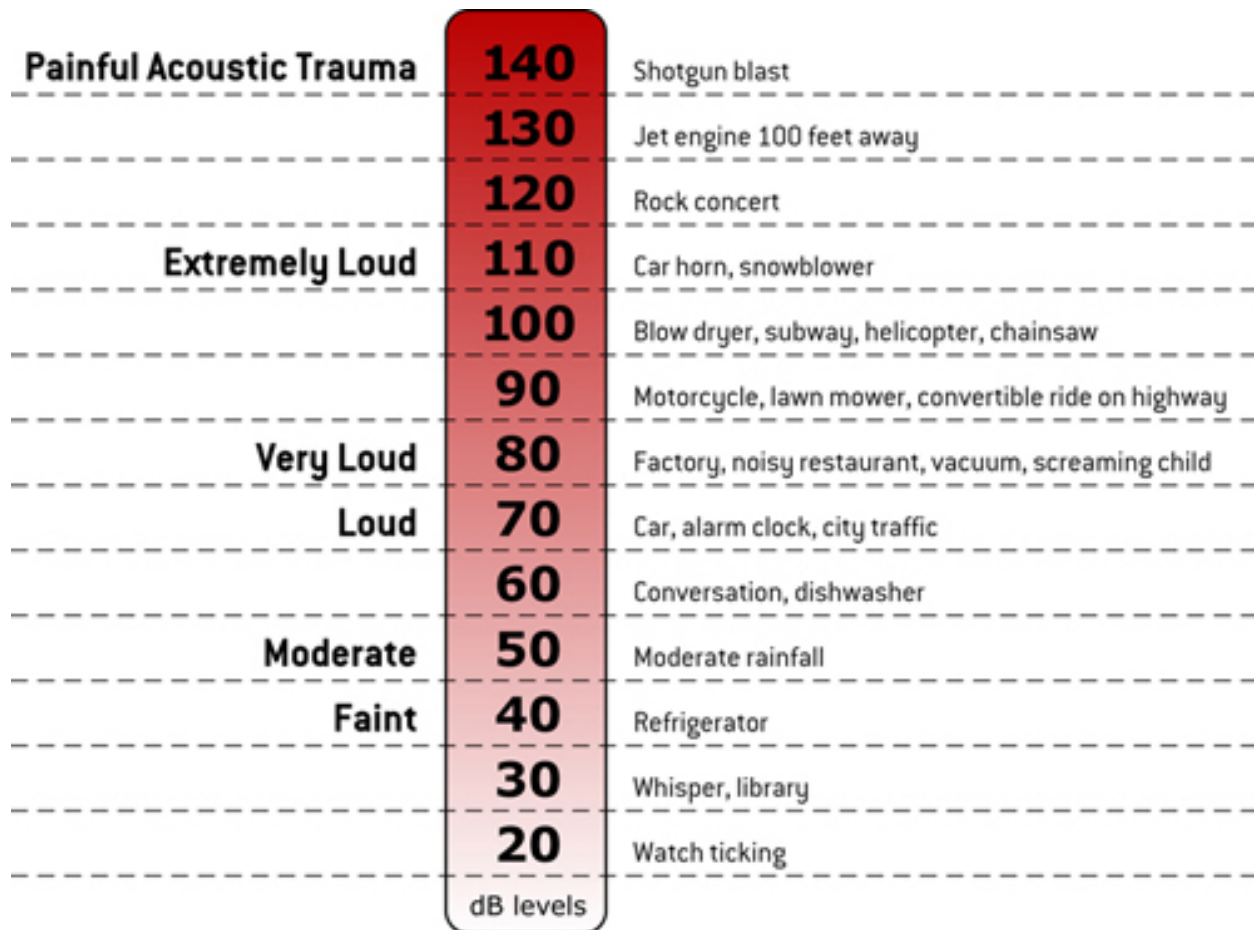
Noise levels are presented on a logarithmic scale to account for the large pressure response range of the human ear and are expressed in units of decibels (dB). A dB is defined as the ratio between a measured value and a reference value usually corresponding to the lower threshold of human hearing defined as 20 micropascals. Typically, a noise analysis examines 11 octave (or 33 1/3 octave) bands ranging from 16 hertz (low) to 16,000 hertz (high), which encompasses the human audible frequency range. Since the human ear does not perceive every frequency with equal loudness, spectrally varying sounds are often adjusted with a weighting filter. The A-weighted filter is applied to compensate for the frequency response of the human auditory system, known as A-weighted decibels (dBA).

An inherent property of the logarithmic decibel scale is that the sound pressure levels of two separate sources are not directly additive. For example, if a sound of 50 dBA is added to another sound of 50 dBA in the proximity, the result is a 3-decibel increase (or 53 dBA), not an arithmetic doubling to 100 dBA. With respect to how the human ear perceives changes in sound pressure level relative to changes in loudness, scientific research demonstrates the following general relationships between sound level and human perception for two sound levels with the same or very similar frequency characteristics:

- 1 dBA is the practical limit of accuracy for sound measurement systems and corresponds to an approximate 10 percent variation in the sound pressure level. A 1 dBA increase or decrease is a non-perceptible change in sound.
- A 3 dBA increase or decrease is a doubling (or halving) of acoustic pressure level and it corresponds to the threshold of change in loudness perceptible in a laboratory environment. In practice, the average person is not able to distinguish a 3 dBA difference in environmental sound outdoors.
- A 5 dBA increase or decrease is described as a perceptible change in sound level and is a discernible change in an outdoor environment.
- A 10 dBA increase or decrease is a tenfold increase or decrease in acoustic pressure level but is perceived as a doubling or halving in loudness (i.e., the average person would judge a 10 dBA change in sound level to be twice or half as loud).

Estimations of common noise sources and outdoor acoustic environments, and the comparison of relative loudness are presented on Figure 3.11-1.

Figure 3.11-1. Relative Loudness



Noise levels can be measured, modeled and presented in various formats. The noise metrics that were employed in this analysis have the following definitions:

- **Equivalent sound level (L_{eq}):** Conventionally expressed in dBA, the L_{eq} is the energy-averaged, A-weighted sound level over a specified time period. It is defined as the steady, continuous sound level over a specified time, which has the same acoustic energy as the actual varying sound levels over the specified period.
- **Maximum sound level (L_{max}):** The maximum A-weighted sound level, as determined during a specified measurement period. It can also be described as the maximum instantaneous sound pressure level generated by a piece of equipment or during a construction activity.
- **Day-night average noise level (L_{dn}):** The L_{dn} is the average hourly A-weighted L_{eq} for a 24-hour period with a 10 dB penalty added to sound levels occurring during evening hours (7:00 p.m. to 10:00 p.m.) to account for individuals' increased sensitivity to noise levels during nighttime hours.
- **Community Noise Equivalent Level (CNEL):** CNEL is another average A-weighted L_{eq} sound level measured over a 24-hour period; however, this noise scale is adjusted to account for some individuals' increased sensitivity to noise levels during the evening and nighttime hours. A CNEL noise measurement is obtained after adding 5 dB to sound levels occurring

during evening hours (7:00 p.m. to 10:00 p.m.) and 10 dB to noise levels occurring during nighttime hours (10:00 p.m. to 7:00 a.m.).

Vibrational Terminology

According to the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (FTA 2018), construction activities can be a source of ground-borne vibration. Activities such as pile driving and operation of heavy equipment may cause ground-borne vibration while constructing the proposed project. Vibration is an oscillatory motion which can be described in terms of displacement, velocity, or acceleration (FTA 2018). Two descriptors are frequently used when discussing quantification of vibration, the peak particle velocity (PPV) and the root mean square (rms):

- **PPV:** The maximum instantaneous positive or negative peak of the vibration signal (FTA 2018)
- **rms:** The square root of the average of the squared amplitude of the vibration signal, typically calculated over a 1-second period (FTA 2018)

The Caltrans construction vibration guidance is used in this assessment (Caltrans 2013). This guidance includes a human response equivalent based on the PPV instead of using root mean square.

3.11.3 Existing Conditions

Sensitive Land Uses

Land uses sensitive to high noise levels include single and multi-family residences, schools, churches, hotels, motels, and parks. The proposed project is located within a residential area near a wildlife refuge. The nearest off-site sensitive land uses to the proposed project site are the residential communities located to the east, south, and west of the project site (see Figure 2-2 in Chapter 2, Project Description). These sensitive land uses are located within 50 to 100 feet of the project boundary. The remaining land uses in the project area consist of commercial developments.

Overview of Existing Noise Environment

The primary existing noise sources in the project area are transportation facilities. Traffic along Palm Avenue and I-5 is the dominant source contributing to area ambient noise levels. Noise from motor vehicles is generated by engine vibrations, the interaction between the tires and the road, and the exhaust system. FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used to evaluate highway traffic-related noise conditions along the roadway segments in the project vicinity. Existing traffic volumes included in the traffic study prepared for the project (Appendix N2) were used to assess the existing traffic noise levels. A typical vehicle ratio for Southern California was used in the model. These noise levels represent the worst-case scenario, which assumes that no shielding is provided between traffic and the location where the noise contours are drawn. Table 3.11-1 summarizes the existing traffic volumes within the project area.

Table 3.11-1. Existing Traffic Volumes

Roadway Segment	Average Daily Traffic	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane
<i>Palm Avenue</i>					
Between Florida Street and 13th Street	34,228	103	324	1025	70.7
Between 13th Street and 16th Street	39,249	118	372	1175	71.3
Between 16th Street and Saturn Boulevard	42,922	129	406	1285	71.7
Between Saturn Blvd and I-5 southbound off-ramp	63,032	189	597	1887	73.4
Between I-5 southbound off ramp and I-5 northbound on-ramp	23,516	53	166	525	68.5
Between I-5 northbound on-ramp and Hollister Street	20,672	<50	146	462	67.9
<i>13th Avenue</i>					
North of Palm Avenue	3,910	<50	<50	<50	58.4
<i>Saturn Boulevard</i>					
North of Palm Avenue	22,430	<50	79	250	66.0

Source: Appendix M of this EIR

Notes:

CNEL=community noise equivalent level; dBA=A-weighted decibels; I=Interstate

3.11.4 Applicable Laws, Regulations, and Policies

Federal

Occupational Safety and Health Administration

The Occupational Health and Safety Administration (OSHA) established standards for occupational noise exposure under 29 CFR 1910.95. This standard establishes mandates to protect employees from excessive noise exposure and requires a Hearing Conservation Program when routine exposure to high noise levels would occur. The standard identifies permissible daily noise exposures and stipulates that personal protection against the effects of noise exposure must be provided if those levels are exceeded.



United States Environmental Protection Agency

Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA 550/9-74-004) was published in 1974 and identifies safe levels of environmental noise exposure and is intended to “provide State and Local governments as well as the Federal Government and the private sector with an informational point of departure for the purpose of decision making” (U.S. EPA 1974). While the U.S. EPA has no regulation governing environmental noise, the agency has conducted several extensive studies to identify the effects of noise level on public health and welfare. In residential areas, U.S. EPA recommends an outdoor L_{dn} limit of 55 dBA and an indoor L_{dn} limit of 45 dBA (Table 3.11-2). In nonresidential areas, where limited amounts of time are spent, the U.S. EPA recommends a 24-hour L_{eq} limit of 55 dBA (both indoors and outdoors). These levels are identified as desirable to protect against speech interference and sleep disturbance for residential, educational, and healthcare areas. In commercial and industrial areas, U.S. EPA recommends a 24-hour L_{eq} limit of 70 dBA (both outdoors and indoors) to protect the population against hearing damage.

This publication is considered an authoritative study on protective noise levels based on its large sampling of community reaction to noise. The U.S. EPA noise level guidelines do not provide an absolute measure of noise impact, but rather a reasonable estimate of potential activity interference, human health and welfare effects, and annoyance. Since these protective levels were derived without concern for technical or economic feasibility, and contain a margin of safety to ensure their protective value, they should not be viewed as standards, criteria, regulations, or goals. Rather, they should be viewed as levels below which there is no reason to suspect that the general population would be at risk from any of the identified effects of noise. The U.S. EPA guideline limits are summarized in Table 3.11-2.

Table 3.11-2. Summary of United States Environmental Protection Agency Cause and Effect Noise Levels

Location	Level	Effect
All public accessible areas with prolonged exposure	70 dBA $L_{eq(24)}$	Safety
Outdoor at residential structure and other noise sensitive receptors where a large amount of time is spent	55 dBA L_{dn}	Protection against annoyance and activity interference
Outdoor areas where limited amounts of time are spent (e.g., park areas, school yards, golf courses, etc.)	55 dBA $L_{eq(24)}$	
Indoor residential	45 dBA L_{dn}	
Indoor non-residential	55 dBA $L_{eq(24)}$	

Source: U.S. EPA 1974

Notes:

dBA=A-weighted decibel; L_{eq} =equivalent sound level; L_{dn} =day-night average noise level

State

California Department of Health Services

In 1987, the California Department of Health Services published guidelines for the noise element of local general plans (OPR 2017). These guidelines include a noise level/land use compatibility chart that categorizes various outdoor L_{dn} ranges into four compatibility categories (normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable), depending on land use. For many land uses, the chart shows exterior L_{dn} ranges for two or more compatibility categories. The noise element guidelines chart identifies the normally acceptable range for low-density residential uses as less than 60 dBA, while the conditionally acceptable range is 60-70 dBA. The normally acceptable range for high-density residential uses is identified as L_{dn} values below 65 dBA, while the conditionally acceptable range is identified as 65-70 dBA. For educational and medical facilities, L_{dn} values below 60 dB are considered normally acceptable, while L_{dn} values of 60-70 dBA are considered conditionally acceptable. For office and commercial land uses, L_{dn} values below 67.5 dBA are considered normally acceptable, while L_{dn} values of 67.5-77.5 dBA are categorized as conditionally acceptable.

These normally and conditionally acceptable L_{dn} ranges are intended to indicate that local conditions (existing noise levels and community attitudes toward dominant noise sources) should be considered in evaluating land use compatibility at specific locations. These guidelines are used by many agencies, environmental planners, and acoustical specialists as a starting point to evaluate the potential for noise impact on and by a project. The guidelines are also employed to evaluate methods for achieving noise compatibility with respect to nearby existing uses. Table 3.11-3 summarizes these guidelines for the normally and conditionally acceptable L_{dn} exposures.

Table 3.11-3. California Department of Health Services Noise Guidelines

Land Use Category	Community Noise Exposure (L_{dn} or CNEL, dBA)	
	Normally Acceptable	Conditionally Acceptable
Residential – low density	50 – 60	60 – 70
Residential – high density	50 – 65	65 – 70
Transient lodging – motels, hotels	50 – 65	65 – 70
Schools, libraries, churches, hospitals, nursing homes	50 – 60	60 - 65
Auditoriums, concert halls, amphitheaters	—	50 – 70
Sports arenas, outdoor spectator sports	—	50 – 75
Playgrounds, neighborhood parks	50 – 67.5	—
Golf courses, riding stables, water recreation, cemeteries	50 – 70	—
Office buildings, business commercial and professional	50 – 67.5	67.5 – 77.5



Table 3.11-3. California Department of Health Services Noise Guidelines

Land Use Category	Community Noise Exposure (L _{dn} or CNEL, dBA)	
	Normally Acceptable	Conditionally Acceptable
Industrial, manufacturing, utilities, agriculture	50 – 70	70 – 80

Source: OPR 2017

Notes:

dBA=A-weighted decibel; CNEL=Community Noise Equivalent Level; L_{dn}=day-night average noise level

California Division of Occupational Health and Safety

The California Division of Occupational Safety and Health (Cal/OSHA) administers industrial safety regulations in California, including occupational noise standards. Cal/OSHA regulations establish a time-weighted noise exposure limit of 90 dBA averaged over 8 hours (CCR, Title 8, Group 15, Article 105, Sections 5095-5100). Noise source controls, administrative procedures, or worker hearing protection must be provided if worker noise exposure would exceed the 90 dBA limit.

Local

While the District is not required to apply the City of Imperial Beach or the City of San Diego’s thresholds, sensitive land uses that may be impacted by the project are located in the City of Imperial Beach and City of San Diego. Therefore, local city regulations are included below.

Port of San Diego Port Master Plan

The proposed project is within the jurisdiction of the District. The PMP is the governing land use document for physical development within the District. The PMP includes noise-related policies described below. Section II, Planning Goals, contains the following goal:

- **Goal VII.** 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 Imperial Beach General Plan Noise Element

The City of Imperial Beach General Plan Noise Element requires that all habitable rooms, including hotel/motel rooms, must meet an interior noise level of 45 dBA CNEL. A 65 dBA CNEL exterior noise exposure generally allows the criteria standard to be met as long as windows can normally be closed to shut out the noise.

City of Imperial Beach Municipal Code

Section 9.32.020 of the city's Municipal Code includes the following noise limits on construction activities:

The use of any tools, power machinery or equipment so as to cause noises disturbing to the comfort and repose of any person residing or working in the vicinity, or in excess of seventy-five decibels, between the hours of ten p.m. and seven a.m., except when the same is necessary for emergency repairs required for the health and safety of any member of the community

City of San Diego General Plan Noise Element

The City of San Diego General Plan Noise Element requires future noise-sensitive land uses should have a sufficient spatial separation or incorporate site design and construction techniques to ensure compatibility with noise-generating uses (City of San Diego 2015). The City of San Diego uses the Land Use Compatibility Guidelines, shown on Figure 3.11-2, when reviewing proposed land use development projects to determine compatibility of various land uses with different noise exposures, defined using the CNEL.



Figure 3.11-2. 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 ^a	
<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 to 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: City of San Diego 2015

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City of San Diego Municipal Code

NOISE ORDINANCE 59.5.0401

The City of San Diego municipal code provides guidelines on the allowed noise level limits for varying land uses and shown below in Table 3.11-4. The planning of future noise-sensitive land uses should have a sufficient spatial separation or incorporate site design and construction techniques to ensure compatibility with noise-generating uses. For areas that have varying allowed land uses, the arithmetic mean of the two districts is considered the maximum (City of San Diego 2010).

Table 3.11-4. Municipal Code Noise Limits

Land Use	Time of Day	One-Hour Average Sound Level (dBA L _{eq})
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 1/2000)	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 10 p.m.	60
	10 p.m. to 7 a.m.	60
Industrial or Agricultural	anytime	75

Source: City of San Diego 2010

Notes:

dBA=A-weighted decibels; L_{eq}=equivalent sound level

CONSTRUCTION NOISE 59.5.0404

The City of San Diego also maintains restrictions on noise limits for construction that occurs within the city. Construction can be another major, although typically short-term, source of noise. Construction is of most concern when it takes place near noise-sensitive land uses, occurs at night, or in early morning hours. Noise from construction can also affect nearby wildlife by interfering with the ability to establish territory, vocalize, or successfully reproduce. Construction is limited to 7:00 a.m. to 7:00 p.m. and restricts noise levels to less than an average of 75 dB beyond the property line limits of any property zoned residential (City of San Diego 2010).

City of San Diego CEQA Significance Determination Thresholds

The City of San Diego developed the *CEQA Significance Determination Thresholds* (City of San Diego 2016) to evaluate potential noise impacts resulting from construction and operations of development projects in the city. While the District is not required to apply the City of San Diego’s thresholds, sensitive land uses that may be impacted by the project are located in the City of San Diego.

TRAFFIC NOISE IMPACTS

The City of San Diego’s traffic noise significance thresholds are provided in Table 3.11-5.

Table 3.11-5. Traffic Noise Significance Thresholds (dBA CNEL)

Structure or Proposed Use that would be Impacted by Traffic Noise	Interior Space	Exterior Useable Space ^a	General Indication of Potential Significance
Single-family detached	45	65	Structure or outdoor useable area ^b is < 50 feet from the center of the closest (outside) lane on a street with existing or future average daily traffic > 7500
Multi-family, schools, libraries, hospitals, daycare, hotels, motels, parks, convalescent homes	DSD ensures 45 dBA pursuant to Title 24	65	
Offices, churches, business, professional uses	—	70	Structure or outdoor usable area is < 50 feet from the center of the closest lane on a street with existing or future average daily traffic > 20,000
Commercial, retail, industrial, outdoor spectator sports uses	—	75	Structure or outdoor usable area is < 50 feet from the center of the closest lane on a street with existing or future average daily traffic > 40,000

Source: City of San Diego 2016

Notes:

^a 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.

^b 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.

CNEL=community noise equivalent level; dBA=A-weighted decibel; DSD=Development Services Department

NOISE FROM ADJACENT STATIONARY USES (NOISE GENERATORS)

A project which would generate noise levels at the property line that exceed the city’s Noise Ordinance Standards is considered potentially significant (e.g., a carwash, projects operating generators, noisy equipment).

If a nonresidential use, such as a commercial, industrial, or school use, is proposed to abut an existing residential use, the dB level at the property line should be the arithmetic mean of the dB levels allowed for each use as set forth in Section 59.5.0401 of the Municipal Code. The City of San Diego’s Municipal Code noise limits are listed above in Table 3.11-4.



TEMPORARY CONSTRUCTION NOISE

Construction noise levels measured at or beyond the property lines of any property zoned residential shall not exceed an average sound level greater than 75 dBA during the 12-hour period from 7:00 a.m. to 7:00 p.m. In addition, construction activity is prohibited between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington’s Birthday, or on Sundays, unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator, in conformance with San Diego Municipal Code Section 59.5.0404. Additionally, where temporary construction noise would substantially interfere with normal business communication, or affect sensitive receptors, such as day care facilities, a significant noise impact may be identified.

NOISE/LAND USE COMPATIBILITY

Noise is one factor to be considered in determining whether a land use is compatible. Land use compatibility noise factors are presented in Table 3.11-6. 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 3.11-6. City of San Diego Noise Land Use Compatibility Chart

Land Use		Annual Community Noise Equivalent Level (dB)					
		50	55	60	65	70	75
1	Outdoor amphitheaters	X	X	—	—	—	—
2	Schools, libraries	X	X	X	—	—	—
3	Nature preserves, wildlife preserves	X	X	X	—	—	—
4	Residential single-family, multi-family, mobile homes, transient housing	X	X	X	—	—	—
5	Retirement homes, intermediate care facilities, convalescent homes	X	X	X	—	—	—
6	Hospitals	X	X	X	—	—	—
7	Parks, playgrounds	X	X	X	—	—	—
8	Office buildings, business and professional	X	X	X	—	—	—
9	Auditoriums, concert halls, indoor arenas, churches	X	X	X	X	—	—
10	Riding stables, water recreation facilities	X	X	X	X	—	—
11	Outdoor spectator sports, golf courses	X	X	X	X	X	—
12	Livestock farming, animal breeding	X	X	X	X	X	—
13	Commercial-retail, shopping centers, restaurants, movie theaters	X	X	X	X	X	—

Table 3.11-6. City of San Diego Noise Land Use Compatibility Chart

Land Use		Annual Community Noise Equivalent Level (dB)					
		50	55	60	65	70	75
14	Commercial-wholesale, industrial manufacturing, utilities	X	X	X	X	X	—
15	Agriculture (except livestock), extractive industry, farming	X	X	X	X	X	—
16	Cemeteries	X	X	X	X	X	—

Source: City of San Diego 2016

Notes:

Compatible land uses are marked with an X while incompatible land uses are marked with a dash.

dB=decibels; CNEL=Community Noise Equivalent Level

3.11.5 Environmental Impacts

This section presents the methodology applied for the evaluation, the significance criteria used for considering project impacts related to noise and vibration, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level component includes a PMPA to incorporate Parcels A, B, and C into the PMP, which requires that a land use designation be assigned. The parcels would be assigned a commercial recreation land use designation. At this time, no construction or operational activities is proposed on Parcels A, B, and C. The impact analysis below evaluates a reasonable scenario of commercial development on Parcels A, B, and C. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to a CDP and project approval, and any additional CEQA compliance.

Methodology

Noise

Noise is defined as unwanted or excessive sound. Sound becomes unwanted when it interferes with normal activities, such as sleep, work, speech, or recreation. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. Noise levels from highway traffic are affected by three factors: the volume of the traffic, the speed of the traffic, and the number of trucks in the flow of traffic. Generally, traffic noise increases commensurate with these three factors.

Noise is measured in dB on a logarithmic scale. Human hearing is not equally sensitive to all frequencies of sound; therefore, certain frequencies of sound are given more “weight.” This process is known as weighting and the human response is represented by A-weighting. All noise levels referred to in this report are stated as hourly L_{eq} in terms of dBA. The L_{eq} is defined as the time energy averaged (in this case, hourly) noise level. Ambient noise level changes of 3 dBA are considered to be at the threshold of perceptible change for most adults with normal hearing, as shown in Table 3.11-7. Construction noise levels were predicted using the FHWA *Roadway Construction Noise Model* (FHWA 2006).



Table 3.11-7. Logarithmic Nature of Sound

Change in $L_{eq}(1h)$ Sound Level	Perceived Loudness in the Natural Environment
+/- 3 dBA	Barely perceptible change
+/- 5 dBA	Readily perceptible change
+/- 10 dBA	Considered twice or half as loud

Notes:

dbA=A-weighted decibels; L_{eq} =equivalent sound level

Vibration

The City of San Diego does not have adopted limits for determining significance of vibration impacts to structures or persons. Caltrans and FTA have developed two of the decisive works in the assessment of vibrations from transportation and construction sources. The District has determined the Caltrans *Construction Induced Vibration Guidance Manual* and FTA *Transit Noise and Vibration Impact Assessment Manual* to be appropriate significance thresholds to analyze project impacts (Caltrans 2013; FTA 2018).

The Caltrans vibration limits are reflective of standard practice for analyzing vibration impacts to structures from continuous and intermittent sources. Caltrans identifies two impact criteria for buildings and humans. Table 3.11-8 describes impact criteria for buildings and Table 3.11-9 describes impact criteria for humans.

Table 3.11-8. California Department of Transportation Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (inches/second)	
	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

Notes:

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.

PPV=peak particle velocity

Table 3.11-9. California Department of Transportation Guideline Vibration Annoyance Potential

Human Response	Maximum PPV (inches/second)	
	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

Notes:

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.

PPV=peak particle velocity

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to noise and vibration are considered significant if any of the following occur:

- a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- b) Generation of excessive ground-borne vibration or ground-borne noise levels
- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels

As discussed in Section 3.11.4, the District has not adopted its own specific thresholds of impact for potential noise and vibration impacts, and therefore, where appropriate, utilizes the applicable standards and guidelines of other agencies such as the City of San Diego.

Impact Analysis

Threshold (a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Project Level – Wetland Mitigation Bank

CONSTRUCTION

Construction noise, although temporary, can potentially affect nearby sensitive receptors, such as residences. Construction of the wetland mitigation bank would require the use of heavy equipment that may be periodically audible at off-site locations. Construction would be restricted to the Bank Parcel and staging on Parcels B and C. Received noise levels would fluctuate, depending on the construction activity, equipment type, and distance between noise source and receiver. Additionally, noise from construction equipment would vary dependent on the construction phase and the number and type of equipment at a location at any given time. There would be five phases of construction for the proposed project that would use heavy equipment:

1. Mobilization and grubbing
2. Mass grading
3. Fine grading
4. Landscaping
5. Breech excavation/opening

The variation in power and usage of the various equipment types creates complexity in characterizing construction noise levels. Expected equipment types for each phase of construction are presented in Table 3.11-10 and were used to screen for potential construction noise impacts. Each phase identified would require different types of construction equipment. The estimated composite site noise level is based on the assumption that all equipment would operate at a given usage load factor, for a given hour (i.e., front-end loaders are assumed to be used for up to 40 percent of 1 hour or 24 minutes), to calculate the composite average daytime hourly L_{eq} . The load factor accounts for the fraction of time that the equipment is in use over the specified time period; the default for which are built into the FHWA Roadway Construction Noise Model. The composite noise level from several pieces of equipment operating during the same phase is obtained from dB addition of the L_{eq} of each individual unit. Although it is not possible for all the construction equipment to operate at one point simultaneously, the screening level analysis represented in Table 3.11-10 conservatively assumes concurrent operation of equipment.

The nearest sensitive receptors to the project site are the residences located immediately south of the Bank Parcel. The City of Imperial Beach does not have any specific construction noise threshold and the City of San Diego's construction noise threshold is averaged over a 12 hour period. Construction activity would not operate exclusively along the boundary of the site. Rather, stationary construction activity would occur at various locations on the project site, and mobile-construction equipment would operate throughout the site, which is approximately 80 acres. Given the Bank Parcel's significant size, construction would occur within 250 feet of residential receptors for only a limited period of time and only as necessary to complete project construction. While sensitive residential receptors are located at the southern boundary of the Bank Parcel, the majority of the site on which construction would occur is located beyond 250 feet from those receptors, which by virtue of distance alone would substantially reduce construction noise at the receptors. Therefore, the average distance, not the closest distance, is used in this analysis. The average distance from the construction activities to these sensitive land uses is approximately 250 feet. Construction noise would attenuate with increased distance from the noise sources. Composite L_{eq} noise levels at 250 feet, given in Table 3.11-10, were evaluated assuming spherical free-field spreading. As shown in the table, the noise levels would not exceed the

City of San Diego’s 75 dBA L_{eq} construction noise threshold. Therefore, impacts from construction noise would be less than significant.

Table 3.11-10. Wetland Mitigation Bank Construction Noise Levels by Phase

Phase	Equipment ^a			Composite Sound Level (L_{eq}) ^c	
	Type	Quantity	L_{max} at 50 feet ^b	50 feet	250 feet
Mobilization and grubbing	Dozers	3	81.7	84.3	70.3
	Backhoes	4	77.6		
Mass grading	Excavators	2	80.7	88.5	74.5
	Graders	2	85.0		
	Dozers	3	81.7		
	Scrapers	1	83.6		
	Backhoes	4	77.6		
Fine grading	Excavators	2	80.7	88.5	74.5
	Graders	2	85.0		
	Dozers	3	81.7		
	Scrapers	1	83.6		
	Backhoes	4	77.6		
Landscaping	Excavators	2	80.7	84.5	70.5
	Dozers	2	81.7		
	Backhoes	3	77.6		
Breach excavation	Excavators	2	80.7	84.1	70.1
	Dozers	2	81.7		
	Backhoes	2	77.6		

Notes:

a Equipment mix obtained from the California Emissions Estimator Model emission calculations prepared for the Air Quality and Greenhouse Gas Study (Appendix D).

b Measured L_{max} at given reference distance obtained from the FHWA Roadway Construction Noise Model (FHWA 2006).

c Distance factors determined by the inverse square law defined as 6 dBA per doubling of distance as sound travels away from an idealized point.

L_{eq} =equivalent sound level; L_{max} =maximum sound level

Traffic associated with construction of the wetland mitigation bank is not anticipated to be a significant source of noise. As discussed in Section 3.11.2, a 3 dBA increase is a doubling of acoustic pressure level. Therefore, for traffic noise to increase by 3 dBA, the traffic volume must also double. The project construction is anticipated to require up to 40 truck trips and 72 worker trips per day. If all of the construction vehicles were to use a single access road, the construction activities would contribute up to 53 dBA CNEL at a distance of 50 feet. When added to the existing traffic conditions listed in Table 3.11-1, the increase in construction related traffic noise would be less than 3 dBA. In addition, as there is currently no traffic on Boundary Avenue, the construction traffic noise level would be 53 dBA CNEL at a distance of 50 feet. This noise level is less than the 65 dBA CNEL recommended for exterior noise at residential properties. Therefore, the noise from construction traffic would be less than significant.

OPERATION

Once all performance standards have been met, the wetland mitigation bank is anticipated to be self-sustaining; however, because of the urban surroundings, long-term management may be needed for maintenance of:

- Invasive species monitoring and removal;
- Trash removal;
- Maintenance of site control measures (e.g., fencing); or
- Restoration of any damage from human or maintenance activities or natural phenomenon.

As described in Chapter 2, Project Description, very minimal maintenance would be required for operation of the facility amounting to one employee related trip monthly for 5 years and then once annually in the long term. Therefore, the maintenance activities would have a negligible impact on the long-term noise levels in the project area. Impacts from operation of the wetland mitigation bank would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. This impact analysis evaluates a reasonable scenario for Parcels A, B, and C, which is a future commercial land use and relies on the reasonable development assumptions identified in Section 2, Project Description.

CONSTRUCTION

Construction noise, although temporary, can potentially affect nearby sensitive receptors, such as residences. Construction of the future commercial developments would require the use of heavy equipment that may be periodically audible at off-site locations. Received noise levels would fluctuate, depending on the construction activity, equipment type, and distance between noise source and receiver. Additionally, noise from construction equipment would vary dependent on the construction phase and the number and type of equipment at a location at any given time. The potential impacts were estimated using 105,000 square feet of commercial development across three parcels. There would be five phases of construction that would use heavy equipment:

1. Site preparation

2. Grading
3. Building construction
4. Architectural coating
5. Paving

The variation in power and usage of the various equipment types creates complexity in characterizing construction noise levels. Expected equipment types for each phase of construction are presented in Table 3.11-11 and were used to screen for potential construction noise impacts. Each phase identified would require different types of construction equipment. Pile driving, which would generate the greatest maximum noise level, may not be required; however, pile driving was included for a conservative analysis. The estimated composite site noise level is based on the assumption that all equipment would operate at a given usage load factor for a given hour (e.g., front end loaders are assumed to be used for up to 40 percent of 1 hour or 24-minutes) to calculate the composite average daytime hourly L_{eq} . The load factor accounts for the fraction of time that the equipment is in use over the specified time period; the default for which are built into the FHWA Roadway Construction Noise Model. The composite noise level from several pieces of equipment operating during the same phase is obtained from a dB addition of the L_{eq} of each individual unit. Although it is not possible for all the construction equipment to operate at one point simultaneously, the screening level analysis represented in Table 3.11-11 conservatively assumes concurrent operation of equipment.

The nearest sensitive receptors to the project site are the residences located immediately adjacent to Parcels A, B, and C. The City of Imperial Beach does not have any specific construction noise thresholds, and the City of San Diego's construction noise threshold is averaged over a 12-hour period. Therefore, the average distance, not the closest distance, is used in this analysis. The average distance from the construction activities to a sensitive receptor near these sites is assumed to be approximately 100 feet based upon the size of the parcels, the mix of construction equipment, and the fact that construction operations are generally not singularly located in a specific area for a long period of time. Construction noise would attenuate with increased distance from the noise sources. Composite L_{eq} noise levels at 100 feet, shown in Table 3.11-11, were evaluated assuming spherical free-field spreading. As shown in Table 3.11-11, the noise levels would exceed the City of San Diego's 75 dBA L_{eq} construction noise threshold for sensitive residential receptors located within 100 feet of the noise source. This would be a significant impact. Implementation of MM NOI-1 would require equipment generating the noise be acoustically shielded with temporary noise barriers which would reduce impacts. The type of temporary noise barriers would be evaluated on a case-by-case basis by considering the distance to noise-sensitive receptors. However, even with pile driving shielding, noise would be reduced by 5 to 6 dBA to a maximum noise level of 83 dBA L_{eq} for some construction phases. As this noise level would continue to exceed the City of San Diego's 75 dBA L_{eq} construction noise threshold, the impact would remain significant.

It should nevertheless be noted that, as with the wetland mitigation bank site, construction of Parcels A, B, and C would occur across the entirety of those parcels, and construction equipment would be located beyond 100 feet from residential receptors for a significant portion of the construction phase. Moreover, construction would comply with the City of San Diego's noise ordinance, which limits construction activities from 7:00 a.m. to 7:00 p.m. daily. These hours generally do not coincide with residential uses sensitive noise activities, such as sleeping, and the urban environment is noisier during the allowable construction hours.



Table 3.11-11. Future Commercial Development Construction Noise Levels by Phase

Phase	Equipment ^a			Composite Sound Level (L _{eq}) ^c	
	Type	Quantity	L _{max} at 50 feet ^b	50 feet	100 feet
Clearing and grubbing	Dozers	3	81.7	84.3	78.3
	Backhoes	4	77.6		
Grading	Excavators	2	80.7	87.1	81.1
	Graders	1	85.0		
	Dozers	1	81.7		
	Scrapers	2	83.6		
	Backhoes	2	77.6		
Building construction	Cranes	1	80.6	94.6	88.5
	Forklifts	3	74.7		
	Generators	1	80.6		
	Backhoes	3	77.6		
	Welders	1	73.0		
	Pile Driver	1	101.3		
Paving	Pavers	2	77.2	81.6	75.6
	Paving equipment	2	77.2		
	Rollers	2	80.0		
Architectural coating	Air compressors	1	77.7	73.7	67.7

Notes:

a Equipment mix obtained from the California Emissions Estimator Model emission calculations prepared for the Air Quality and Greenhouse Gas Study (Appendix D).

b Measured L_{max} at given reference distance obtained from the FHWA Roadway Construction Noise Model (FHWA 2006).

c Distance factors determined by the inverse square law defined as 6 dBA per doubling of distance as sound travels away from an idealized point.

L_{eq}=equivalent sound level; L_{max}=maximum sound level

As discussed in Section 3.11.2, a 3 dBA increase is a doubling of acoustic pressure level. Therefore, for traffic noise to increase by 3 dBA, the traffic volume must also double. Based on the modeling that was conducted for the *Air Quality and Greenhouse Gas Study* (HDR 2020), construction is anticipated

to require up to 34 truck trips and 68 worker trips per day and would not overlap with the construction of the wetland mitigation bank. If all of the construction vehicles were to use a single access road, the construction activities would contribute up to 53 dBA CNEL at a distance of 50 feet. When added to the existing traffic conditions listed in Table 3.11-1, the increase in construction related traffic noise would be less than 3 dBA. In addition, as there is currently no traffic on Boundary Avenue, the construction traffic noise level would be 53 dBA CNEL at a distance of 50 feet. This noise level is less than 65 dBA CNEL recommended for exterior noise at residential properties. Therefore, the noise from construction traffic would be less than significant.

OPERATION

Traffic Noise Impacts

Long-term vehicular trip increases from future commercial development are anticipated to be minimal when distributed to adjacent street segments. A 3 dBA increase or decrease is a doubling (or halving) of sound pressure level, and it corresponds to the threshold of change in loudness perceptible in a laboratory environment. In practice, the average person is not able to distinguish less than a 3 dBA difference in environmental sound outdoors. Therefore, an increase of 3 dBA or more is considered to be a significant off-site traffic noise impact requiring mitigation.

Table 3.11-12 provides the existing traffic noise level associated with the future commercial development conditions on the roadways in the project area. The volumes on Boundary Avenue are based on the projected traffic increase along Saturn Boulevard. As shown in Table 3.11-12, the program-related traffic noise level increase would be 1 dBA or less for all analyzed roadway segments. Therefore, no significant off-site traffic noise impacts would occur under existing year conditions.

Table 3.11-12. Existing with Program Level Traffic Volumes

Roadway Segment	ADT	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Project Related Increase CNEL (dBA)
<i>Palm Avenue</i>						
Between Florida Street and 13th Street	34,942	105	331	1,046	70.8	0.1
Between 13th Street and 16th Street	41,179	123	390	1,233	71.5	0.2
Between 16th Street and Saturn Boulevard	44,852	134	425	1,343	71.9	0.2
Between Saturn Blvd and I-5 southbound off-ramp	66,126	198	626	1,980	73.6	0.2
Between I-5 southbound off ramp and I-5 northbound on-ramp	24,706	55	175	552	68.7	0.2



Table 3.11-12. Existing with Program Level Traffic Volumes

Roadway Segment	ADT	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Project Related Increase CNEL (dBA)
Between I-5 northbound on-ramp and Hollister Street	21,862	<50	155	488	68.2	0.2
13th Avenue						
North of Palm Avenue	4,890	<50	<50	54	59.4	1.0
Saturn Boulevard						
North of Palm Avenue	25,390	<50	89	282	67.5	0.5
Boundary Avenue						
West of Saturn Boulevard	2,960	<50	<50	<50	57.2	N/A

Notes:

ADT=average daily trips; CNEL=community noise equivalent level; dBA=A-weighted decibels; I=Interstate

Additionally, future commercial development on-site land uses and buildings would be designed to meet the city’s interior and exterior noise standards, listed in Table 3.11-5. Therefore, no additional mitigation measures would be required.

Stationary Noise Impacts

On-site stationary noise could include building heating, ventilation, and air conditioning systems; parking lot usage, including door closing/slamming, horn honking, and car alarms; and on-site truck movements. Heating, ventilation, and air conditioning systems typically result in noise levels that average between 50 and 60 dBA L_{max} at 50 feet from the equipment. Parking lots typically generate noise levels of up to 70 dBA L_{max} at 50 feet. Truck movements typically generate noise levels of up to 75 dBA L_{max} at 50 feet. Any proposed future commercial developments would be designed to comply with Noise Ordinance 59.5.0401 of the City of San Diego’s Municipal Code, which requires that all stationary noise sources meet specific daytime and nighttime noise levels to ensure no significant noise impacts would occur on the adjacent residential developments.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM NOI-1 **Employ Noise Reducing Measures During Construction.** Construction of the future commercial development on Parcels A, B, and/or C shall be required to comply with the following measures:

- a) Construction activity is prohibited between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, that would create disturbing, excessive, or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator, in conformance with San Diego Municipal Code Section 59.5.0404. No noise variance permit would be sought and construction would adhere to the times identified above.
- b) The contractor shall equip all internal combustion engines with the manufacturer-recommended muffler and shall not operate any internal combustion engine on the job site without the appropriate muffler.
- c) The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.
- d) When construction activities are projected to exceed 75 dBA L_{eq} during the 12-hour period from 7:00 a.m. to 7:00 p.m., equipment generating the noise shall be acoustically shielded with temporary noise barriers or pile driving shielding. The need for and feasibility of temporary noise barriers would be evaluated on a case-by-case basis by considering the distance to noise-sensitive receptors, available space at the construction location, safety, and proposed project operations.

Significance after Mitigation

Construction of the wetland mitigation bank would be completed prior to construction of future commercial development. Therefore, construction activities within one of the areas would not combine with noise generated within the other. There are no long-term operational noise sources within or associated with the wetland mitigation bank that would combine with noise generated within future commercial development.

Construction and operation of the project-level wetland mitigation bank would not result in any significant noise impact. Likewise, implementation of future commercial development on Parcels A, B, and C, which assumes reasonable commercial development, would not result in significant operational noise impacts. However, construction of future commercial development on Parcels A, B, and C would result in significant short-term noise that would exceed the City of San Diego's 75 dBA L_{eq} threshold. MM NOI-1 would require (1) compliance with the City of San Diego's construction noise hours limitations (MM NOI-1(a)), (2) that all construction equipment be equipped with manufacturer-recommended mufflers (MM NOI-1(b)), (3) a detailed construction plan for scheduling impactful construction activities to minimize disturbances (MM NOI-1(c)), and (4) that sensitive receptors be acoustically shielded from construction activities with temporary noise barriers placed around the equipment generating the noise. The measures to be implemented pursuant to MM NOI-1(a)-(c) would be implemented to reduce noise impacts on adjacent receptors, but their effect



cannot be quantified. Therefore, no noise reduction is assumed as a result of their implementation. The noise barriers required by MM NOI-1(d) would reduce noise. However, these noise barriers would only reduce by 5-6 dBA and some construction phases would exceed the City of San Diego’s 75 dBA L_{eq} with mitigation. Impacts from the proposed project remain significant and unavoidable.

Threshold (b) Generation of excessive groundborne vibration or groundborne noise levels.

Project Level – Wetland Mitigation Bank

CONSTRUCTION

Construction activities generate ground-borne vibration when heavy equipment travels over unpaved surfaces or when it is engaged in soil movement. The impacts of ground-borne vibration include discernable movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. Vibration-related problems generally occur due to resonances in the structural components of a building because structures amplify ground-borne vibration.

Table 3.11-13 lists the vibration source amplitudes for construction equipment. As pile driving is not required, the highest reference PPV for the proposed project would be 0.089 inch per second, associated with on-site dozers.

Table 3.11-13. Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 feet (inches/second)	Approximate L_v^a at 25 feet (velocity in dB)
Pile driver (impact) – upper range	1.518	112
Pile driver (impact) – typical	0.644	104
Pile drive (sonic) – upper range	0.734	105
Pile drive (sonic) – typical	0.170	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill (slurry wall) – in soil	0.008	66
Hydromill (slurry wall) – in rock	0.017	75
Vibratory roller	0.210	94
Hoe ram	0.089	87
Large bulldozer	0.089	87
Caisson drilling	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79

Table 3.11-13. Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 feet (inches/second)	Approximate Lv ^a at 25 feet (velocity in dB)
Small bulldozer	0.003	58

Source: FTA 2018: Table 7-4

Notes:

^a rms velocity in dB re 1 micro-inch/second

dB=decibel; PPV=peak particle velocity; rms=root mean square

The residential structures to the south of the project site would be located approximately 50 feet from project construction areas that would require the use of large bulldozers. Unlike the noise threshold discussed under Threshold (a), which are based on an average 12-hour work day, vibration thresholds are based on a single event.

The FTA vibration guidance provides the following equation to calculate PPV at sensitive receptors:

$$PPV_{\text{equipment}} = PPV_{\text{Ref}} (25/D)^n \text{ (in/sec)}$$

Where:

PPV_{Ref} = reference PPV at 25 feet

D = distance from equipment to the receiver in feet

n = 1.5 is a value related to the vibration attenuation rate through ground

Distance attenuation would reduce the construction vibration levels from the creation of the wetland mitigation bank to 0.03 inch/second. This level is much lower than the 0.3 inch/second threshold listed in Table 3.11-8 for older residential structures. In addition, this level is below the distinctly perceptible level of 0.04 inch/second for vibration annoyance.

Construction activity is prohibited between the hours of 7:00 p.m. and 7:00 a.m.; on legal holidays, as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington’s Birthday; or on Sundays. Construction Activity during these times would create disturbing, excessive, or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator, in conformance with San Diego Municipal Code Section 59.5.0404. Compliance with the City of San Diego’s Noise Ordinance would ensure that construction vibration impacts are reduced to the greatest extent feasible and limited to daytime hours. The construction vibration impacts from the wetland mitigation bank would be less than significant.

OPERATION

Once all performance standards have been met, the wetland mitigation bank is anticipated to be self-sustaining. Monthly maintenance would be required for operation of the facility during the initial 5 years of establishment, and after the 5 year mitigation is complete, trips would be completed annually. Therefore, once construction has been completed, the wetland mitigation bank would not result in vibration emissions. Impacts would be less than significant.



Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. This impact analysis evaluates a reasonable development scenario for Parcels A, B, and C, which is a future commercial land use and relied on the reasonable development assumptions identified in Section 2, Project Description.

CONSTRUCTION

As with the proposed mitigation bank, the construction activities would occur within 50 feet of the off-site sensitive land uses. Table 3.11-13 lists the vibration source amplitudes for construction equipment. As pile driving may be required, the highest reference PPV for the proposed project would be 0.644 inch per second.

The FTA vibration guidance provides the following equation to calculate PPV at sensitive receptors:

$$PPV_{\text{equipment}} = PPV_{\text{Ref}} (25/D)^n \text{ (in/sec)}$$

Where:

PPV_{Ref} = reference PPV at 25 feet

D = distance from equipment to the receiver in feet

n = 1.5 is a value related to the vibration attenuation rate through ground

Distance attenuation would reduce the construction vibration levels from pile driving to 0.23 inch/second. This level is lower than the 0.3 inch/second threshold listed in Table 3.11-8 for older residential structures. However, this level is above the distinctly perceptible level of 0.04 inch/second for vibration annoyance. While pile driving would only occur for a few days during the duration of construction, if pile driving occurs within 50 feet of the off-site sensitive land uses, then impacts would be significant. Implementation of MM NOI-1 would require compliance with the City of San Diego’s Noise Ordinance that would ensure construction vibration impacts are reduced to the greatest extent feasible and limited to daytime hours. However, this would not reduce impacts below the distinctly perceptible level, and impacts would remain significant.

OPERATION

The PMP allows for the following uses under the commercial recreation land use designation: hotels, restaurants, convention center, recreational vehicle parks, specialty shopping, pleasure craft marinas, water-dependent educational and recreational program facilities and activities, dock and dine facilities, and sportfishing. These allowable land uses are not considered sources of vibration emissions. Therefore, once construction has been completed, the future commercial development would not result in vibration emissions. Impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM NOI-1 Employ Noise Reducing Measures During Construction.

Significance after Mitigation

Construction of the wetland mitigation bank would be completed prior to construction of future commercial development. Therefore, ground-borne noise and vibration construction activities from one component would not combine with ground-borne noise and vibration generated from the other. There are no long-term operational noise sources within the wetland mitigation bank that would contribute to any vibration generated from the future commercial development.

Construction and operation of the project-level wetland mitigation bank would not result in any significant vibration impacts. Likewise, implementation future commercial development on Parcels A, B, and C, which assumes reasonable commercial development, would not result in significant operational vibration impacts. However, implementation of MM NOI-1 would be required for construction of future commercial development. Implementation of MM NOI-1 would require compliance with the City of San Diego’s construction noise hours limitations.

Implementation of MM NOI-1 would reduce impacts from construction related vibration as a result of the proposed project; however, impacts from the proposed project remain significant and unavoidable.

Threshold (c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use, would the project expose people residing or working in the project area to excessive noise levels?

Project Level – Wetland Mitigation Bank

The project site is over 10 miles from the San Diego International Airport; however, the project site is located within 2 miles of the Naval Outlying Landing Field. The project site is not located within the 65 dBA CNEL noise contour of the San Diego International Airport or the Naval Outlying Landing Field. Therefore, the project would not expose people residing or working in the project area to excessive noise levels, and no impact would occur.

Program Level – Parcels A, B, and C Port Master Plan Amendment

As discussed under wetland mitigation bank above, the project site is not located within the 65 dBA CNEL noise contour of the San Diego International Airport or the Naval Outlying Landing Field. Therefore, the project would not expose people residing or working in the project area to excessive noise levels and no impact would occur.



Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

No airstrip or airport-related noise impact would occur with the implementation of the proposed project.

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3.12 Public Services

3.12.1 Overview

This section describes the existing public service issues and applicable laws, regulations, and policies associated with public services, as well as an analysis of the potential effects resulting from implementation of the proposed project. The following provides a discussion of these services and facilities as they relate to the project.

3.12.2 Existing Conditions

The project site is located within District jurisdiction, but is served by public services administered by the City of San Diego, City of Imperial Beach, and San Diego Harbor Police Department.

Fire Protection

City of San Diego Fire-Rescue Department and City of Imperial Beach Fire Department

The project site is served by two SDFD stations: Station 30 at 2265 Coronado Avenue is located 1.15 mile southeast of the project site and Station 6 (693 Twining Avenue) approximately 3.4 miles east of the project site. SDFD provides fire, emergency medical, and emergency management services, including 9-1-1 services, fire inspections, permits, and public education for the jurisdiction. The City of Imperial Beach maintains only one station within its jurisdiction. The Imperial Beach Fire Department (IBFD) station is located at 865 Imperial Beach Boulevard and is approximately 0.91 mile southwest of the project site. There is an automatic aid agreement between the City of Imperial Beach and the City of San Diego to provide aid for calls in the surrounding area (City of Imperial Beach 2015).

Port of San Diego Harbor Police Department

On-water fires in the project vicinity are responded to by the Port of San Diego Harbor Police Department (Harbor Police). The nearest Harbor Police facility is located at 950 Marina Way in Chula Vista. The Harbor Police's fire services are composed of a Marine Firefighting Department and Vessel Patrol. The Harbor Police's marine firefighter officers are cross-trained as both land- and marine-based firefighters. The patrol boats serve as firefighting boats that respond to fire emergencies on the bay. Each boat includes a water cannon capable of shooting a stream of water several hundred feet, and patrol boats can handle small electrical fires to large vessel fires. Harbor Police vessels may respond to waterfront land emergencies if necessary and accessible.

Police Protection

Port of San Diego Harbor Police Department

In addition to marine firefighting, the Harbor Police also enforce California state laws within District jurisdiction and handle the majority of landside calls for service the waterfront across all five cities that border the Port of San Diego. The Harbor Police includes vehicle patrols, bicycle patrols, a traffic collision team, and a mobile communication command van. The nearest Harbor Police facility is located at 950 Marina Way in Chula Vista.

San Diego Police Department

The San Diego Police Department acts as a secondary responder for police protection services within District tidelands. Police protection services for the project site are provided by the Southern Division of the San Diego Police Department.

The Southern Division is currently staffed with 70 sworn personnel. The current patrol strength at the Southern Division is 56 uniformed patrol officers. Officers work 10-hour shifts. Staffing is comprised of three shifts which operate from 6:00 a.m. – 4:00 p.m. (First Watch), 2:00 p.m. – Midnight (Second Watch) and from 9:00 p.m. – 7:00 a.m. (Third Watch). Using the department's minimum staffing guidelines, the Southern Division currently deploys a minimum of 9 patrol officers on First Watch, 11 patrol officers on Second Watch, and 7 patrol officers on Third Watch.

The San Diego Police Department does not staff individual stations based on ratios of sworn officers per 1,000 population ratio. The goal citywide is to maintain a ratio of 1.48 officers per 1,000 population.

According to the City of San Diego's General Plan, the San Diego Police Department's response time goals are 7 minutes for emergency (imminent threat to life) calls, 12 minutes for Priority 1 (serious crimes in progress) calls, 30 minutes for Priority 2 (less serious crimes with no threat to life) calls, 90 minutes for Priority 3 (minor crimes/not urgent) calls, and 90 minutes for Priority 4 calls (minor police service requests).

The project site is currently located within the boundaries of police beats 721, 722, and 724. The 2016 average response times for Beat 721 are 7.1 minutes for emergency calls, 13.8 minutes for priority one calls, 40.5 minutes for priority two calls, 91.6 minutes for priority three calls, and 248.7 minutes for priority four calls. The 2016 average response times for Beat 722 are 6.3 minutes for emergency calls, 14.1 minutes for priority one calls, 35.0 minutes for priority two calls, 95.3 minutes for priority three calls, and 195.8 minutes for priority four calls. The 2016 average response times for Beat 724 are 5.6 minutes for emergency calls, 13.0 minutes for priority one calls, 38.5 minutes for priority two calls, 95.4 minutes for priority three calls, and 227.0 minutes for priority four calls (see comment letter from the City of San Diego in Appendix A).

Schools

South Bay Union School District

Six schools are located within 1 mile of the project site within the cities of San Diego and Imperial Beach. None of the identified schools are located within 0.25 mile of the project site.

- Bayside Elementary School, 490 Emory Street (0.39 mile west)
- Central Elementary School, 1290 Ebony Avenue (0.40 mile south)
- Mendoza Elementary School, 2050 Coronado Avenue (0.65 mile southeast)
- Mar Vista Academy, 1267 Thermal Avenue (0.70 mile south)
- Emory Elementary School, 1915 Coronado Avenue (0.75 mile south)
- Oneonta Elementary School, 1311 10th Street (0.85 mile southwest)



Parks

There are six parks located within 1 mile of the project site, including parks within City of Imperial Beach and City of San Diego:

- Otay Valley Regional Park is directly adjacent to the project site
- Rose Teeple Memorial Park (0.43 mile west)
- South Bay Park (0.61 mile south)
- Bayside Park (0.71 mile west)
- South Bay Community Park (0.9 mile south)
- Veterans Park (0.93 mile southwest)

Other Public Facilities

Libraries

The San Diego County Library is located 0.94 mile southwest of the project site at 810 Imperial Beach Boulevard. The library is open Monday through Saturday and is open during the following hours: Monday and Thursday 9:30 a.m. – 6:00 p.m., Tuesday and Wednesday 9:30 a.m. – 8:00 p.m., and Friday and Saturday 9:30 a.m. – 5:00 p.m.

3.12.3 Applicable Laws, Regulations, and Policies

State

California Fire Code

Section 503 of the California Fire Code requires fire apparatus access roads be provided and maintained in accordance with Section 503.1.1 through 503.1.3. These sections specify that an approved fire apparatus access road shall be provided for every facility or building.

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 the tidelands and submerged lands granted to the District and 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 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 now 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.

Local

Port of San Diego Port Master Plan

The PMP guides the physical development of the lands within the District's jurisdiction and also serves as the District's coastal program for purposes of the CCA, described above. The District's jurisdiction generally includes the public trust lands (i.e., tidelands) bayward of the mean high-tide line and the submerged lands generally to the U.S. Pierhead Line, and other upland properties as acquired by the District. The District manages these lands in trust for the people of the State of California. Amendments to the PMP require a two-thirds vote by the BPC and certification by the CCC. The PMP prepared by the District and adopted by the BPC in 1980 was originally certified by the CCC in 1981 and last amended in 2018.

The certified PMP is the governing land use plan within the District's jurisdiction. Unlike typical city or county master plans or Local Coastal Programs that address uses and development on public and privately owned land, the PMP exclusively addresses uses and development on public lands. The PMP designates land and water uses and describes the allowed uses within each land and water use designation and is intended to guide future development and land and water use decisions within the



District's jurisdiction. It establishes planning goals and policies related to development and operation of the tidelands and describes land use types and objectives. Land and water uses described in the PMP include commercial, industrial, recreation, conservation, military, and public facilities.

The PMP divides the tidelands and submerged lands within the District's jurisdiction into 10 separate Planning Districts. Precise Plans guide future development within each of the 10 Planning Districts. The proposed project is not currently in the PMP and therefore is not currently included in any Planning District.

3.12.4 Environmental Impacts

This section presents the methodology applied for the evaluation, the significance criteria used for considering project impacts related to public services facilities, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level project component includes a PMPA to incorporate of Parcels A, B, and C into the PMP, which requires a land use designation be assigned. The parcels are proposed to be assigned a commercial recreation land use designation. At this time, no construction or operational activities are proposed on Parcels A, B, and C. The impact analysis below evaluates a reasonable scenario of commercial development on Parcels A, B, and C. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to a CDP and project approval, and any additional CEQA compliance.

Methodology

Study Area

The fire and police facilities that would serve the project site were identified by reviewing the local jurisdictions in the project vicinity. Schools, parks, and other facilities were identified through review of available mapping within 1 mile of the project site.

Methods

The proposed project's impacts on public services were evaluated by conducting an inventory of facilities located within the study area described above, comparing existing facilities and service capacity against the project's contribution to anticipated future demand increases, and determining which facilities are most likely to be impacted due to their distance to the project site. The analysis includes an evaluation of potential physical deterioration of existing facilities and the need for new facilities.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to public services are considered significant if the following occur:

- a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 any of the public services:
 - (i) Fire protection
 - (ii) Police protection
 - (iii) Schools
 - (iv) Parks
 - (v) Other public facilities

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (a.i.) would result in a less than significant impact for the project-level wetland mitigation bank creation, and Thresholds (a.ii.), (a.iii.), (a.iv.), and (a.v.) would result in a less than significant impact or no impact for the project-level wetland mitigation bank creation and program level PMPA., Therefore they are not included in the analysis below (see Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR).

Impact Analysis

Threshold (a.i.) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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.

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (a.i.) would result in a less than significant impact for the project-level wetland mitigation bank creation; therefore, is not analyzed below.

Program Level – Parcels A, B, and C Port Master Plan Amendment

Aside from use of Parcels B and C as construction staging areas for the project-level component, no construction or operational activities are proposed on Parcels A, B, or C at this time; however, a land use designation of commercial recreation would allow future commercial development of these parcels, subject to project-level review by the District. Fire protection services for the project site are provided by the SDFD and IBFD. There are three fire stations within 3.5 miles of the project site, and there is an automatic aid agreement between the City of Imperial Beach and the City of San Diego to provide aid for calls in the surrounding area (City of Imperial Beach 2015).



Any commercial development of these parcels would be constructed in compliance with California Fire Code Section 503 by providing fire apparatus access roads. Access roads would need to have an unobstructed width of 20 feet and vertical clearance of 13 feet 6 inches, and where required, approved signs and notices would be posted including the words “NO PARKING – FIRE LANE.” If fire gates are installed, compliance with Section 503 would be maintained.

Commercial development of all three parcels could reasonably result in a total square footage of 105,000 square feet. The project site is within the service area of three fire stations serviced by SDFD and IBFD. As stated above, there is an automatic aid agreement between the City of Imperial Beach and the City of San Diego to provide aid for calls in the surrounding area. The three fire stations are:

- SDFD Station 30 (2265 Coronado Avenue) is located 1.15 mile southeast of the project site;
- SDFD Station 6 (693 Twining Avenue) is located 3.4 miles east of the project site; and
- IBFD station (865 Imperial Beach Boulevard) is located 0.91 mile southwest of the project site.

The City of San Diego has a best practice goal of 7:30 minutes/seconds from fire dispatch receipt to first unit on the scene (response time). On average, the City of San Diego is meeting its goals for response times. Station 30 has a response time of 07:38, and Station 6 has a response time of 07:57 minutes/seconds (Citygate Associates, LLC 2017).

Under the proposed project, commercial recreation would allow future commercial development, which would be an increase in operations in terms of the need for fire protection services because Parcels A, B, and C are currently vacant. SDFD Station 30's district is 9.76 square miles (City of San Diego 2020a) and SDFD Station 6's district is 4.89 square miles (City of San Diego 2020b). The project would represent 0.04 percent of SDFD Station 30's service area and 0.07 percent of SDFD Station 6's service area.

In 2017 a Standards of Response Cover was conducted for the City of San Diego (Citygate Associates, LLC 2017). The report considered planned growth in the area and identified areas around the city that have a gap in service or where a new fire station is recommended. The project site is located in an area that was identified as adequately served.

The proposed project would not likely place an unanticipated burden on fire protection services and would therefore not affect response times or service ratios such that new or expanded fire facilities would be needed. The proposed project would not require new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, and would not create unacceptable service ratios, response times, or other performance objectives for fire protection. Therefore, impacts would be less than significant.

Mitigation Measure(s)

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts associated with the program-level component would be less than significant. In addition, as indicated in Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR, impacts associated with the project-level component would be less than significant. Therefore, impacts for the overall project would be less than significant.

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3.13 Transportation

3.13.1 Overview

This section describes the existing transportation conditions and applicable laws, regulations, and policies associated with transportation, as well as an analysis of the potential effects resulting from implementation of the proposed project. Information contained in this section is summarized from the Transportation Impact Study prepared by Chen Ryan Associates dated August 2020 (Appendix N1).

3.13.2 Existing Conditions

Study Area

Access to the proposed project from the regional transportation network would be provided via I-5, Palm Avenue, Saturn Boulevard, and 13th Street. These roadways would either provide a direct connection to the proposed project, via project driveways, or would provide a critical link between the proposed project and the regional transportation network.

Existing Transportation Conditions

Palm Avenue – Palm Avenue is an east-west facility immediately south of the project site and provides access to the Parcel B. Adjacent to the project site, Palm Avenue is primarily a six-lane major arterial with a raised median but narrows to a four-lane arterial at the I-5 overpass. Palm Avenue west of I-5 is also SR 75. West of the project site, Palm Avenue is fronted by single family residences. East of 13th Street, Palm Avenue provides access to small shopping centers, as well as the major shopping center on the northwest corner of the I-5 interchange. Posted speed limit near the project area is 45 miles per hour. Within the study area, parking is generally prohibited on both sides of the roadway, with the exception of the segment between 16th Street and Saturn Boulevard, which allows parking on the north side of the roadway.

Saturn Boulevard – Saturn Boulevard is a north-south facility east of the project site and provides access to Parcel C. Saturn Boulevard is a divided four-lane roadway between Palm Avenue and Southland Plaza Driveway and transitions to a two-lane undivided roadway north of the Southland Plaza Driveway to the northern terminus. There are no posted speed limits on Saturn Boulevard between the northern terminus and Palm Avenue; however, divided four-lane roadways with fronting commercial typically have speed limits of 30 miles per hour. Parking is not permitted on either side of Saturn Boulevard between Palm Avenue and the northern terminus.

13th Street – 13th Street is a north-south facility west of the project site and provides access to Parcel A. North of Palm Avenue, 13th Street is an undivided two-lane roadway. The posted speed limit is 30 miles per hour along 13th Street. Parking is permitted on both sides of the roadway.

I-5 – is a north-south freeway that traverses the U.S. from the Mexican to the Canadian border through the states of California, Oregon, and Washington. Within California, I-5 connects the major metropolitan areas of San Diego, Los Angeles, Sacramento, and the eastern portion of the San Francisco Bay Area. I-5 bisects the study community and can be accessed via the Palm Avenue interchange.

Public Transportation Services

The San Diego Trolley is a light rail passenger service that consists of four lines. The Palm Avenue Trolley Station is located at the intersection of Palm Avenue and Hollister Street approximately 1 mile east from the project site. The trolley station serves as a stop for the Blue Line Trolley. The Blue Line currently extends 15.4 miles and includes 18 stations from San Ysidro Port-of-Entry to the south and the Old Town Transit Center to the north. Construction is currently underway to extend the Blue Line north to the University City community, with service anticipated to begin in 2021.

The Palm Avenue Trolley Station also serves bus routes 933 and 934 that operate along the Palm Avenue corridor. Table 3.13-1 shows the bus stops along the study corridor.

Table 3.13-1. Bus Stops in the Project Vicinity

Bus Route 933 – Westbound	Bus Route 934 – Eastbound
Palm Avenue and 12th Street	Palm Avenue and 12th Street
Palm Avenue and 13th Street	Palm Avenue and 13th Street
Palm Avenue and 16th Street	Palm Avenue and 16th Street
Palm Avenue and Thermal Avenue	Palm Avenue and Thermal Avenue
Palm Avenue and 18th Street	Palm Avenue and Saturn Boulevard
Palm Avenue and Saturn Boulevard	—

Pedestrian and Bicycle Facilities

Palm Avenue - Pedestrian facilities are located throughout the study area with exception of the segment between Saturn Boulevard and I-5 Northbound Ramps in the eastbound direction. Class II bicycle facilities are also present along Palm Avenue within the study area.

Saturn Avenue - Sidewalks are present on both sides of Saturn Boulevard north of Palm Avenue, and bicycle lanes are provided intermittently throughout the segment.

13th Street - North of Palm Avenue 13th Street is classified as a bicycle route according to the City of Imperial Beach Bicycle Transportation Plan (City of Imperial Beach 2008) and SANDAG’s San Diego Regional Bicycle Plan (SANDAG 2010); however, no signage or sharrows are present. Sidewalks are present on both sides of 13th Street north of Palm Avenue.

Bayshore Bikeway – The Bayshore Bikeway is a planned 24-mile long Class I Bike Path that traverses around San Diego Bay and includes a ferry connection from Coronado and Downtown San Diego (SANDAG 2006). Approximately 17.5 miles of bike paths have been built to date and are operational. The bike route on 13th Street connects to the Bayshore Bikeway, which is north of the project site (see Figure 2-2 in Chapter 2, Project Description).



3.13.3 Applicable Laws, Regulations, and Policies

State

California Department of Transportation

Caltrans is the primary state agency responsible for transportation issues. One of its duties is the construction and maintenance of the state highway system. Caltrans has established standards for street traffic flow and has developed procedures to determine if intersections require improvements. For projects that may physically affect facilities under its administration, Caltrans requires encroachment permits before any construction work may be undertaken. For projects that would not physically affect facilities, but may influence traffic flow and levels of services (LOS) at such facilities, these potential impacts to Caltrans facilities would need to be analyzed in accordance with Caltrans.

Senate Bill 743

On September 27, 2013, Governor Edmund G. Brown, Jr. signed SB 743 into law, starting a process that is expected to fundamentally change the way transportation impact analysis is conducted under CEQA. Within the state's CEQA Guidelines, these changes include elimination of auto delay, LOS, and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts.

On December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package, which included the California Natural Resources Agency Guidelines for the Implementation of CEQA. As a result, the California Governor's OPR updated and released the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory) in December 2018. According to the updated guidelines, lead agencies will have until July 1, 2020 to comply with the updated CEQA revision.

Regional

San Diego Association of Governments – Regional Transportation Plan

The SANDAG the regional transportation planning agency in San Diego County. As such, they are responsible for planning and funding transportation projects throughout the region. SANDAG has completed its 2050 Regional Transportation Plan. The Regional Transportation Plan was adopted on October 28, 2011. The Regional Transportation Plan identified a potential future project that would add two managed lanes (high occupancy vehicle and value pricing) to I-5 from I-905 to Palomar Street by 2050.

Local

The project site is within the jurisdiction of the District; however, because the streets and intersections serving the project site are within the City of San Diego or City of Imperial Beach's jurisdiction, the following local laws, regulations, and plans were considered in the analysis of the proposed project's impacts on transportation.

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 provides guidelines to the city that 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.

City of San Diego Municipal Code

The City of San Diego Municipal Code Chapter 12 Land Development Reviews, Article 9 Construction Permits, Division 7 Public Right-of-Way (ROW) Permits contains regulations for construction permits and outlines the procedures for obtaining a ROW permit. Sections include when a public ROW permit is required and how to apply for a public ROW permit.

City of Imperial Beach General Plan

The Circulation Element of the City of Imperial Beach General Plan identifies goals and policies for balanced circulation within the city that is dependent upon a safe and efficiently operating circulation system that provides for pedestrians, bicycles, trucks, automobiles, and public transportation. The following policies are applicable to the project:

- C-2. Street Design and Access.** Street design and access shall include the following principles:
- b. Driveway widths shall be kept narrow in order to retain a pedestrian street scale. Minimum and maximum curb cut widths shall be as set forth in Table 3.13-2. When redevelopment or rehabilitation occurs, existing driveways shall be modified or eliminated to conform to these standards.



Table 3.13-2. Minimum and Maximum Two-Way Traffic Curb Cuts Widths

Number of Parking Spaces Accessed by Driveway	Minimum Width (feet)	Maximum Width (feet)
2-8	12	16
9-14	16	18
15+	18	24 ^a

Source: City of Imperial Beach 2015: Table C-3

Notes:

^a May be increased to 30 feet for large commercial shopping complexes.

C-19. Bicycle Facilities Encouraged. Bikeways shall be encouraged within the city and adjoining jurisdictions as a complement to Imperial Beach’s small town residential character and recreation emphasis, as an effective alternative to automobile travel, to maximize the impact on air quality and energy conservation and for the convenience of residents and visitors.

C-21. Pedestrian Circulation. Sidewalks shall be required for all new developments. Normally the sidewalk shall be located so that a landscape strip for trees and vegetation is located between the sidewalk and the vehicle travel way. The city should discourage the use of sidewalks for use a bicycle route or bicycling facility.

City of Imperial Beach Municipal Code

The City of Imperial Beach Municipal Code Title 12 Streets, Sidewalks, and Public Places, contains regulations for construction and installation of streets and sidewalks. Sections include when a public ROW permit is required, how to apply for a public ROW permit, and provisions on curb, gutters, and sidewalk materials and widths.

City of Imperial Beach Bicycle Transportation Plan

The Bicycle Transportation Plan identifies the existing conditions within the City of Imperial Beach and determines the needs and feasibility of proposed projects from the city’s General Plan. The plan includes policies from the city’s General Plan, including policy C-19 described above.

Riding to 2050 San Diego Regional Bike Plan

SANDAG’s San Diego Regional Bike Plan supports implementation of regional plans that call for more transportation options and a balanced regional transportation system to support smart growth and a more sustainable region. The plan includes goals to significantly increase levels of bicycling throughout the San Diego region, improve bicycling safety, and encourage the development of complete streets.

Palm Avenue Revitalization Plan

The Palm Avenue Revitalization Plan seeks to improve economic development and vehicle, transit, pedestrian and bicycle mobility along Palm Avenue between 13th Street and Hollister Street. The plan guides future urban design, streetscape, and mobility improvements along Palm Avenue by identifying goals to improve accessibility along Palm Avenue for all modes and user abilities.

3.13.4 Environmental Impacts

This section presents the methodology applied for the evaluation, the significance criteria used for considering project impacts related to transportation, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level component includes a PMPA to incorporate Parcels A, B, and C into the PMP, which requires a land use designation be assigned. The parcels are proposed to be assigned a commercial recreation land use designation. At this time, no construction or operational activities are proposed on Parcels A, B, and C. The impact analysis below evaluates a reasonable scenario of commercial development on Parcels A, B, and C. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to a CDP and project approval, and any additional CEQA compliance.

Methodology

Trip Generation

The project-level wetland mitigation bank would result in minimal new traffic or trips generated because the wetland mitigation bank would not be accessible to the public; therefore, the trip generation and methodology described below are for the program-level future commercial development. The trip generation estimates for the project were developed using trip generation rates outlines in the SANDAG Not so Brief Guide to Vehicular Traffic Generation Rates (SANDAG 2002). Table 3.13-3 shows daily, as well as AM and PM peak hour, trip generations for future commercial development. As shown in Table 3.13-3, future commercial development of Parcels A, B, and C would generate a total of up to 4,200 daily trips.



Table 3.13-3. Program-Level Trip Generation

Parcel	Land Use	Units (square feet)	Trip Rate	ADT	Percent	Trips	AM Split	In	Out	Percent	Trips	PM Split	In	Out
Parcel A	Specialty Retail / Commercial	25,000	40/KSF	1,000	3	30	(6:4)	18	12	9	90	(5:5)	45	45
Parcel B	Specialty Retail / Commercial	5,000	40/KSF	200	3	6	(6:4)	4	2	9	18	(5:5)	9	9
Parcel C	Specialty Retail / Commercial	75,000	40/KSF	3,000	3	90	(6:4)	54	36	9	270	(5:5)	135	135
Total		105,000	—	4,200	—	126	—	76	50	—	378	—	189	189

Source: Appendix N1 of this EIR

Notes:

ADT=average daily traffic

Analysis Methodology

The following section describes the analysis methods outlined in the *OPR Technical Advisory on Evaluating Transportation Impacts in CEQA* which transportation related impacts are analyzed and identified (OPR 2018). The following methodology was identified as the most applicable for a program-level analysis.

ANALYSIS METRICS

For land use development projects, OPR requires that the following two metrics be analyzed to determine if a project has a significant transportation related impact:

- *VMT/Capita*: Includes all vehicle-based person trips grouped and summed to the home location of individuals who are drivers or passengers on each trip. It includes both home-based and non-home-based trips. The VMT for each home is then summed for all homes in a particular census tract and divided by the population of that census tract to arrive at Resident VMT/Capita.
- *VMT/Employee*: Includes all vehicle-based person trips grouped and summed to the work location of individuals on the trip. This includes all trips, not just work-related trips. The VMT for each work location is then summed for all work locations in a particular census tract and then divided by the total number of employees of that census tract to arrive at the VMT/Employee.

ANALYSIS TOOL

The *OPR Technical Advisory* explains that a tour-based travel demand model could be used to estimate a project's VMT. The SANDAG Series 13 Activity Based Model (ABM), which was calibrated and customized for the District and the Imperial Beach study area, is a travel demand forecasting model that incorporates census data and travel surveys to inform the algorithms of the model's projections. It uses a simulated population based on existing and projected demographics to match residents to employment and forecasts the daily travel on the regional transportation network. In addition, the model can track the daily travel of individuals in the simulated population, including origins, destinations, travel distances, and mode choices. The Series 13 ABM has four forecast scenarios: 2012, 2020, 2035, and 2050.

To calculate the proposed project's VMT, the average trip length of the future commercial development land use type was multiplied by the trip generation.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to transportation and traffic are considered significant if any of the following occur:

- a) Conflict with plan, ordinance or policy addressing the circulation system, including transit roadway, bicycle and pedestrian facilities
- b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)
- c) Substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- d) Result in inadequate emergency access



As discussed in the IS and Environmental Checklist (Appendix A), Threshold (c) and (d) would result in no impact for the project-level wetland mitigation bank creation, and therefore, are not included in the analysis below (see Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR).

Supplemental Thresholds

As discussed in Section 3.13.3, SB 743 eliminates auto delay, LOS, and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts. The CEQA Guidelines recommends the use of automobile VMT to evaluate vehicle-related transportation impacts. For land use projects, the *OPR Technical Advisory* reports that research has shown that automobile VMT/Capita at the project level should be 15 percent below those of existing development. This section presents the transportation significance criteria that are based on the thresholds identified in the *OPR Technical Advisory*.

Section 15064.3 (4) of the CEQA Guidelines state:

A lead agency has discretion to choose the most appropriate methodology to evaluate a project’s vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project’s vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

To follow this standard, Section E.2 of the *OPR Technical Advisory on Evaluating Transportation Impacts in CEQA* (pages 16 and 17) recommends using Total VMT for land use development projects that have a customer component.

Table 3.13-4 categorizes each component of the proposed project and with the appropriate evaluation criteria and impact threshold.

Table 3.13-4. Proposed Project’s Land Use Impact Threshold

Proposed Project’s Land Use Component	Land Use	Evaluation Criteria	Impact Threshold
Wetland Mitigation Bank	Mitigation Bank	—	—
Parcels A, B, and C PMPA	Retail (SF)	VMT with vs. without proposed retail change	No increase in regional VMT

Notes:

The wetland mitigation bank would not be accessible to the public and is therefore not anticipated to generate any additional VMT. While there would be some trips related to maintenance, those trips would be negligible and would not contribute to regional VMT in a measurable way. Therefore, no impact threshold is appropriate.

PMPA=Port Master Plan Amendment; VMT=vehicle miles traveled

Impact Analysis

Threshold (a) *Conflict with program, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.*

Although the City of San Diego Traffic Impact Study Manual (City of San Diego 1998) identifies the acceptable LOS standard for roadways and intersections in San Diego as LOS D, a LOS analysis is not included in this EIR because potential LOS impacts are no longer considered a significant impact under CEQA, pursuant to SB 743 and PRC Section 21099. Instead transportation impacts are determined based on VMT analysis [refer to Threshold (b)].

In the project study area, the only transit facilities are two bus routes that operate along Palm Avenue, one eastbound and one westbound (Table 3.13-1). Pedestrian facilities are located along Palm Avenue, Saturn Boulevard, and 13th Street in the project study area. Class II bicycle facilities are located along Palm Avenue and 13th Street is classified as a bicycle route. Saturn Boulevard has an intermittent bicycle lane north of Palm Avenue.

Project Level – Wetland Mitigation Bank

Construction of the wetland mitigation bank would not require any road closures, detours, or closure of pedestrian or bicycle facilities. Staging areas would be contained on site, on Parcels B and C, where large construction equipment and vehicles would be parked and stored. During the clearing and grubbing phase of construction, approximately 40 haul truck trips would enter and exit the site every day for 2 months. During the mass grading phase, approximately 80 haul truck trips would be utilized every day for 6 months. Fine grading would require approximately 10 to 15 haul truck trips per day for 2 – 3 weeks. Haul trucks would be double trailers and would enter the roadway from one of the staging areas (Palm Avenue from Parcel B or Boundary Avenue from Parcel C). A permit from Caltrans to operate or move a vehicle, or combination of vehicles or special-mobile equipment, of a size or weight of vehicle or load exceeding the maximum limitations specified in the California Vehicle Code would be required for the haul route if haul trucks would utilize Caltrans facilities. Caltrans also requires a Traffic Control Plan be submitted to Caltrans District 11, including the interchanges at I-5 and Palm Avenue, at least 30 days prior to the start of any construction.

Once the wetland mitigation bank is operational, very minimal maintenance is required. Monthly maintenance would be required for operation of the facility during the initial 5 years of establishment, and after the 5-year monitoring is complete, monitoring trips would only be completed annually.

Construction activities would not conflict with a program, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, or pedestrian facilities because the construction of the wetland mitigation bank would be temporary, entirely within District jurisdiction.. Impacts would be less than significant for the wetland mitigation bank.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels, subject to future project-level review by the District. This impact analysis evaluates a reasonable development scenario for Parcels A, B, and C, which is a future commercial land use and relies on the reasonable development assumptions identified in Chapter 2, Project Description.



CONSTRUCTION

As described above, pedestrian facilities are located along 13th Street, Palm Avenue, and Saturn Boulevard. Class II bicycle facilities are located along Palm Avenue, and Saturn Boulevard has an intermittent bicycle lane north of Palm Avenue. 13th Street is classified as a bike route and provides access to the Bayshore Bikeway.

Since no construction is proposed at this time, the extent of the construction activities that would be implemented are unknown. This includes the type and number of construction equipment needed, the exact location of staging areas, or whether any partial closure of roads, pedestrian, or bicycle facilities would be needed. If any road or lane closures are needed, the future commercial development project applicant would need to apply for a Caltrans encroachment permit for any work within the Caltrans ROW (Palm Avenue). A permit from Caltrans to operate or move a vehicle, or combination of vehicles or special-mobile equipment, of a size or weight of vehicle or load exceeding the maximum limitations specified in the California Vehicle Code would be required for the haul route if haul trucks would utilize Caltrans facilities. Caltrans also requires a Traffic Control Plan be submitted to Caltrans District 11, including the interchanges at I-5 and Palm Avenue, at least 30 days prior to the start of any construction. Additionally, if construction activities occur within a City of San Diego public ROW, a public ROW permit would be required by the City of San Diego Municipal Code Section 129.0702. Future commercial development on Parcel A would require permits from the City of Imperial Beach for modifications to the sidewalk, curb, or gutters. These permits would be reviewed by the issuing entity for compliance and require consideration or potential closures/encroachments and specific measures to ensure such projects do not impact roadways/ROWs. Therefore, impacts would be less than significant for the construction of future commercial development.

OPERATION

While the type of future development on Parcels A, B, and C have not been identified, the PMP allows for the following uses under the commercial recreation land use designation: hotels, restaurants, convention center, recreational vehicle parks, specialty shopping, pleasure craft marinas, water-dependent educational and recreational program facilities and activities, dock and dine facilities, and sportfishing. Future commercial development on District-owned parcels would be limited to parcel footprints; however access to Parcels A, B, and C from non-District property would require modification to sidewalks or design of a new road within the jurisdiction of the City of Imperial Beach for Parcel A and the City of San Diego for Parcels B and C. The future commercial development project applicant would be required to comply with the applicable jurisdictions requirements for access to the parcels.

For Parcel A, 13th Street and the pedestrian and bicycle facilities adjacent to the parcel are within the jurisdiction of the City of Imperial Beach. According to the City of Imperial Beach's General Plan policy C-2, driveway widths must be kept narrow in order to retain a pedestrian street scale. The policy provides minimum and maximum two-way traffic curb cut widths.

Access to Parcel B would be from Palm Avenue, in the jurisdiction of the City of San Diego. The City of San Diego General Plan Mobility Element includes policies for safety and accessibility. Policy ME-A.5 requires consideration of pedestrian impacts when designing the width and number of driveways within a street segment.

Currently, there is no public access to Parcel C; public access to Parcel C is in the City of San Diego's jurisdiction. Boundary Avenue at the northern terminus of Saturn Boulevard is not open to through traffic and currently has a gate to prevent access. Public access, including design and construction of a road, would be required. The new road would be required to comply with City of San Diego General

Plan policies, including ME-C.6, which requires road alignments to respect the natural environment and scenic character of the area traversed, emphasize aesthetics and noise reduction, and place utility lines underground.

Operation of future commercial development on Parcels A, B, and C would generate new vehicle trips on the surrounding circulation system. The estimated trip generation rates for commercial development at Parcels A, B, and C would generate approximately 4,200 daily trips for all parcels combined. Operation-generated vehicle trips would increase existing traffic volumes of the surrounding circulation system.

Future commercial development operational activities on Parcels A, B, and C would be required to comply with applicable program, ordinance, or policies addressing the circulation system transit roadway, bicycle, or pedestrian facilities. It would require compliance with either the City of San Diego or City of Imperial Beach policies, programs, or ordinances discussed in Section 3.13.3, such as the City of San Diego Bicycle Master Plan, City of San Diego Pedestrian Master Plan, City of Imperial Beach Bicycle Transportation Plan, and the Riding to 2050 San Diego Regional Bike Plan. Impacts would be less than significant.

Future commercial development on Parcels A, B, and C would not conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, and would not otherwise substantially reduce the performance or safety of such facilities. Therefore, impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

Threshold (b) *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).*

Project Level – Wetland Mitigation Bank

The project site would be cleared, graded, and constructed over the course of approximately 17 months. Construction workers are anticipated to be drawn from the existing workforce in the surrounding area. As such, VMT is not calculated for construction workers under CEQA because the VMT is not newly generated; instead, it is redistributed throughout the regional roadway network based on the different work sites in which workers travel to each day.

Once operational, very minimal maintenance is required for operation of the wetland mitigation bank. Monthly maintenance would be required for operation of the facility during the initial 5 years of establishment, and after the 5-year monitoring is complete, monitoring trips would only be completed annually. The wetland mitigation bank would not be accessible to the public and is therefore not anticipated to generate any additional VMT other than the minimal employee related trips.



Therefore, the project would be consistent with CEQA Guidelines Section 15064.3, subdivision (b). Impacts would be less than significant for the wetland mitigation bank.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, the land use designation of “commercial recreation” would allow for commercial development of these parcels, subject to future project-level review by the District. This impact analysis evaluates a reasonable development scenario for Parcels A, B, and C, which is a future commercial land use and relies on the reasonable development assumptions identified in Chapter 2, Project Description.

CONSTRUCTION

Construction of future commercial development would occur in phases, which includes grading, building construction, architectural coating, and paving. Construction workers are anticipated to be drawn from the existing workforce in the surrounding area. As such, VMT is not calculated for construction workers under CEQA because the VMT is not newly generated; instead, it is redistributed throughout the regional roadway network based on the different work sites in which workers travel to each day. Therefore, construction of the future commercial development would be less than significant.

OPERATION

Operation of the future commercial development would generate VMT from the addition of new long-term employment opportunities and visitors. Table 3.13-5 shows the anticipated daily VMT generated, which was calculated by multiplying the anticipated daily trips generated by the average trip length for the future commercial development land uses. Both the trip generation rate and the average trip length were derived from the SANDAG *Not so Brief Guide to Vehicular Traffic Generation Rates* (SANDAG 2002).

Table 3.13-5. Vehicle Miles Traveled Analysis Results Impact Analysis

Land Use	Quantity	Trip Generation Rate	ADT	Average Trip Length (miles)	Daily VMT Generated
Specialty Retail/Strip Commercial	105,000 SF	40/KSF	4,200	4.3	18,060

Source: SANDAG 2002

Notes:

The wetland mitigation bank would not be accessible to the public and is therefore not anticipated to generate any additional VMT.

ADT=average daily traffic; KSF=thousand square feet; SF=square feet; VMT=vehicle miles traveled

No construction for commercial development is proposed on Parcels A, B, and C at this time, and the specific stores and/or uses that would be implemented on the project site are unknown. Therefore, to be conservative, the analysis assumed that the retail uses that would be implemented on the project site would not be locally serving¹, and therefore, daily VMT generated by these uses would be

¹ Locally serving retail is not assumed to have an impact on regional vehicle miles traveled (VMT) since it generally reduces trip lengths, as patrons would be drawn to the closest location.

18,060 miles. As shown in Table 3.13-5, a project would result in a significant impact if the project would result in an increase in regional VMT. Therefore, mitigation measures are required to reduce net VMT to zero.

To provide an understanding of the range and feasibility of mitigation measures needed to reduce VMT impacts, a Transportation Demand Management (TDM) analysis was conducted using the SANDAG Mobility Management VMT Reduction Calculator Tool. Table 3.13-6 summarizes the TDM measures analyzed and the feasibility of each measure. Appendix N1 details the results of the Mobility Management VMT Reduction Calculator Tool and the assumptions used.

Table 3.13-6. Transportation Demand Management Measure Feasibility and Potential Reduction

TDM Measure	Feasible to Implement	Potential Reduction
1A. Voluntary Employer Commute Program	Yes	See 1B
1B. Mandatory Employer Commute Program	Yes	2.6 percent
1C. Employer Carpool Program	Yes	Included as part of Strategy 1B
1D. Employer Transit Pass Subsidy	Yes	Included as part of Strategy 1B
1E. Employer Vanpool Program	Yes	Included as part of Strategy 1B
1F. Employer Telework Program	No	Does Not Apply
2A. Transit Oriented Development	No	Does Not Apply
2B. Mixed Use Development	No	Does Not Apply
3A. Parking Pricing	No	Does Not Apply
3B. Parking Cash Out	No	Does Not Apply
4A. Street Connectivity Improvement	No	Does Not Apply
4B. Pedestrian Facility Improvement	No	Does Not Apply
4C. Bikeway Network Expansion	Yes	0 percent ^a
4D. Bike Facility Improvement	No	Does Not Apply
4E. Bikesare	No	Does Not Apply
4F. Carshare	No	Does Not Apply
4G. Community-Based Travel Planning	No	Does Not Apply
5A. Transit Service Expansion	No	Does Not Apply
5B. Transit Frequency Improvements	No	Does Not Apply



Table 3.13-6. Transportation Demand Management Measure Feasibility and Potential Reduction

TDM Measure	Feasible to Implement	Potential Reduction
5C. Transit Supportive Treatments	No	Does Not Apply
5D. Transit Fare Reduction	No	Does Not Apply

Notes:

^a Due to the proximity to the existing regional network, Bayshore Bikeway, the proposed bikeway network expansion would not have a significant effect on project VMT.

TDM=Transportation Demand Management

As shown in Table 3.13-6, the following TDM measures included in the Mobility Management VMT Reduction Calculator Tool were identified to be feasible for the proposed project to implement:

- 1A. Voluntary Employer Commute Program
- 1B. Mandatory Employer Commute Program
- 1C. Employer Carpool Program
- 1D. Employer Transit Subsidy Pass
- 1E. Employer Vanpool Program
- 4C. Bikeway Network Expansion

MM TRAN-1 includes all feasible measures identified based on the results of the Mobility Management VMT Reduction Calculator Tool. MM TRAN-1 would be implemented to reduce future commercial development VMT by requiring a mandatory employer commute program, employer carpool program, employer transit pass subsidy, and employer vanpool program. However, the total VMT reduction that would be associated with these measures would be 2.6 percent, which is below the 100 percent reduction required to reduce impacts to a less than significant level. Therefore, impacts would remain significant and unavoidable.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM TRAN-1 Implement Transportation Demand Management Measures. To reduce VMT by operation of future commercial development, the following TDM reduction measures from the SANDAG Mobility Management VMT Reduction Calculator Tool shall be implemented by a future developer of Parcel A, B, or C.

- *1B Mandatory Employer Commute Program.* The District shall mandate future project applicants to implement a commute program as part of their lease. Employer offers a mandatory employer commute trip reduction program. The program may include a carpool or vanpool program, subsidized or discounted

transit passes, bike amenities, encouragement for telecommuting and alternative work schedules, commute trip reduction marketing, and preferential parking permit program.

- *1C Employer Carpool Program.* Employers can encourage carpooling by providing ridematching assistance to employees; providing priority parking for carshare vehicles; and providing incentives for carpooling. The District shall mandate future project applicants to implement a commute program as part of their lease.
- *1D Employer Transit Pass Subsidy.* Employers can encourage employees to take transit by subsidized or discounted daily or monthly public transit passes to employees.
- *1E Employer Vanpool Program.* Vanpooling is a flexible form of public transportation that provides groups of 5–15 people with a cost-effective and convenient rideshare option for commuting. An employer can encourage ridesharing by subsidizing vanpooling for employees that have a similar origin and destination and by providing priority parking for employees that vanpool. The SANDAG Vanpool Program provides a subsidy of up to \$400 per month to offset the vehicle lease cost.
- *4C Bike Facility Improvement.* A bikeway network includes an interconnected system of bike lanes, bike paths, and cycle tracks (Class I, Class II, and Class IV facilities). Bike facilities may share the roadway with vehicles or provide a dedicated pathway that separates bikes from cars or pedestrians. Increasing the network of bike facilities help to encourage biking as a safe and convenient alternative to driving.

Significance after Mitigation

Impacts associated with the wetland mitigation bank would be less than significant because no new sources of VMT would be generated. However, future commercial development of Parcels A, B, and C would generate VMT that exceeds the threshold for retail use (no regional increase in VMT). MM TRAN-1 would reduce VMT by 2.6 percent, which is well short of the 100 percent reduction of project related VMT that is required to reduce the identified impact to less than significant. Therefore, even with implementation of MM TRAN-1, impacts associated with the program-level component would remain significant and unavoidable. As such, as a whole, the proposed project would result in significant and unavoidable VMT-related impacts.

Substantially increase hazards due to a geometric design feature (e.g., Threshold (c) sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (c) would result in no impact for the project-level wetland mitigation bank creation; therefore, is not analyzed below.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. This impact analysis

evaluates a reasonable development scenario for Parcels A, B, and C, which is a future commercial land use and relies on the reasonable development assumptions identified in Chapter 2, Project Description.

Parcels A, B, and C are located within a developed, urban area of the City of San Diego and entirely within the District's jurisdiction. After the PMPA is certified, future uses would be consistent with the PMP, which allows for the following uses under the commercial recreation land use designation: hotels, restaurants, convention center, recreational vehicle parks, specialty shopping, pleasure craft marinas, water-dependent educational and recreational program facilities and activities, dock and dine facilities, and sportfishing. CBC and District standards for land use compatibility and design features that are in place would ensure standards are met to prevent hazards, such as sharp curves. Driveways would be required to be designed to avoid conflict with pedestrian and bicycle facilities and therefore minimize dangerous intersections, as discussed under Threshold (a) above. Any new driveway or roadway extensions within the jurisdiction of either the City of San Diego or City of Imperial Beach would require approval from those jurisdictions. These approval processes would ensure compliance with applicable standards, and that the proposed project would not result in hazardous design features (e.g., inadequate site distances) (San Diego Municipal Code Article 9). A new driveway would also require approval through the District's Tenant Project Plan Approval process, which establishes general practices for the processing of tenant sponsored development or improvement projects (San Diego Unified Port District 2012). Therefore, impacts would be less than significant.

Mitigation Measure(s)

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts associated with the program-level component would be less than significant. In addition, as indicated in Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR, there would be no impact associated with the project-level component. Therefore, impacts for the overall project would be less than significant.

Threshold (d) Result in inadequate emergency access.

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (d) would result in no impact for the project-level wetland mitigation bank creation; therefore, is not analyzed below.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels, subject to project-level review by the District. This impact analysis evaluates a reasonable development scenario for Parcels A, B, and C, which is a future commercial land use and relies on the reasonable development assumptions identified in Chapter 2, Project Description.

Parcels A, B, and C are located within a developed, urban area of the City of San Diego and entirely within the District's jurisdiction. Palm Avenue is identified as a tsunami evacuation route for the City of Imperial Beach and the Silver Strand in Coronado. Development of these parcels would not result in any permanent road closures or physical alteration of the existing roadway network. If any temporary

road or lane closures are needed during construction, the future commercial development project applicant would need to apply for a Caltrans encroachment permit for any work within the Caltrans ROW (Palm Avenue). A permit from Caltrans to operate or move a vehicle, or combination of vehicles or special-mobile equipment, of a size or weight of vehicle or load exceeding the maximum limitations specified in the California Vehicle Code would be required for the haul route if haul trucks would utilize Caltrans facilities. Caltrans also requires a Traffic Control Plan be submitted to Caltrans District 11, including the interchanges at I-5 and Palm Avenue, at least 30 days prior to the start of any construction. Additionally, if construction activities occur within a City of San Diego public ROW, a public ROW permit would be required by the City of San Diego municipal code Section 129.0702. Future commercial development on Parcel A would require permits from the City of Imperial Beach for modifications to the sidewalk, curb, or gutters. These permits would be reviewed by the issuing entity for compliance, and require consideration or potential closures/encroachments and specific measures to ensure such projects do not impact roadways/ROWs. As discussed under Threshold (c), driveways for the parcels would be reviewed and approved by city engineers and through the District's Tenant Project Plan Approval process. Additionally, as discussed in Section 3.12, Public Services, the existing fire stations would have sufficient capacity to provide service to the project site and any commercial development of these parcels. Furthermore, development on these parcels would provide fire apparatus access roads in compliance with California Fire Code Section 503. Therefore, future commercial development would not result in inadequate emergency access and impacts would be less than significant.

Mitigation Measure(s)

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts associated with the program-level component would be less than significant. In addition, as indicated in Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR, there would be no impact associated with the project-level component. Therefore, impacts for the overall project would be less than significant.



3.14 Tribal Cultural Resources

3.14.1 Overview

This section describes the existing conditions and applicable laws, regulations, and policies associated with TCRs, as well as an analysis of the potential effects resulting from implementation of the proposed project. Information contained in this section is summarized from the Cultural Resource Technical Report (Appendix F).

AB 52 amended CEQA to add another category of cultural resources: TCRs. TCRs 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 NAHC Sacred Lands File; included in, or eligible for, the CRHR; included in a local register of historical resources; or be determined significant by the CEQA lead agency.

3.14.2 Existing Conditions

On April 12, 2018, a record search was conducted at the California Historical Resources Information System SCIC, housed at San Diego State University. The purpose of the record search was to determine the extent of previous surveys of the project site and to identify previously documented prehistoric or historic archaeological sites and built environment resources within the project site and a 1-mile radius around it.

A record search of the Sacred Lands File was requested from the NAHC on April 11, 2018. The NAHC replied that a search of the Sacred Lands File for the project site was completed with negative results. The NAHC also enclosed a list of Native American groups and individuals who may be able to provide information about Native American cultural resources in the vicinity of the project site.

All persons and organizations on the NAHC contact list were contacted by email or fax on June 8, 2018, or by certified mail on June 9, 2018, to request information about Native American cultural resources that may exist within the project site and to inquire about any concerns regarding sacred sites or traditional cultural properties in the vicinity that might be affected by the proposed project. No replies were received. A complete record of correspondence with Native American groups and individuals is provided in Appendix F of this EIR.

Pursuant to PRC Section 21080.3.1, California Native American tribes traditionally and culturally affiliated with the project area can request notification of projects in their traditional cultural territory. At this time, no Native American tribes have requested consultation for projects subject to CEQA within the District’s jurisdiction. Additionally, the District has not received a specific request from a tribe for notification of the proposed project.

As described in Section 3.4, Cultural Resources, two previously recorded archaeological sites in the cultural resource survey area, sites CA-SDI-4360 and CA-SDI-19712, yielded cultural materials, including debitage, flaked stone artifacts, marine shell, groundstone, faunal bones, one non-human bone artifact, and human bone fragments that were determined to be Native American in origin. While the human remains were found outside of the project site, both archaeological resources extend into the project site boundaries. Due to the cultural materials found at these archaeological sites, there is a high likelihood that any human remains found may be of Native American origin and that such resources may be of significance to a California Native American tribe.

3.14.3 Applicable Laws, Regulations, and Policies

State

Assembly Bill 52

AB 52 (PRC 5097.94) seeks to recognize that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities. Tribes may have expertise with regard to their tribal history and practices, which concern the TCRs with which they are traditionally and culturally affiliated. Tribal knowledge about the land and TCRs at issue should be included in environmental assessments for projects that may have a significant impact on those resources.

In order to recognize tribal cultural values in addition to scientific and archaeological values when determining impacts and mitigation, AB 52 establishes a new category of resource under CEQA called TCRs (PRC 21074). TCRs are “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” (PRC 21074.1). In order to qualify as a TCR, a resource must be either of the following:

1. A resource listed or determined eligible for listing on the national, state, or local register of historic resources
2. A resource that a lead agency chooses to treat as a TCR based on the CRHR criteria and the cultural value of the resource to a California Native American tribe (PRC 21074)

AB 52 states that a project that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment (PRC 21084.2). If it is determined that a project may cause a substantial adverse change to a TCR, mitigation measures must be considered (PRC 21084.3).

AB 52 also establishes a process for consulting with Native American tribes regarding TCRs. AB 52 requires a lead agency to consult with any California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project and has requested to be notified of projects in its traditional cultural territory. If it wishes to engage in consultation on the project, the California Native American tribe must respond to the lead agency within 30 days of receipt of the formal project notification. The consultation process must be completed before a CEQA document can be certified (PRC 21080.3.1).

California Coastal Commission Tribal Consultation Policy

On August 8, 2018, the CCC adopted a Tribal Consultation Policy intended to strengthen its relationships with Native American Tribes, while encouraging further outreach and collaboration. For



CCC actions on planning matters, such as PMPAs, Section VI.4.a of the Tribal Consultation Policy outlines the following procedures to be followed by the CCC:

1. Upon receipt of such a plan for certification, and prior to determining whether the plan was “properly submitted” [...], review the submittal to determine the degree to which the local government preparing the plan consulted with Tribes regarding Cultural Resource effects pursuant to AB 52 [...]. Request that the local government submit additional information regarding tribal consultation, as appropriate and to the extent feasible given confidentiality limitations, although failure to do so would not generally be grounds for determining the submittal incomplete.

Promptly notify affected Tribes in the manner they have requested and initiate consultation if any of the following circumstances apply:

- a) Consultation is appropriate given the nature of the proposed plan and its potential for impacts on Tribal Interests;
 - b) CCC staff has reason to know that particular Tribes may have an interest in the Action (e.g., CCC staff has previously worked with a Tribe on concerns in the geographic area);
 - c) Any Tribe(s) expressed unresolved concerns about the Action’s impacts on Tribal Interests during a local review process or requests consultation with the CCC for the Action; or
 - d) A Tribe has specifically requested that the CCC notify it of this type of Action—e.g., all Actions in this location or of this type.
2. Regardless of whether the CCC engages in consultation as described above, provide written public notice to all interested Tribes in accordance with standard CCC notice procedures for upcoming hearings. Where feasible, schedule the item for the hearing in a location convenient to the project site in order to facilitate maximum participation by affected Tribes.
 3. Include in staff recommendations to the CCC a summary of the results of any local government and/or CCC staff consultations described in the Tribal Consultation Policy, with sensitivity to the Tribal confidentiality needs as described in the Policy, and with publicly available summaries of identified concerns included only if the affected Tribes agree to such disclosure in writing.

For federal consistency reviews under the CZMA of projects permitted or funded by federal agencies, Section VI.4.c(2) of the Tribal Consultation Policy outlines the following procedures to be followed by the CCC:

- A) Review submittals by applicants for federal permits, or applicants by state or local governments for federal funding (i.e., consistency certifications) to determine whether any CEQA documents were prepared, and if so, the extent of Tribal Consultation pursuant to AB 52.

[...]
- C) Notify all interested Tribes as early as possible in the review process and initiate consultation, if requested.
- D) Provide written Public Notice to all interested Tribes in accordance with standard CCC notice procedures for upcoming hearings.
- E) Include in staff recommendations to the CCC a summary of the results of any such consultation.

Confidentiality of Information on Archaeological Sites and Native American Places in California

Sections 6253, 6254, and 6254.10 of the California GC authorize state agencies to exclude information on archaeological sites from public disclosure under the Public Records Act. In addition, the California Public Records Act (GC 6250 et seq.) and California's open meeting laws (The Brown Act; GC 54950 et seq.) protect the confidentiality of information on Native American cultural places.

The California Public Records Act, as amended in 2005, contains two exemptions that aid in the protection of records relating to Native American cultural places by allowing any state or local agency to deny a California Public Records Act request and withhold public disclosure of:

- Records of Native American graves, cemeteries, and sacred places and records of Native American places, features, and objects described in Sections 5097.9 and 5097.993 of the PRC maintained by, or in the possession of, the NAHC, another state agency, or a local agency (GC 6254[r])
- 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, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a California Native American tribe and a state or local agency (GC 6254.10)

Additionally, the California Historical Resources Information System maintained by the OHP prohibits public dissemination of records and information about site locations. In compliance with these requirements, and those contained in the codes of ethics of the Society for American Archaeology, Society for California Archaeology, and Register of Professional Archaeologists, information about the location and nature of cultural resources is considered confidential information with highly restricted distribution and is not publicly accessible.

Treatment of Human Remains

Any project in California located on land that is not federally owned is required to comply with state laws pertaining to the inadvertent discovery of Native American human remains. California Health and Safety Code sections 7050.5, 7051, and 7054 address the illegality of interference with human burial remains, as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, as well as reburial procedures.

The Guidelines for Implementation of CEQA contain additional provisions regarding human remains (CCR 15064.5[d-e]). When an IS identifies the existence, or the probable likelihood, of Native American human remains within the project, a lead agency shall work with the appropriate Native Americans identified by the NAHC as provided in PRC 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, human remains and any items associated with Native American burials, with the appropriate Native Americans as identified by the NAHC. Action implementing such an agreement is exempt from:

1. The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5); and
2. The requirements of CEQA and the Coastal Act.

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 District does not have any policies specific to TCRs.

3.14.4 Environmental Impacts

This section presents the methodology applied for the evaluation, the significance criteria used for considering project impacts related to tribal cultural resources, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level component includes a PMPA to incorporate Parcels A, B, and C into the PMP and assigned a commercial recreation land use designation. At this time, no construction or operational activities are proposed on Parcels A, B, and C. The impact analysis below evaluates the reasonable scenario of commercial development on Parcels A, B, and C. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to a CDP and project approval, and any additional CEQA compliance.

Methodology

As discussed above, pursuant to AB 52, California Native American tribes traditionally and culturally affiliated with the project area can request notification of projects in their traditional cultural territory. At this time, no Native American tribes have requested consultation for projects subject to CEQA within the District's jurisdiction. Additionally, the District has not received a specific request from a tribe for notification of the proposed project. Therefore, the analysis below is based on the cultural resource records search and the NAHC Sacred Lands File search conducted for the proposed project.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to TCRs are considered significant if the project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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)
- 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Impact Analysis

Thresholds (a) and (b) *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

Project Level – Wetland Mitigation Bank and Program Level – Parcels A, B, and C Port Master Plan Amendment

Based on the negative results of the NAHC Sacred Lands File search and no reply from Native American representatives that were contacted for input on the project site and proposed project; no TCRs have been identified within the boundaries of the project site or in the immediate vicinity of the project. Moreover, no Native American tribes have requested notification of projects subject to CEQA within the District’s jurisdiction, pursuant to AB 52. Consequently, the NAHC has concluded that the District has completed its outreach requirements (Quinn 2020).

However, due to the presence of Native American archaeological sites CA-SDI-4360 and CA-SDI-19712 within the project site, as discussed in Section 3.4, Cultural Resources, and the previous recovery of Native American human remains in proximity to the project site, MM TCR-1 requires the presence of a Native American monitor during all ground-disturbing work or, if on-site monitoring is unfeasible, during off-site screening of a sample of the sediment removed, in accordance with the requirements of MM CR-1. The presence of a Native American monitor would minimize harm to and ensure the appropriate treatment of any undiscovered objects or features with cultural value to descendant communities, including Native American burial remains, associated and unassociated funerary objects, sacred objects, and other cultural patrimony.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

MM TCR-1 Native American Monitoring. The District shall invite a qualified Native American cultural resource monitor to be present during all archaeological investigations, grading, and subsurface disturbance within the project site. In the event that on-site monitoring of excavations is determined unfeasible due to safety or logistical concerns, the Native American monitor shall be present during off-site visual observation or screening of sediment, as detailed in MM CR-1. The Native American monitor shall work in coordination with the archeological monitor and the District’s qualified archaeologist, who shall notify them in advance of the schedule and locations for cultural resource monitoring activities. If more than one location is under construction at a given time, and if both locations cannot effectively be monitored by one individual, more than one Native American monitor may be required.



Because the Native American monitor is invited to participate, work shall be allowed to continue without their presence. The Native American monitor shall not have the authority to temporarily halt equipment or issue a stop-work order. The Native American monitor shall report any concerns and input to the archaeological monitor or the District's qualified archaeologist, who shall be responsible for taking the appropriate action in response.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

MM TCR-1 Native American Monitoring.

Significance after Mitigation

Implementation of MM TCR-1 would require the District to invite a Native American monitor who would minimize harm to and ensure the appropriate treatment of any undiscovered objects or features with cultural value to descendant communities, including Native American burial remains, associated and unassociated funerary objects, sacred objects, and other cultural patrimony. Impacts from the proposed project would be less than significant.

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3.15 Utilities and Service Systems

3.15.1 Overview

This section describes the existing utility and service systems that serve the project site, as well as the applicable laws, regulations, and policies that govern their use, supply and distribution, and performance. This section also discusses the proposed project’s potential to exceed the existing or planned infrastructure and treatment capacities for utilities and service systems.

3.15.2 Existing Conditions

The project site, including the Bank Parcel, and Parcels A, B, and C are vacant and not currently served by any utility providers. However, due to the urban location of the project site, the project site is within the service area of numerous utility providers. The utility providers that service the project site are listed in Table 3.15-1. Each service and utility is described in further detail below.

Table 3.15-1. Utility Service Providers

Utility Service	Provider
Wastewater	City of San Diego PUD (Wastewater Branch)
Water	City of San Diego PUD (Water Branch)
Stormwater	Port of San Diego
Solid Waste	City of San Diego Franchise Waste Hauler
Electricity and Natural Gas	SDG&E

Notes:

PUD=Public Utilities Department; SDG&E=San Diego Gas and Electric

Wastewater

The project site does not currently produce wastewater; however, the project site is in the service area of the Metropolitan Sewerage System. The Metropolitan Sewerage System is owned by the City of San Diego and operated by the City of San Diego’s Public Utilities Department’s (PUD) Wastewater Branch. The Metropolitan Sewerage System serves the Greater San Diego population of 2.2 million from 16 cities and districts generating approximately 180 million gallons per day (mgd) of wastewater. Improvements to the Metropolitan Sewerage System are planned to increase wastewater treatment capacity to serve an estimated population of 2.9 million through the year 2050 (Metro Wastewater JPA n.d.).

The Otay River Pump Station is located immediately adjacent to the project site and pumps wastewater to the Point Loma Wastewater Treatment Plant (PLWTP). Wastewater generated by the project site would be treated at the PLWTP, and the quality of wastewater discharge at PLWTP is regulated by NPDES Permit No. CA0107409 (City of San Diego n.d.a). The permit allows treatment of approximately 240 mgd. At present, the PLWTP meets the wastewater discharge requirements of the NPDES Permit and treats an average of 175 mgd, leaving an available capacity of approximately

65 mgd. Wastewater at the PLWTP is treated to an advanced primary level, at which point it is discharged to the ocean through a 4.5-mile-long ocean outfall.

As mentioned above, the Otay River Pump Station is located immediately adjacent to the project site. Sewer lines feed into the pump station from the south and east. A 30-inch trunk sewer pipeline and associated easement run north-south through the western side of Parcel C, as depicted on Figure 3.15-1. Additional sewer lines run along the southern portion of the Bank Parcel that abuts the Bayside Palms Mobilehome Village and north-south through Parcel B (Figure 3.15-1). The City of San Diego has an easement for these sewer lines.

Water

The project site is in the water service area provided by the City of San Diego PUD Water Branch, which serves over 1.38 million people and a water system that extends 404 square miles. The PUD Water Branch is an agency member of the San Diego County Water Authority. It maintains and operates more than 3,253 miles of water lines and 49 water pump stations. Over 90 percent of the water supply is imported from northern California and the Colorado River (City of San Diego 2010).

Every 5 years, the City of San Diego prepares an Urban Water Management Plan (UWMP) that contains future water demand and supply projections in accordance with the California Water Code and the California Urban Water Management Planning Act (UWMPA) (City of San Diego 2016). The currently adopted 2015 UWMP serves as the overarching water resources planning document for the City of San Diego. Table 3.15-2 lists the water demand and supply projections for the years 2020, 2025, 2030, 2035, and 2040 for a normal year, a single dry year, and multiple dry years. The 2015 UWMP supply reliability assessment is based on historical reservoir inflow and demand factors as a function of climate. Demand projections are based on models of residential (water used for human consumption in the home) and non-residential water use (commercial, industrial, and institutional) incorporating factors such as weather, income, price of water, economy, drought, passive conservation, and projected housing and employment demographics.

Table 3.15-2. City of San Diego Water Demand vs Supply in Acre-Feet per Year (Normal Year, Single Dry Year, Multiple Dry Years)

Demand/Supply	Demand and Supplies (AFY)				
	2020	2025	2030	2035	2040
Normal Year					
Demand	200,984	242,038	264,840	273,748	273,408
Supply	200,984	242,038	264,840	273,748	273,408
Estimated Water Shortage	0	0	0	0	0
Single Dry Year					
Demand	213,161	256,883	281,167	290,654	290,292
Supply	213,161	256,883	281,167	290,654	290,292



Table 3.15-2. City of San Diego Water Demand vs Supply in Acre-Feet per Year (Normal Year, Single Dry Year, Multiple Dry Years)

Demand/Supply	Demand and Supplies (AFY)				
	2020	2025	2030	2035	2040
Estimated Water Shortage	0	0	0	0	0
Multiple Dry Year (1st)					
Demand	213,161	256,883	281,167	290,654	290,292
Supply	213,161	256,883	281,167	290,654	290,292
Estimated Water Shortage	0	0	0	0	0
Multiple Dry Year (2nd)					
Demand	200,610	241,581	264,338	273,228	272,888
Supply	200,610	241,581	264,338	273,228	272,888
Estimated Water Shortage	0	0	0	0	0
Multiple Dry Year (3rd)					
Demand	208,665	251,402	275,139	284,412	284,058
Supply	208,665	251,402	275,139	284,412	284,058
Estimated Water Shortage	0	0	0	0	0

Source: City of San Diego 2016

Notes:

AFY=acre feet year

Stormwater

The project site is within the Otay Watershed, which is the second largest HU in San Diego County. The HU discharge into both the San Diego Bay and Pacific Ocean and encompasses approximately 98,500 acres of land (RWQCB 2016). A stormwater drain is located on the western portion of the project site, on the west side of Parcel A. Another stormwater drain enters the site in the southwest corner from Palm Avenue and feeds the Otay River Tributary.

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Figure 3.15-1. Utilities in the Project Vicinity



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Solid Waste

The project site is currently not serviced by a waste collector; however, the project site is within City of San Diego jurisdiction. The City of San Diego operates a Non-Exclusive Solid Waste Collection System and maintains a list of city-approved waste haulers per San Diego Municipal Code Section 66.0101. The companies on the franchised hauler list provide collection services to residents and businesses within the City of San Diego (City of San Diego 2017). In 2018, the City of San Diego and its franchised haulers collected approximately 410,700 tons of solid waste from 289,000 residences in San Diego, including over 65,000 tons of household recyclables and over 33,000 tons of yard waste.

San Diego County has four active landfills that accept solid waste: Miramar Landfill, Sycamore Landfill, Otay Landfill, and Borrego Springs Landfill. Table 3.15-3 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 3.15-3 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 Landfill	113,972,637 cubic yards	2042
Otay Landfill	21,194,008 cubic yards	2030
Borrego Landfill	111,504 cubic yards	2046

Source: CalRecycle 2019

The Miramar Landfill and Sycamore Landfill are the active landfills within the City of San Diego and accept solid waste and recycling from the franchised haulers. The City of San Diego's trash reduction and recycling programs and innovative engineering have helped extend the Miramar Landfill's working life, originally scheduled to close as early as 1995. Currently, the Miramar Landfill is estimated to be in service through 2030 (City of San Diego 2015). Almost 910,000 tons of waste is disposed of each year at the Miramar Landfill, which has operated since 1959 (City of San Diego N.D.b). Once the Miramar Landfill is closed, solid waste from the project site would likely be routed to the Sycamore Landfill, which has a remaining capacity of 113.9 million cubic yards, and the Otay Landfill, which has a remaining capacity of 21.2 million cubic yards (CalRecycle 2019). The City of San Diego recently prepared an Addendum to the Miramar Landfill Service Life Expansion EIS/EIR, which proposes to expand the height of the landfill; however, the addendum has not been approved by all regulating bodies (City of San Diego 2019; Los Angeles Times 2019).

Electric and Natural Gas

San Diego County is served by SDG&E, which provides energy service to over 3.6 million people (i.e., 1.4 million electric meters and 873,000 natural gas meters) 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 2018, more than 43 percent of the electricity SDG&E supplied was from renewable energy sources, compared to less than 1 percent in 2002 (SDG&E 2020).

On the project site, overhead SDG&E electric distribution lines run north to south along the western edge of Parcel C, as depicted on Figure 3.15-1. SDG&E has an easement for these distribution lines.

3.15.3 Applicable Laws, Regulations, and Policies

State

California Water Code (Section 10910)

California Water Code Section 10910 (or SB 610), which became effective on January 1, 2002, requires local governments and water suppliers to prepare water supply assessments (WSA) for projects subject to CEQA (California Water Code Section 10912(a)) that propose to construct 500 or more residential units or that will use an amount of water equivalent to 500 residential units. The project would not meet these standards for compliance.

California Water Code (Section 10610)

The UWMPA is intended to promote collaborative planning between local water suppliers and cities and counties and is the basis for UWMPs. The UWMPA requires every urban water supplier that provides water to 3,000 or more customers, or provides more than 3,000 acre-fee of water annually, complete long-term water planning and ensure reliability to meet the needs of its customers during normal, dry, and multiple dry years.

The UWMPA is intended to promote collaborative planning between local water suppliers and cities and counties and is the basis for UWMPs. UWMPs provide water suppliers with information necessary to comply with Section 10910, including 20-year forecasts of water demand for a normal year, a dry year, and multiple dry years. The proposed project would not require a WSA because a public water system is available for the project site.

California Integrated Waste Management Act

IWMA (AB 939), passed in 1989, repealed portions of the Title 7.3 of the GC governing solid waste management and portions of the Health and Safety Code related to garbage and refuse disposal. The IWMA established an integrated waste management hierarchy to guide local agencies in implementing source reduction, recycling and composting, and environmentally safe transformation and land disposal. The IWMA created the California Integrated Waste Management Board and required counties to create a task force for the development of Source Reduction and Recycling Elements. Additionally, it established a mandated waste diversion target of 50 percent of all solid waste from landfills each year.

California Code of Regulations

New buildings constructed in California must comply with the standards contained in CCR Title 20, Energy Building Regulations, and Title 24, Energy Conservation Standards. Title 20, Energy Building Regulations, 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. Title 24, Building Energy Efficiency Standards, are

divided into three sets of standards. The first is mandatory requirements that apply to all buildings; the second is a set of performance standards that vary by climate zone and building type; the third constitutes an alternative to the performance standards for compliance. The standards are updated periodically (most recently in 2018) 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 2019 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.

Local

The project is within the District's jurisdiction and is generally not subject to City of San Diego regulations. However, the wastewater, water, and solid waste collection system serving the project are administered by the City of San Diego. As such, City of San Diego building code standards related to utilities and service systems are applicable to the project.

District Green Port Program and Policy (Board of Port Commissioners Policy 736)

The District's Green Port Program supports the goals of the Green Port Policy that was approved by the BPC in 2008 to achieve long-term environmental, societal, and economic benefits through resource conservation, waste reduction, and pollution prevention. The Green Port Program goals encompass six key areas: energy, waste management, sustainable development, as well as water, air, and sustainable business practices. For waste management, the District's goal is to reduce waste from District operations through material reuse, recycling, and composting.

City of San Diego Sewer Design Guide

The City of San Diego's Sewer Design Guide was last updated in 2015 and acts as a guide for engineers when planning and designing wastewater facilities. The guide was prepared for use by both public and private facilities and outlines all relevant city policies, applicable codes, and engineering and operational procedures. The guide was made in effort to establish a cost-effective, reliable, and safe wastewater collection system and is intended for use in conjunction with current standard drawings, specifications, codes, laws, and industry requirements for the planning and design of wastewater infrastructure.

City of San Diego Urban Water Management Plan

As discussed previously, the City of San Diego prepares an UWMP every 5 years to publish projected future water demand and supply projections in accordance with the California Water Code and the UWMPA. The 2015 UWMP is the most currently adopted plan and serves as the overarching water resources planning document for the City of San Diego. It services as a resource for planners, policy makers, and water agencies and suppliers over a 25-year time frame. The 2015 UWMP discloses that all projected water demand would be met during normal, dry, and multiple-dry year scenarios.

San Diego County Integrated Waste Management Plan

The County of San Diego prepared its Integrated Waste Management Plan to meet the requirements of the California IWMA and to achieve an overall reduction in the generation of waste and apply to treat discarded materials as a resource. Countywide goals included in the Integrated Waste Management Plan are to ensure an effective and economical integrated waste management system throughout the county. The plan includes a Siting Element, Summary Plan, and three elements from each jurisdiction: the Source Reduction and Recycling Element, Household Hazardous Waste Element, and Non-Disposal Facility Element.

City of San Diego Long-Term Resource Management Options Strategic Plan

The City of San Diego's Long-Term Resource Management Options Strategic Plan (Long-Term Strategic Plan) identifies options for managing solid waste generated within the City and disposed of at the Miramar Landfill. At the time the Long-Term Strategic Plan was prepared, Miramar Landfill, the City's only municipally operated landfill, was projected to reach capacity and close by 2021 and Sycamore Landfill was projected to reach capacity in 2025. The Long-Term Strategic Plan includes three phases that began in 2007. Phase I included a system analysis, regional demand and capacity analysis, and identification of screening options. Phase II included a review of the City's existing and future diversion programs and disposal system and recommended potential solutions to meet future solid waste generation. Phase III, not yet completed, will recommend a specific strategy and configuration system with a detailed implementation plan.

City of San Diego City Council Policy 900-16

City Council Policy 900-16 (Construction and Demolition Material Recycling) was enacted in 2004 as a commitment to recycling construction and demolition waste. The efforts are part of the City of San Diego's comprehensive solid waste management strategy. The policy encourages businesses, organizations, and contractors to facilitate as much waste diversion from landfills as possible through recycling, waste reduction, and reuse. Diversion goals are set at 100 percent of inert materials (e.g., concrete, rock, asphalt, dirt) and 50 percent of remaining materials by weight if mixed recycling facilities are available or as much as feasible through source separation if mixed recycling facilities are not available.

City of San Diego Construction and Demolition Debris Deposit Ordinance

The City of San Diego's Construction and Demolition Debris Deposit Ordinance took effect in 2008 and updated in 2016, requiring projects subject to building or demolition permits to pay a refundable construction and demolition recycling deposit and divert at least 65 percent of generated debris by recycling, reusing, or donating usable materials.

3.15.4 Environmental Impacts

This section presents the methodology applied for the evaluation, the significance criteria used for considering project impacts related to utilities and service systems, an impact evaluation, and mitigation requirements, if necessary. The project-level component includes creation of a wetland mitigation bank, staging on Parcels B and C, and a PMPA to assign a land use designation of wetlands to the Bank Parcel. The program-level component includes a PMPA to incorporate Parcels A, B, and C into the PMP, which requires a land use designation be assigned. The parcels are proposed to be assigned a commercial recreation land use designation. At this time, no construction or operational

activities are proposed on Parcels A, B, and C. The impact analysis below evaluates a reasonable scenario of commercial development on Parcels A, B, and C. Any future project-level commercial development proposals would require discretionary approvals from the District, such as but not limited to a CDP and project approval, and any additional CEQA compliance.

Methodology

This section evaluates impacts on utilities and service systems that would result from project implementation. Where available, the existing utility demands of the project site were compared to the anticipated demands with project implementation. Impacts are considered significant if the project would result in an exceedance of local service capacities and/or requirements, among others. However, any need for physical improvements to existing infrastructure, such as on-site distribution pipelines or other service structures, is considered part of the project. The thresholds for determining significance are defined below.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to utilities/service systems are considered significant if any of the following occur:

- a) Require or result in the relocation or construction of new or expanded water treatment or stormwater drainage, electrical power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects
- b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
- c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments
- d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
- e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (a), (b), and (c) would result in a less than significant impact or no impact for the project level wetland mitigation bank creation, and therefore, are not included in the analysis below (see Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR).

Impact Analysis

Threshold (a) Require or result in the relocation or construction of new or expanded water treatment or stormwater drainage, electrical power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects.

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (a) would result in no impact for the project-level wetland mitigation bank creation; therefore, it is not analyzed below.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. All three parcels are currently vacant, and existing sewer pipes and overhead power lines on site are not actively serving the parcels.

Future commercial development would require connection to numerous utilities to support the commercial development, including water, sewer, electricity, natural gas, and telecommunication. The future commercial development project proponent would be required to coordinate with the applicable utility providers to confirm connect requirements to Parcels A, B, and C.

The PMP allows for the following uses under the commercial recreation land use designation: hotels, restaurants, convention center, recreational vehicle parks, specialty shopping, pleasure craft marinas, water-dependent educational and recreational program facilities and activities, dock and dine facilities, and sportfishing. However, since the specific type of future commercial development on Parcels A, B, or C is unknown, the default settings in CalEEMod for a total of 105,000 square feet (2.4 acres) of specialty retail/strip commercial development across all three parcels was used to estimate potential utility usage (see CalEEMod results in Appendix D). The same CalEEMod results were used to analyze air quality, GHG emissions, and energy consumption.

WATER

The City of San Diego's 2015 UWMP reports total citywide water demand for 2020 in year three of a multiple dry year at 208,665 acre feet year (AFY). This is projected to increase by 75,393 AFY (or 136 percent) to 284,058 AFY in 2040. According to the San Diego UWMP, the city expects to meet projected demand needs through 2040 (City of San Diego 2016). Demand is based on SANDAGs 2050 Regional Growth Forecast, which includes anticipated growth in land use developments. SANDAG estimates a total of 1,533 acres of commercial/services developments by 2050 (SANDAG 2013). If the combined Parcels A, B, and C (105,000 square feet or 2.4 acres) were developed, it would represent less than 0.15 percent of the overall commercial/services development growth in the city by 2050.

Development of 105,000 square feet of specialty retail/strip commercial development on all three parcels would demand an estimated 7.7 million gallons of water indoors and 4.7 million gallons of water outdoors, for a total of 12.55 million gallons (38.51 AFY) of water per year (see CalEEMod results in Appendix D). Project water demand would represent less than 0.01 percent of the projected increase in water demand of 284,058 AFY for 2040. As discussed in 3.7, Greenhouse Gas Emissions, MM GHG-1 requires reduction of indoor water consumption by 20 percent lower than baseline buildings through the use of low-flow fixtures and installation of low-water plantings and drip irrigation to minimize domestic water demand from the city system. Therefore, it is unlikely that future commercial development on all three parcels would result in the need for new or expanded off-site water facilities.

WASTEWATER

Wastewater from the project site would be treated at PLWTP, which has an available capacity of approximately 65 mgd. Development of 105,000 square feet of specialty retail/strip commercial development on all three parcels would demand an estimated 7.7 million gallons of water indoors and 4.7 million gallons of water outdoors, for a total of 12.55 million gallons (38.51 AFY) of water per year

(see CalEEMod results in Appendix D). Conservatively assuming that 100 percent of this water use would be treated as wastewater, approximately 12.55 million gallons per year (34,383 gallons per day or 0.02 mgd) represents less than 0.03 percent of the remaining daily capacity of 65 mgd of wastewater at PLWTP. Therefore, it is unlikely that future commercial development on all three parcels would result in the need for new or expanded wastewater treatment facilities.

STORM DRAINAGE

The project site currently has existing storm drainage facilities located on the western portion of Parcel A and another drain that enters the project site on the southwest corner from Palm Avenue and feeds the Otay River Tributary. As discussed in Section 3.9, Hydrology and Water Quality, development of these parcels would result in new impervious surfaces since all three parcels, with the exception of the southern portion of Parcel B, are all currently pervious. All three parcels are surrounded by urban development and existing drainage features. The project site would continue to drain into the nearby drainages, including the Otay River Tributary and Nestor Creek. If Parcels A, B and C are developed as a commercial development, the future commercial development proponent would be required to prepare a project-specific SWQMP for approval by the District that identifies hydromodification management flow control structural BMPs, LID features (site design and source control BMPs). Therefore, it is unlikely that the development of the parcels would result in the need for new or expanded storm drainage facilities.

ELECTRIC POWER, NATURAL GAS, TELECOMMUNICATIONS

The project site is located in a developed urban area of the City of San Diego, which has existing infrastructure for electric power, natural gas, and telecommunications services. Electricity and natural gas would be provided to the site by SDG&E. In 2018, SDG&E customers used 21,207 gigawatt hours of electricity and 482 million therms of natural gas (CEC 2018), of which commercial uses consume approximately 53 percent of the electricity and 39 percent of the natural gas. As discussed in Section 3.5, Energy, development of 105,000 square feet of specialty retail/strip commercial development on all three parcels would demand approximately 2341.5 therms and 1.32 gigawatt hours of electricity. Therefore, it is unlikely that the development of the parcels would result in the need for new or expanded electric or natural gas facilities.

CONCLUSION

As discussed above, the estimated increase in utility demand from future commercial development would not exceed the capacity of the existing utility providers. However, Parcels A and C have never been developed, and therefore, do not have connection to water, sewer, electricity, or natural gas. The southern portion of Parcel B has been developed and has previously been connected to utility services. In order to connect Parcels A and C to power and water, construction or relocation of new or existing facilities may be required.

The construction or relocation of utilities would require trenching, excavation, and grading. Construction activities could result in direct and indirect impacts on biological, cultural, and TCRs and would result in construction-related impacts including noise generation and emission of criteria air pollutants.

Potential impacts associated with construction of future commercial development are analyzed throughout the applicable sections of this EIR, including Section 3.2, Air Quality, Section 3.3 Biological Resources, Section 3.4 Cultural Resources, Section 3.11, Noise, and 3.14, Tribal Cultural Resources.

A summary of the relevant impacts and mitigation measures proposed to reduce significant impacts due to construction or relocation of utilities is discussed below.

Air Quality. As discussed in Section 3.2, Air Quality, the program-level construction emissions would not exceed either SDAPCD's daily or annual emission thresholds. Therefore, short-term air quality impacts from construction of future commercial development and potential relocation of utilities would be less than significant.

Biological Resources. As discussed in Section 3.3, Biological Resources, there are no special status plant species or sensitive natural communities located on Parcel A, B, and C; however, several special status plant species have the potential to occur. Suitable habitat for several special status wildlife species is present on Parcels A and C. Jurisdictional wetlands and waters are present on Parcel A and within the Otay River Tributary and Nestor Creek. Future commercial development, including construction activities associated with new or relocated utility facilities may result in direct or indirect impacts on special status species or jurisdictional wetlands. This is considered a potential significant impact.

MM BR-1 would require implementation of biological resource protection measures during construction, which would reduce impacts on special status plants and wildlife by requiring a range of measures, such as WEAP training and requiring vegetation removal occur outside of bird breeding season. MM BR-2 would require preconstruction rare plant surveys, which would identify target species that would need to be restored. Implementation of MM BR-3 would require restoration of temporary impacts, which would restore suitable habitat. Implementation of MM BR-4 would require preconstruction avian surveys for federally and state listed species to determine presence of these species and install appropriate buffers. Implementation of MM BR-5 would require preconstruction surveys for burrowing owl to determine presence of the species and install appropriate buffers. MM BR-7 would require implementation of biological resource protection measures during operation including using non-invasive plant species in landscaping. MM BR-8 would require wildlife surveys on Parcels A, B, and C prior to construction to determine presence of species in order to avoid impacts. MM BR-10 would require compensatory mitigation for permanent impacts on jurisdictional wetlands.

Upon implementation of MM BR-1, MM-BR-2, MM BR-3, MM BR-4, MM BR-5, MM BR-7, MM BR-8, and MM BR-10, impacts would be reduced to a less than significant level.

Cultural Resources. As discussed in Section 3.4, Cultural Resources, there are two archeological sites that could be impacted by future commercial development on Parcels A, B, and C. Archeological site CA-SDI-4360 extends into the western portion of the project site, including the entirety of Parcel A. Potential future commercial land use in Parcel A may result in the destruction or alteration of potentially significant archaeological deposits within a portion of this resource. Archeological site CA-SDI-19712 extends across approximately 60 percent of the Bank Parcel and into Parcels B and C. There is a high likelihood that potentially significant subsurface archaeological deposits may be present at unknown depths both within and beyond the recorded boundary of CA-SDI-19712. These deposits may be impacted by even the most limited amount of ground disturbance. Avoidance and preservation in place of potentially significant subsurface archaeological deposits associated with CA-SDI-19712 would not be possible because grading of the Bank Parcel and dredging of tidal channels are essential project-level components of the proposed project. These are considered significant impacts.

MM CR-1 would require preparation of a CRMMP, which includes a plan for testing, data recovery, and monitoring of the site. MM CR-3 establishes protocol for inadvertent discovery of human remains.

Upon implementation of MM CR-1 and MM CR-3, impacts would be reduced to a less than significant level.

Noise. As discussed in Section 3.11, Noise, the nearest sensitive receptors to the project site are the residences located immediately adjacent to Parcels A, B, and C. The City of Imperial Beach does not have any specific construction noise thresholds, and the City of San Diego's construction noise threshold is averaged over a 12-hour period. Therefore, the average distance, not the closest distance, is used in this analysis. The average distance from the construction activities to these sensitive land uses is approximately 250 feet. Construction noise would attenuate with increased distance from the noise sources. Composite L_{eq} noise levels at 250 feet, were evaluated assuming spherical free-field spreading. The noise levels associated with construction activities of new or relocated utility facilities would not exceed the city's 75 dBA L_{eq} construction noise threshold based on the average distance from construction activities (see Table 3.11-11 in Section 3.11, Noise). Therefore, impacts from future commercial development construction noise would be less than significant.

Tribal Cultural Resources. As discussed in Section 3.14, Tribal Cultural Resources, based on the negative results of the NAHC Sacred Lands File search and no reply from Native American representatives that were contacted for input on the project site and proposed project, no TCRs have been identified within the boundaries of the Bank Site, Parcels B and C, or in the immediate vicinity of the project. Moreover, no Native American tribes have requested notification of projects subject to CEQA within the District's jurisdiction, pursuant to AB 52. Consequently, the NAHC has concluded that the District has completed its outreach requirements (Quinn 2020).

However, due to the presence of Native American archaeological sites CA-SDI-4360 and CA-SDI-19712 within the project site, as discussed in Section 3.4, Cultural Resources, and the previous recovery of Native American human remains in proximity to the project site, MM TCR-1 requires the presence of a Native American monitor during all ground-disturbing work or, if on-site monitoring is unfeasible, during off-site screening of a sample of the sediment removed, in accordance with the requirements of MM CR-1.

MM TCR-1 requires the presence of a Native American monitor who would minimize harm to, and ensure the appropriate treatment of, any undiscovered objects or features with cultural value to descendant communities, including Native American burial remains, associated and unassociated funerary objects, sacred objects, and other cultural patrimony. Upon implementation of MM TCR-1, impacts would be reduced to a less than significant level.

Mitigation Measure(s)

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

- MM BR-1** **Implement Biological Resource Protection Measures During Construction.** For details, see Section 3.3, Biological Resources.
- MM BR-2** **Preconstruction Rare Plant Surveys.** For details, see Section 3.3, Biological Resources.
- MM BR-3** **Restoration of Temporary Impacts.** For details, see Section 3.3, Biological Resources.
- MM BR-4** **Preconstruction Surveys for Federally and State Listed Avian Species.** For details, see Section 3.3, Biological Resources.
- MM BR-5** **Preconstruction Surveys for Burrowing Owl.** For details, see Section 3.3, Biological Resources.
- MM BR-7** **Implement Resource Protection Measures During Operation.** For details, see Section 3.3, Biological Resources.
- MM BR-8** **Wildlife Surveys for Parcels A, B, and C.** For details, see Section 3.3, Biological Resources.
- MM BR-10** **Compensatory Mitigation for Impacts on WOUS, CCC Wetland, and CDFW-Regulated Streambed.** For details, see Section 3.3, Biological Resources.
- MM CR-1** **Preparation of a Cultural Resource Mitigation and Management Plan.** For details, see Section 3.4, Cultural Resources.
- MM CR-3** **Inadvertent Discovery of Human Remains.** For details, see Section 3.4, Cultural Resources.
- MM TCR-1** **Native American Monitoring.** For details, see Section 3.14, Tribal Cultural Resources.

Significance after Mitigation

Implementation of MM BR-1, MM-BR-2, MM BR-3, MM BR-4, MM BR-5, MM BR-7, MM BR-8, and MM BR-10 would reduce impacts on special status plant and wildlife species and jurisdictional wetlands by requiring protection measures during construction, restoration of temporary impacts, surveys for species, and compensatory mitigation for permanent impacts on jurisdictional wetlands and waters. Implementation of MM CR-1, MM CR-3, and MM TCR-1 would reduce impacts on known and unknown archeological sites by requiring an archeological treatment plan for known resources and a monitoring program for unknown resources.

Implementation of MM BR-1, MM-BR-2, MM BR-3, MM BR-4, MM BR-5, MM BR-7, MM BR-8, MM BR-10, MM CR-1, MM CR-3, and MM TCR-1 would reduce impacts from the construction or relocation of utilities as a result of the proposed project to less than significant. In addition, as indicated in Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR, there would be no impact associated with the project-level component. Therefore, impacts for the overall project would be less than significant with mitigation incorporated.

Threshold (b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (b) would result in no impact for the project-level wetland mitigation bank creation; therefore, it is not analyzed below.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of “commercial recreation” would allow for future commercial development of these parcels, subject to project-level review by the District. The San Diego region has historically experienced periods of wet and dry weather; however, water supplies have historically been sufficient to meet San Diego regional demands (City of San Diego 2016). The WSA requirements were reviewed and the proposed project would not require a WSA because it does not propose to construct 500 or more residential units, or a use that would be the amount of water equivalent to 500 residential units.

The type of future commercial development would determine the amount of water required for operation. As discussed under Threshold (a) above, if the combined Parcels A, B, and C (105,000 square feet or 2.4 acres) were developed, it would represent less than 0.15 percent of the overall commercial/services development growth in the City of San Diego by 2050.

Future specialty retail/strip commercial development on all three parcels would demand an estimated 12.55 million gallons (38.51 AFY) of water per year (see CalEEMod results in Appendix D). Project water demand would represent less than 1 percent during normal years (273,408 AFY), less than 1 percent during dry years (290,292 AFY), and less than 1 percent during multiple dry years (284,058 AFY) of the projected increase in water demand for 2040. Additionally, as discussed in Section 3.7, Greenhouse Gas Emissions, MM GHG-1 requires reduction of indoor water consumption by 20 percent lower than baseline buildings through the use of low-flow fixtures and installation of low-water plantings and drip irrigation to minimize domestic water demand from the city system. Therefore, it is likely that the City of San Diego would have sufficient water supplies available to serve 105,000 square feet of future commercial development; impacts would be less than significant.

Mitigation Measure(s)

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts associated with the program-level component would be less than significant. In addition, as indicated in Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR, there would be no impact associated with the project-level component. Therefore, impacts for the overall project would be less than significant.

Threshold (c) Result in a determination by the wastewater treatment provider which serves or may serve the project that has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

As discussed in the IS and Environmental Checklist (Appendix A), Threshold (c) would result in a less than significant impact for the project-level wetland mitigation bank creation; therefore, it is not analyzed below.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. During construction, temporary portable 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.

For operation of future commercial development, the project site would need to be connected to wastewater facilities. As discussed under Threshold (a) above, if the combined Parcels A, B, and C (105,000 square feet or 2.4 acres) were developed, it would represent less than 0.15 percent of the overall commercial/services development growth in the City of San Diego by 2050.

As discussed under Threshold (a) above, future specialty retail/strip commercial development would create demand for an estimated 12.55 million gallons (38.51 AFY) of water per year (CalEEMod). Conservatively assuming that 100 percent of this water use would be treated as wastewater, approximately 12.55 million gallons per year (34,383 gallons per day or 0.02 mgd) represents less than 0.03 percent of the remaining daily capacity of 65 mgd of wastewater at PLWTP. Therefore, future specialty retail/strip commercial development would not likely require the construction of new treatment facilities as the PLWTP would have adequate capacity to treat the wastewater produced by the proposed project. Impacts would be less than significant.

Mitigation Measure(s)

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts associated with the program-level component would be less than significant. In addition, as indicated in Section 5.4, Effects Found Not to be Significant, in Chapter 5 of this EIR, impacts associated with the project-level component would be less than significant. Therefore, impacts for the overall project would be less than significant.

Threshold (d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

Project Level – Wetland Mitigation Bank

During construction of the wetland mitigation bank, approximately 430,000 cubic yards would be excavated and accounting for 25 percent expansion, approximately 537,000 cubic yards of soil would need to be exported from the project site. While no construction is proposed at this time, construction of future commercial development would be required to comply with District policy, and state and local requirements for waste reduction and recycling. Compliance with AB 939 would be mandatory and would include recycling at least 50 percent of solid waste. Compliance with the City of San Diego's Construction and Demolition Debris Deposit Ordinance would also be mandatory and would include recycling at least 65 percent of all construction and demolition debris. Landfill demands would be minimized by recycling all possible materials, such as soil, during project construction.

As discussed in Section 3.8, Hazards and Hazardous Materials, the Soil Assessment Report prepared for the project (Appendix H) concluded that it is likely the majority of the 537,000 cubic yards may be reused off site, as opposed to disposed of at a landfill. All 32 test pit sampling locations were identified to be suitable for unrestricted off-site reuse. The soil would be exported to the several potential locations identified in Chapter 2, Project Description, including the Chula Vista Bayfront or USFWS-managed Pond 10. The soil that is not suitable for off-site or on-site reuse is due to soil contamination and would need to be disposed of at an appropriate landfill facility.

The exact amount of soil that would need to be disposed of at an appropriate landfill facility is unknown until screening of soil is conducted during construction. Based upon the Soil Assessment Report prepared for the project (Appendix H), soil contamination is anticipated to be isolated to a few known locations on the project site; therefore, a small percentage of soil is anticipated to be contaminated (likely less than 15 percent based on the isolated locations of known contamination, see Figure 3.8-2 in Section 3.8, Hazards and Hazardous Materials). Disposal of contaminated soil could be sent to a number of facilities within San Diego County, as shown in Table 3.15-3. Due to the distance and limited capacity, Borrego Landfill would not be used to dispose of contaminated soil. The remaining three landfills have the capacity to accept contaminated soil from the project site. Otay Landfill is the closest in proximity and would be the preferred landfill to reduce impacts associated with longer truck trips. The wetland mitigation bank would not generate solid waste in excess of the capacity of local infrastructure and would not conflict with the attainment of solid waste reduction goals by reusing soil as feasible. Impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operation of commercial development is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation would allow for future commercial development of these parcels, subject to project-level review by the District. The PMP allows for the following uses under the commercial recreation land use designation: hotels, restaurants, convention center, recreational vehicle parks, specialty shopping, pleasure craft marinas, water-dependent educational and recreational program facilities and activities, dock and dine facilities, and sportfishing. All of these land uses would likely generate solid waste during construction and operation.

The project site is not currently served by a waste hauler; however, one of the companies on the City of San Diego's franchised hauler list would serve the project site. Solid waste would likely be

transported to the Otay Landfill, which is projected to reach full capacity in 2030. When the Otay Landfill reaches capacity, the chosen hauler would be responsible for disposing solid waste at a landfill in the region with sufficient permitted capacity as shown in Table 3.15-3.

Diversion rates are used to report solid waste disposal in the City of San Diego and to address state and local recycling goals, which require each city in the state to divert at least 65 percent of its solid waste from landfill disposal through measures such as source reduction, recycling, and composting. The City of San Diego's diversion rate in 2012 was 68 percent (Cascadia Consulting Group 2014). According to CalRecycle's 2018 Jurisdiction Diversion/Disposal Rate Summary for San Diego, the city meets its target employment disposal rate of 15.8 pounds per person per day with an annual rate of 10.7 pounds per person per day (CalRecycle 2018). Future specialty retail/strip commercial development would be required to comply with federal, state, and local statutes and regulations related to solid waste and recycling, such as AB 939, through participation in existing City of San Diego waste diversion programs. MM GHG-1, as described in Section 3.7 Greenhouse Gas Emissions, requires compliance with AB 939.

Future specialty retail/strip commercial development could generate approximately 110.25 tons of waste per year (0.30 tons of solid waste per day) (see CalEEMod results in Appendix D). This estimate is conservative since it does not factor in any recycling or waste diversion programs that would be implemented per MM GHG-1. The Otay Landfill has a permitted remaining capacity of 21,194,008 cubic yards by 2020 and a maximum permitted disposal rate of 6,700 tons per day (Republic Services 2020). The 0.30 ton per day of solid waste generated by the potential future development would be approximately 0.004 percent of the daily maximum permitted disposal rate at the Otay Landfill.

Therefore, future commercial development would not generate solid waste in excess of the capacity of local infrastructure and would not conflict with the attainment of solid waste reduction goals by reusing soil as feasible. Impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

Threshold (e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Project Level – Wetland Mitigation Bank

As discussed under Threshold (d) above, during construction of the wetland mitigation bank, approximately 537,000 cubic yards of soil (accounting for 25 percent expansion in volume) would need to be exported from the project site. In compliance with District policy, and compliance with state and local requirements for waste reduction and recycling, including the 1989 California IWMA, which calls



for a diversion target of 50 percent of solid waste, landfill demands would be minimized by recycling soil during project construction.

As discussed in Section 3.8, Hazards and Hazardous Materials, the Soil Assessment Report prepared for the project concluded that the majority of the 537,000 cubic yards may be reused offsite (Appendix H). The soil would be exported to the several potential locations identified in Chapter 2, Project Description. The soil that is not suitable for offsite or on-site reuse is due to soil contamination and would need to be disposed of at an appropriate landfill facility. The project would reuse as much soil as feasible and recycle soil during construction to be in compliance with the California IWMA and the City of San Diego's Policy 900-16, which both set diversion goals for waste related to construction and demolitions. Impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

As discussed under Threshold (d) above, while no construction is proposed at this time, construction of future commercial development would be required to comply with District policy, and state and local requirements for waste reduction and recycling by mandatory compliance with AB 939, which would require recycling at least 50 percent of solid waste. Additionally, under AB 939 any development over 40,000 square feet is required to prepare a Waste Management Plan to show waste diversion measures. Compliance with the City of San Diego's Construction and Demolition Debris Deposit Ordinance would also be mandatory and would require recycling at least 65 percent of all construction and demolition debris.

During construction and operation, future commercial development would be required to comply with applicable management and reduction statutes and regulations related to solid waste. Therefore, impacts would be less than significant.

Mitigation Measure(s)

PROJECT LEVEL – WETLAND MITIGATION BANK

No mitigation is required.

PROGRAM LEVEL – PARCELS A, B, AND C PORT MASTER PLAN AMENDMENT

No mitigation is required.

Significance after Mitigation

Impacts from the proposed project would be less than significant.

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4 Cumulative Impacts

4.1 Overview

CEQA requires an EIR to include an evaluation of a project's contribution to cumulative impacts. Cumulative impacts are the project's impacts combined with the impacts of the related past, present, and reasonably foreseeable future projects. CEQA Guidelines (Section 15355) define a cumulative impact as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA Guidelines Section 15130(a)(1) further states that "an EIR should not discuss impacts which do not result in part from the project."

Section 15130(a) of the CEQA Guidelines provides that "[A]n EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable..." Cumulatively considerable, as defined in Section 15065(a)(3), "means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

This chapter provides an analysis of cumulative impacts associated with the proposed project, pursuant to the requirements of CEQA.

4.2 Cumulative Methodology

According to Section 15130(b) of the CEQA Guidelines, cumulative impact analysis may be conducted using one or two methods: the list method, which includes "a list of past, present, and probably future projects 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 in this EIR uses the list method.

Based on available information, 13 cumulative projects were identified for the analysis and are listed in Table 4-1 and depicted on Figure 4-1. The projects listed have had applications submitted or approved, are under construction, or have recently been completed. Generally, 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 heading below.

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Table 4-1. Cumulative Project List

Project Number	Name	Location	Description	Status
1	ORERP	Northern portion of Pond 20 and Pond 15, San Diego and Chula Vista	Restoration of 125 acres of coastal wetlands and upland habitats at the south end of San Diego Bay	ROD approved October 2018
2	Bernardo Shores	Palm Avenue and Rainbow Drive, Imperial Beach	Redevelopment of existing 10-acre, 124 space recreational vehicle park to a gated residential community of 190 townhomes, 4 detached single family, and amenities	Construction nearly complete, anticipated completion 2020
3	Blue Wave	Palm Avenue and 7th Street, Imperial Beach	Development of 73,447-square-foot multi-use facility, which includes a four-story, 47 room hotel and 51 residential units	Construction may begin in 2020
4	Imperial Beach Boulevard Enhancement Project	Imperial Beach Boulevard between Seacoast Drive and Georgia Street	Underground utility installation	Construction ongoing, anticipated completion 2020
5	City of San Diego Utilities Undergrounding Program - Residential Project Block 8R	City blocks between Palm Ave and Evergreen Avenue/Elder Avenue and between Georgia Street and Thermal Avenue	Overhead utility lines will be undergrounded	May 2020 to July 2022
6	City of San Diego Utilities Undergrounding Program - Residential Project Block 8R1	City blocks between Elder Avenue/Evergreen Avenue and Halo Street and between Georgia Street and Saturn Boulevard	Overhead utility lines will be undergrounded	April 2020 to October 2023

Table 4-1. Cumulative Project List

Project Number	Name	Location	Description	Status
7	City of San Diego Street Division – Block 8R Underground Utilities Program — Capital Improvements Program	City blocks between Dahlia Avenue and Elder Avenue and between Georgia Street and Thermal Avenue	Installation of street lights and curb ramps	April 2020 to October 2024
8	City of San Diego Street Division – ATT CAL06970F_R03	16th Street south of Palm Avenue	Excavate to install vault and conduit and connect to SC-WCF on existing SDG&E service pole P189867	August 2019 to August 2020
9	City of San Diego Street Division – COX 38747	Palm Avenue and Thermal Avenue	ROW permit to dig 10-foot dirt trench, install 3 foot by 5 foot pullbox-vault, and remove and replace 25 square feet of sidewalk panel to place 1-2-inch PVC conduit and cable	April 2017 to March 2019
10	City of San Diego Street Division – COX 42801	Palm Avenue between Thermal Avenue and 18th Street	ROW Permit to bore 568 lf, removal and replacement of 300 sq ft of sidewalk, 5 lf of dirt trench , installation of 5 new vaults conduit and cable	May 2018 to May 2020
11	City of San Diego Street Division – COX 42786	Palm Avenue and Thermal Avenue	ROW Permit to Bore 70 for, removal and replacement of 100 square feet of sidewalk, one 3 by 3 foot bore pit for the installation of 2 vaults cable and conduit	May 2018 to May 2020
12	Chula Vista Bayfront Projects	Chula Vista Bayfront	Master Plan encompasses 556 acres of land and water area along the Chula Vista Bayfront	RV park and bicycle path under construction, Convention Center construction anticipated for 2021-2023, park construction completion in 2023.



Table 4-1. Cumulative Project List

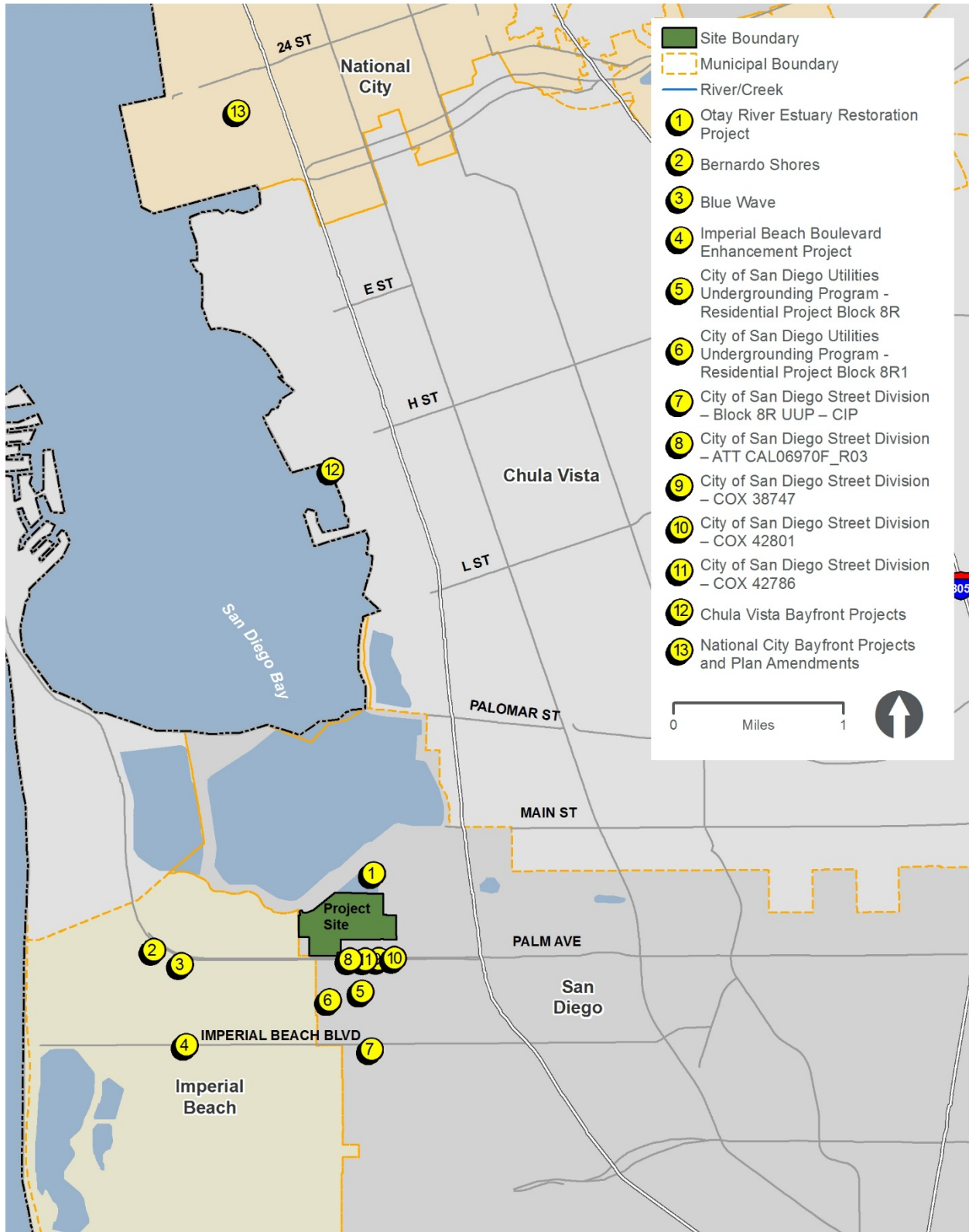
Project Number	Name	Location	Description	Status
13	National City Bayfront Projects and Plan Amendments	Pier 32 Marina, Bay Marina Drive, and National City Marine Terminal, National City	Construction and operation of recreational vehicle park, hotels, expanded marina, rail connector track and storage track, Segment 5 of the Bayshore Bikeway, and associated road closures	NOP published December 2018.

Notes:

NOP=Notice of Preparation; ORERP=Otay River Estuary Restoration Project; ROD=Record of Decision; ROW=right-of-way; SDG&E=San Diego Gas and Electric

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Figure 4-1. Cumulative Project Locations



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4.3 Cumulative Impact Analysis

There are several steps involved in analyzing cumulative impacts. The initial steps involve analyzing direct and indirect impacts, followed by the application of those results to cumulative impacts. These steps are generally outlined below:

- Establish the geographic scope for the analysis and determine the appropriate scale for analysis (i.e., localized and/or regional)
- List the thresholds of significance that are relevant to the resource issue areas
- Identify the impacts associated with the project; if there are no direct or indirect impacts of the project on a resource area, then the project would not contribute to a cumulative impact on that particular resource, and no further cumulative analysis for that resource is required
- Identify other actions affecting the resource issue areas of concern. This includes consideration of past, present, and probable future related projects
- Determine the magnitude and significance of cumulative impacts. Significance determinations are based on the methodology and thresholds of significance relevant to each resource issue area as presented in Sections 3.1 through 3.15.
- For cumulative impacts that are considered significant, identify the project's incremental contribution and determine if it is cumulatively considerable
- Identify potential mitigation measures for potential cumulative impacts. Potential mitigation measures could include measures that would avoid, minimize, or mitigate cumulative impacts as well as direct and indirect project-related impacts

The following section discusses the potential for the project to result in cumulatively considerable impacts together with the related projects and regional development (as provided in Table 4-1) for each of the resource issue areas evaluated in Chapter 3.0, Environmental Analysis. As discussed in the IS and Environmental Checklist (Appendix A), several resource issue areas were determined to have no direct or indirect impacts from project implementation, including agriculture and forestry resources, mineral resources, population and housing, and wildfire; therefore, these discipline areas are not discussed below. Additionally, within each resource area, specific threshold topics were determined to have no direct or indirect impacts either in the IS and Environmental Checklist or in Chapter 3.0, Environmental Analysis. Those topics are also not discussed below.

4.3.1 Aesthetics

The geographic scope of analysis for cumulative aesthetic impacts is the same study area established in Section 3.1, Aesthetics. The study area for aesthetic resources includes the project site and adjacent land uses where there are public and private views. The project site is visible from public roadways, surrounding residences, and recreationists. Because views from residences are private (i.e., not public vantage points) and only afforded to those persons residing on a particular parcel, the views of residents are not considered sensitive for the purposes of this analysis.

A cumulatively considerable aesthetic impact would result if the project would contribute to a significant cumulative impact related to a substantial and adverse change on a scenic vista or a cumulative view blockage that would affect the overall scenic quality of a resource or result in the addition of a substantial cumulative amount of light and/or glare.

Cumulative Effect

There is one project proposed within the study area: the ORERP wetland restoration project. This project also proposes to create tidal wetland habitat that would enhance the visual quality of the study area. City of San Diego utility or street division projects in the area would either not introduce sources of light or glare or are not within the same viewshed as the proposed project. There are no present or reasonably foreseeable future development projects within the project site's cumulative geographic scope that would result in an adverse change to the overall character of the area or a 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.

Project Contribution

As discussed in Section 3.1, Aesthetics, the wetland mitigation bank would result in improved visual character of the project site. The wetland mitigation bank would complement surrounding land uses by expanding valuable wetland habitat adjacent to the San Diego Bay NWR, providing essential wetland functions and services for adjacent communities, including storm surge and flood protection and stormwater buffering. The vegetation would act as attractors for local wildlife, and the overall wetland establishment and enhancement would increase other values, including improved water quality. Additional value enhancements include creating habitat to support spawning and breeding for native fish and birds; this would contribute to the local bird-watching and coastal-fishing industries, as well as providing habitat to support diverse fish populations and community assemblages within San Diego Bay and across coastal Southern California.

As discussed in Section 3.1, Aesthetics, future commercial development would not result in impacts on scenic vistas or highways or substantial damage to a scenic resource. Future commercial development could potentially introduce a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Additionally, during construction temporary overnight security lights, if needed, would introduce a new source of nighttime lighting. However, MM AES-1 and MM AES-2 require incorporation of nonreflective building materials in the design of commercial development and any nighttime security lighting be shielded downward.

Therefore, the proposed project's contribution to cumulative aesthetic impacts would not be cumulatively considerable.

4.3.2 Air Quality

The geographic scope of analysis for cumulative air quality impacts is the same study area identified in Section 3.2, Air Quality, the affected air basin, SDAB. 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.

A significant cumulative impact to air quality would result if the project, in conjunction with past, present, and reasonably foreseeable future projects, would contribute to a local violation of air quality standards, would impede regional attainment of air quality standards, or subject surrounding areas to objectionable odors.



Cumulative Effect

Past and present projects within the SDAB have involved the emissions of O₃ precursors (ROGs or VOCs and NO_x), PM₁₀, and PM_{2.5}, resulting in nonattainment status for 8-hour O₃ under NAAQS and nonattainment status for O₃, PM₁₀, and PM_{2.5} under CAAQS. Therefore, the emissions of concern within the SDAB are O₃ precursors (ROG and NO_x), PM₁₀, and PM_{2.5}.

Reasonably foreseeable projects that could contribute cumulative impacts on localized air quality conditions are generally those that include construction activities which result in fugitive dust, emissions from construction vehicles and equipment, and any chemicals used during construction. Projects in the cumulative study area with anticipated construction schedules that have the potential to overlap with construction of the wetland mitigation bank or future commercial development include: #1 ORERP, #3 Blue Wave, various City of San Diego utility and street division projects, #12 Chula Vista Bayfront Project, and #13 National City Bayfront Projects.

Because past and present projects have resulted in the current nonattainment status for O₃, 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 (O₃ precursors, PM₁₀, and PM_{2.5}) and the exposure of sensitive receptors to substantial pollutant concentrations would be considered cumulatively significant.

Project Contribution

Air pollution is essentially a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SDAPCD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. As described in Section 3.2, Air Quality, both the project-level and program-level project components would result in a less than significant impact for short-term construction and long-term operations. Therefore, the proposed project's contribution to cumulative air quality impacts would not be cumulatively considerable.

4.3.3 Biological Resources

The geographic scope of analysis for cumulative biological resources impacts includes the study area established in Section 3.3, Biological Resources, as well as the surrounding area that encompasses the cumulative projects identified in Table 4-1.

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.

Cumulative Effect

Past and present projects have transformed the South San Diego Bay area into a developed and urban area. Sensitive and native habitat remain around the San Diego Bay and in open space preserved in the area. Cumulative projects in the project area and in South San Diego Bay have the potential to degrade biological resources. The cumulative projects identified in Table 4-1 include several utility projects, several development projects, and a wetland restoration project. The utility projects are all in previously disturbed areas and have no potential to remove sensitive habitat. The development projects not on District tidelands (#2 Bernardo Shores and #3 Blue Wave) were

determined to have no impacts, or less than significant impacts, on biological resources because they were redevelopment projects on previously disturbed land. The two projects on District tidelands, #12 Chula Vista Bayfront Projects and #13 National City Bayfront Projects and Plan Amendments, would result in potential significant impacts on special status plant and wildlife species and jurisdictional wetland resources. The ORERP wetland restoration project in the northern portion of Pond 20 is immediately adjacent to the proposed project; therefore, the species and habitats impacted by both projects would be similar. These projects have identified mitigation measures to reduce impacts to less than significant.

Project Contribution

The creation of the wetland mitigation bank would result in potential impacts on special status plant and wildlife species and jurisdictional wetland resources. The majority of impacts would be temporary because the project would result in a net gain of higher quality habitat. As discussed in Section 3.3, Biological Resources, MM BR-1 through MM BR-9 would be implemented to reduce potential significant impacts to less than significant.

Similar to the wetland mitigation bank, future commercial development would result in potential impacts on special status plant and wildlife species and jurisdictional wetlands. As discussed in Section 3.3, Biological Resources, MM BR-1, MM BR-2, MM BR-3, MM BR-4, MM BR-5, MM BR-7, and MM BR-9 would be implemented to reduce potential significant impacts to less than significant.

When combined with the cumulative projects listed in Table 4-1, which include mitigation measures to reduce impacts to less than significant, cumulative impacts would be less than significant, and the proposed project's contribution to cumulative impacts would not be cumulatively considerable.

4.3.4 Cultural Resources

The geographic scope of analysis for cumulative cultural resource impacts depends of the type of resource, but generally includes the area of direct impact.

A significant cumulative impact on cultural resources would result if the proposed project would contribute to cumulative impacts on historical resources or archaeological resources.

Cumulative Effect

Past projects within the geographic scope have resulted in urban development in the project vicinity. As discussed in Section 3.4, Cultural Resources, there are three historic or archeological resources within the Area of Direct Impact. The ORERP wetland restoration project (#1 in Figure 4-1) proposes to restore the northern portion of Pond 20, and therefore, would also cause a substantial adverse change in the significance for the WSC Salt Works District. The USFWS entered into a Memorandum of Agreement with the SHPO that requires HALS documentation and other measures to document the site within 1 year of the commencement of project excavation. Upon implementation of MMs identified in the ORERP EIS, impacts on this resource would be less than significant.

Archeological site CA-SDI-19712 was identified as a small prehistoric artifact scatter in the ORERP EIS. The resources found in the northern portion of Pond 20, including four human bone fragments, were tested, and the remains were repatriated to the Kumeyaay Cultural Repatriation Committee. The ORERP EIS concluded that the assemblage of artifacts found lack contextual integrity and were not eligible for listing under NRHP. The ORERP wetland restoration project proposes to restore the northern portion of Pond 20 and the potential to find additional human remains would occur. The



ORERP EIS includes mitigation measures for monitoring during ground disturbance and procedures for unanticipated human remains. Upon implementation of mitigation measures identified in the ORERP EIS, impacts on this resource would be less than significant.

Therefore, past and reasonably foreseeable projects within the cumulative study area would not result in a cumulatively significant impact.

Project Contribution

As discussed in Section 3.4, Cultural Resources, the proposed project may cause a substantial adverse change in the significance of three historic or archeological resources.

Archaeological Site CA-SDI-4360 (P-37-004360)

Archeological site CA-SDI-4360 extends into the western portion of the project site, including Parcel A and a portion of the Bank Parcel, and numerous cultural materials were recorded on the surface in the project site. The site is eligible for listing in the NRHP under Criterion D, and the site is listed in the CRHR and constitutes a historical resource under CEQA. The recorded site boundary extends over 53 acres on a Pleistocene-age marine terrace at the south end of San Diego Bay. A substantial portion of site CA-SDI-4360 is covered by modern development.

No projects identified in Table 4-1 are located within the 53 acres of the recorded site boundary. As detailed in the Cultural Resource Report (Appendix F to this EIR), the site has been tested and mitigated through data recovery as development in the area progressed.

Western Salt Company Salt Works district (P-37-026582)

The WSC Salt Works District is eligible for listing in the NRHP under Criteria A and C, is listed in the CRHR, and is a City of San Diego Designated Historical Resource Site. Pond 20 is a contributing element of the WSC Salt Works District and encompasses the entirety of the Bank Site.

The creation of the wetland mitigation bank would preserve the overall shape of Pond 20 and portions of the levee would be preserved. These characteristics would continue to convey the significance of Pond 20 as a contributing element of WSC Salt Works District. However, alteration of a contributing element to an historic resource would mitigation. MM CR-2, which requires documentation of Pond 20 and development of education materials, would be implemented. The projects listed in Table 4-1 have identified mitigation measures to reduce impacts on this resource to less than significant, cumulative impacts would be less than significant, and the proposed project's contribution to cumulative impacts would not be cumulatively considerable.

Archaeological Site CA-SDI-19712 (P-37-031061)

Archeological site CA-SDI-19712 is a large prehistoric shellfish processing camp, possible habitation site, and artifact scatter that extends over approximately 67 acres in the eastern and central portions of the project site, including the Bank Site, Parcel B, and Parcel C. CA-SDI-19712 meets Criteria A and D of the NRHP and Criteria 1 and 4 of the CRHR. Substantial disturbance, mostly from construction of Pond 20 as an evaporation pond, is present throughout the CA-SDI-19712. It is unclear to what degree individual portions of the site were affected by construction of the salt pond and related activities.

While the proposed project and ORERP would impact archeological site CA-SDI-19712, the *Cultural Resources Report* (Appendix F to this EIR) concluded that the artifact scatter located in the northern

portion of Pond 20, outside of the District's jurisdiction, is a noncontributing resource, and the excavation results from the ORERP cultural resources report were only used to infer high probability of human remains being found at the proposed project site. When combined with the cumulative projects listed in Table 4-1, which include mitigation measures to reduce impacts to less than significant, cumulative impacts would be less than significant, and the proposed project's contribution to cumulative impacts would not be cumulatively considerable.

Conclusion

Therefore, impacts on historical or archaeological resources, when considered with other past, present, and reasonably foreseeable future projects, are not anticipated to contribute to a cumulative adverse impact on these resources.

4.3.5 Energy

The geographic scope of analysis for cumulative energy impacts includes the regional SDG&E service area. A cumulative energy consumption impact would occur if development within the geographic scope of the cumulative impact analysis for energy use combined would result in inefficient, wasteful, or unnecessary energy consumption throughout the region.

Cumulative Effect

The cumulative projects listed in Table 4-1 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 CPUC, California utilities, including SDG&E, are required to file long-term energy resources plans with the CPUC. SDG&E's most recent long-term procurement plan was filed in October 2014 and includes plans and strategies to meet the future energy demands of its customers, including a plan addressing the closure of the San Onofre Nuclear Generating Station.

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 Regional Energy Strategy Early Actions, including supporting alternative transportation to reduce transportation energy use, reducing GHG emission from energy use, and limiting water use to reduce indirect energy use for water transport. As such, it is possible that present and reasonably foreseeable future projects would not comply with all programs and policies designed to reduce energy demand. Therefore, impacts from past, present, and reasonably foreseeable future projects would be cumulatively significant.

Project Contribution

Construction activities for the wetland mitigation bank would consume electricity and fossil fuels. As discussed in Section 3.5, Energy, energy consumption during construction would be minimal and would cease upon completion of construction activities. The proposed mitigation bank would involve very minimal maintenance activities, as one vehicle would conduct monitoring of the project site once a month for a period of 5 years and then annually after performance standards have been met. The



proposed project's incremental contribution to cumulative impacts would be less than cumulatively significant.

Similar to the wetland mitigation bank, construction of future commercial development would consume electricity and fossil fuels. Energy consumption during construction would be minimal and would cease upon completion of construction activities.

Once operational, future commercial development would consume energy related to building energy use, including electricity and natural gas, indirect energy consumption associated with water use, and fuel consumption by delivery trucks. Future commercial development on Parcels A, B, and C would be required to incorporate energy efficiency design features that exceed 2019 Title 24 California Building Energy Efficiency Standards, per MM GHG-1 and MM GHG-2. MM TRAN-1 would require TDM measures be implemented. When combined with the cumulative projects listed in Table 4-1, which would also be required to be designed in compliance with applicable net zero building standards and renewable energy policies, cumulative impacts would be less than significant, and the proposed project's contribution to cumulative energy impacts would not be cumulatively considerable.

4.3.6 Geology and Soils

The geographic scope of cumulative geological resources is similar to the study area identified in Section 3.6, Geology and Soils. The scope varies depending on the geologic issue. The project site is not within an Earthquake Fault Zone, and there is no potential for landslides; therefore, these issues are not discussed further.

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, erosion, unstable soils, lateral spreading, subsidence, liquefaction, collapse, expansive soils, or the use or installation of septic tanks or alternative wastewater disposal systems.

Cumulative Effects

The San Diego Bay has experienced moderate earthquake activity, and the project site is located within an area that is susceptible to strong seismic ground shaking. Past, present, and reasonably foreseeable future projects identified in Table 4-1 have and would remove soils unsuitable for structure construction and replace them with soils that are consistent with city engineering regulations and grading requirements, as well as best practices.

Past and present development has also increased the presence of infrastructure, structural improvements, and number of people. This has in return placed the infrastructure and occupants in areas that are susceptible to fault rupture and seismic ground shaking that could result in damage to people and property. Development along the San Diego Bay also increases the potential for erosion to occur.

A number of the present and reasonably foreseeable future projects listed in Table 4-1 would also result in increased infrastructure, structures, and people on site in the cumulative geographic scope. None of these projects would exacerbate the potential for a fault, rupture, earthquake, or soil liquefaction given the requirements to grade and compact soils to local and state standards designed to prevent soil hazards from occurring. Additionally, the development projects that have a grading component would be required to comply with stormwater regulations (NPDES General Permit) and BMP guidelines to avoid erosion. The impacts of past, present, and reasonably foreseeable future

projects as they relate to fault rupture, seismic ground shaking, liquefaction and erosion would be less than cumulatively significant.

Project Contribution

As discussed in Section 3.6, Geology and Soils, the creation of the wetland mitigation bank would not have the potential to exacerbate strong seismic ground shaking, seismic-related ground failure, or liquefaction. The project would comply with regulations by preparing a SWPPP and implementing BMPs. The project would not exacerbate the potential for liquefaction and lateral spreading, subsidence, and collapse would be unlikely due to the results of the slope stability analysis. Construction of the wetland mitigation bank would not have the potential to exacerbate conditions that would result in expansive soil impacts. Construction of the wetland mitigation bank would have a low potential for direct impacts on paleontological resources because the maximum depth of excavation would be 10 feet NAVD88. The creation of the wetland mitigation bank would result in less than significant impacts for all thresholds.

As discussed in Section 3.6, Geology and Soils, no construction is proposed on Parcels A, B, and C at this time; however, a land use designation of commercial recreation, if applied, would allow for commercial development of these parcels. Any structures built would be required to comply with then-current seismic design and soil hazard provisions of the CBC. Commercial development would have a low potential for direct impacts on paleontological resources; however, if pile driving, grading, or excavation is required at depths that would reach Old Paralac Deposits, then MM GEO-1 would be required to reduce impacts on paleontological resources.

The cumulative projects listed in Table 4-1, would not 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. Additionally, these project would be subject to the same regulations that require compliance with current seismic design and soil hazard provision of the CBC, as well as preparation of a SWPPP and implementation of BMPs. When combined with the cumulative projects listed in Table 4-1, which would also be required to comply with regulations, prepare a SWPPP, and implement BMPs, cumulative impacts would be less than significant, and the proposed project's contribution to cumulative impacts would not be cumulatively considerable.

4.3.7 Greenhouse Gas Emissions

GHG emissions and global climate change represent cumulative impacts; therefore, GHG emissions contribute cumulatively to the significant adverse environmental impacts of global climate change. The analysis in Section 3.7, Greenhouse Gas Emissions, is inherently a cumulative analysis. Therefore, a summary of the discussion is included below.

Project Contribution

As discussed in Section 3.7, Greenhouse Gas Emissions, construction and operation of the wetland mitigation bank would result in CO₂e levels below the 900 MT of CO₂e per year screening threshold established by the county. The wetland mitigation bank would not have an impact on the District's abilities to achieve GHG emissions reduction goals identified in the District CAP and would not conflict with the GHG reduction goals of the state.

At this time, no construction is proposed on Parcels A, B, or C; however, a land use designation of commercial recreation, if applied, would allow for future commercial development of these parcels.



The impact analysis evaluates a reasonable-case development scenario for Parcels A, B, and C (which is a future commercial land use) and relies on the reasonable development assumptions identified in Section 2, Project Description. As discussed in Section 3.7, Greenhouse Gas Emissions, construction activities would generate GHG emissions from equipment use and transportation of workers travelling to and from the project site; however, the amount of GHG emissions that would be generated is not anticipated to be substantial due to the temporary nature of construction. Operation of the future commercial development would result in annual emissions of 2,880.4 MT of CO₂e per year.

Combined, construction and operational emissions for the wetland mitigation bank and future commercial development would result in 2997.6 MT of CO₂e per year, which exceeds the 900 MT of CO₂e per year screening threshold established by the county. Therefore, the proposed project would have potentially significant individual impact for GHG emissions. Additionally, future commercial development has the potential to conflict with the District CAP and the GHG reduction goals of the state. This is considered a significant impact, and as described above, GHG emissions are essentially a cumulative analysis. Therefore, the project's contribution, when combined with the cumulative projects listed in Table 4-1, is cumulatively considerable.

MM GHG-1 would require buildings be designed with GHG emission reducing measures, which could reduce energy sources, waste sources, and water usage emissions. MM GHG-2 would require future commercial developers to design buildings with GHG reducing measures. Because no development is proposed at this time, specific measures cannot be developed at this time. Therefore, the amount of CO₂e per year that could be reduced by implementing MM GHG-1 and MM GHG-2 is not quantifiable. Additionally, MM TRAN-1 would require TDM measures be implemented, which would promote ride sharing and vanpooling and provide subsidies for transit passes to reduce worker trips and parking demand. MM TRAN-1 would reduce the mobile sources operational emissions by 2.6 percent, or 39.3 MT of CO₂e per year. Because reductions from MM GHG-1 and MM GHG-2 cannot be quantified, and MM TRAN-1 would only reduce emissions by 39.3 MT of CO₂e per year, even after mitigation, the proposed project could result in a cumulatively considerable impact related to GHG emissions because it may impede achievement of long-term state reduction targets.

4.3.8 Hazards and Hazardous Materials

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.

A significant cumulative impact on hazards and hazardous materials would result if the proposed project were to contribute to impacts related to the routine transport, use, or disposal of hazardous materials; the release or emission of hazardous materials; safety hazards related to airport operations; or interference with an adopted emergency response plan when evaluated within the context of past, present, and reasonably foreseeable future projects.

Cumulative Effects

There are seven off-site contamination sites listed on the Hazardous Materials Databases, as listed in Table 3.8-1 of Section 3.8, Hazards and Hazardous Materials. Five sites are classified as case closed,

one is classified as no further action needed, and one is listed as no releases reported. Evidence does not suggest that contamination has resulted in a cumulative condition to which other projects are contributing. None of the sites are currently under assessment; impacts from past cumulative projects are not cumulatively significant.

Present and reasonably foreseeable future projects within the cumulative study could disrupt or result in the exposure of hazardous materials that are typically used during construction activities; however, the risk for exposure to hazardous materials would be analyzed during project development. For projects having the potential to disrupt or result in the exposure of hazardous materials, compliance with existing laws and regulations or 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 3.8, Hazards and Hazardous Materials, which would reduce potential releases of hazardous materials into the environment. Because all cumulative projects listed in Table 4-1 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, cumulative effects related to hazardous materials from past, present, and reasonably foreseeable future projects would be less than cumulatively significant.

Project Contribution

Construction of the wetland mitigation bank and construction and operation of future commercial development may involve the use of hazardous materials and wastes, including the transport, storage, and disposal of commercially available hazardous materials such as gasoline, brake fluids, and coolants. Additionally, excavated contaminated soil may be hauled and disposed of at an off-site landfill. Impacts from the proposed project would be negligible because the storage, use, disposal, and transport of hazardous materials are extensively regulated by federal, state, and local laws, regulations, and policies. In this context, it is reasonably foreseeable that the proposed project and other cumulative projects listed in Table 4-1 would implement and comply with these existing hazardous materials laws, regulations, and policies. The proposed project's incremental contribution to cumulative impacts associated with the storage, use disposal, and transport of hazardous materials and contaminated soil would not be cumulatively considerable.

As discussed in Section 3.8, Hazards and Hazardous Materials, construction of the wetland mitigation bank would require the excavation of contaminated soils. Similarly, ground disturbing activities on Parcels A, B, and C have the potential to encounter hazardous waste or materials. Any hazardous wastes or materials encountered through ground-disturbing activities would be handled and disposed of in accordance with federal, state, and local regulatory requirements. Further, with implementation of MM HAZ-1 and MM HAZ-2, the proposed project's incremental contribution to cumulative impacts would not be cumulatively considerable.

Construction of the wetland mitigation bank would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan because no road closures are proposed, and the project site would be served by local fire stations. Future commercial development is anticipated to be in compliance with the County of San Diego Office of Emergency Services Operational Area Emergency Plan because the existing fire stations would have capacity to serve the project site and the project does not propose any characteristics that would interfere with the emergency plan. Additionally, the proposed project would not result in exposing people or structures to a significant risk of loss, injury, or death involving wildland fires, including those adjacent to urbanized areas and where residences are intermixed.



When combined with the cumulative projects listed in Table 4-1, which would also implement and comply with existing hazardous materials laws, regulations, and policies, cumulative impacts would be less than significant, and the proposed project's contribution to cumulative impacts would not be cumulatively considerable.

4.3.9 Hydrology and Water Quality

The geographic scope of analysis for cumulative impacts on hydrology and water quality includes the Otay HU, which includes most of the projects listed in Table 4-1.

A significant cumulative impact on hydrology and water quality would result if the proposed project were to contribute to impacts related to water quality standard violations, waste discharge requirements, or degradation of surface or groundwater quality; alterations to drainage patterns leading to erosion or flooding; increased runoff in excess of available capacity; flood hazard or tsunami zones risk release of pollutants due to project inundation; or conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Cumulative Effect

Past projects have contributed pollutants to San Diego Bay, as evidenced by the CWA Section 303(d) List of Water Quality Limited Segments Requiring TDMLs. Present 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 present 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.

The development projects and the wetland restoration projects listed in Table 4-1 would involve at least 1 acre of grading. During construction of these projects, they would be required to comply with the NPDES Construction General Permit, which requires preparation of a SWPPP and implementation of BMPs to ensure runoff from individual projects meet current water quality standards.

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 BMP Design Manual (for projects within the District's jurisdiction), and applicable city stormwater management ordinances.

However, because San Diego Bay is currently an impaired water body and has been for some time, the cumulative effect of past, present, and reasonably foreseeable future projects would have the potential to result in a cumulatively significant water quality impact.

Otay River Estuary Restoration Project

The wetland restoration project (#1 ORERP) would result in changes to the floodplain due to the lowering of the northern portion of Pond 20 to support intertidal wetland habitat. Several studies were prepared to analyze the project's direct and indirect impacts on hydrology and water quality, including a tidal hydraulics analysis, a fluvial hydraulic study, and a sensitivity analysis of potential dichlorodiphenyltrichloroethane (commonly known as the insecticide DDT [dichlorodiphenyltrichloroethane]) deposition.

The studies included modeling of flow patterns and water elevations during a 100-year storm event. The modeling analyzed flood impacts onsite, on the Bayshore Bikeway, and in the City of Imperial

Beach. The results of the modeling indicate flooding could occur at the Bayside Park area via an existing storm drain constructed under the Bayshore Bikeway to the south of Pond 23. However, the project would raise the levee between Ponds 22 and 23 by 2 feet, which would divert flood flows away from the Bayside Park area and toward the northern salt ponds. The model results indicate with the raising of the levee the flood conditions at the park would be lower than under existing conditions.

Hydrodynamic modeling was also used to predict potential impacts related to erosion, or scour, as a result of implementation of the project. The model results indicate flood velocities in the Otay River channel along the Bayshore Bikeway adjacent to Ponds 48, 20, and 22 would be higher with the project compared to existing conditions. The project includes a project feature to install channel protection (including riprap and fill) along this portion of the bikeway if flood velocities exceed 0.6 feet/second. Additionally, the project includes revegetation of the area east of Nestor Creek to increase friction to slow down the flow. The EIS concludes that by increasing the height of the levee between Ponds 22 and 23, installing channel protection along the Bayshore Bikeway, and revegetation of the area east of Nestor Creek, impacts associated with flooding and erosion would be less than significant.

Project Contribution

Water Quality and Risk Release of Pollutants

Construction of the proposed project would involve soil disturbance from activities such as grading, excavation, dredging of the tidal channel, material stockpiling, and compaction. The proposed project would comply with applicable regulations regarding water quality by obtaining coverage under the NPDES General Permit and preparing a SWPPP. The SWPPP would include construction BMPs that comply with the District's JRMP and the RWQCB Order No. R9-2015-0013. Additionally, the project would comply with the CWA by obtaining Section 404 and Section 401 permits. For future commercial development, the project proponents would prepare a project-specific SWQMP for approval by the District that accurately describes how the project would meet source control site design and pollutant control BMP requirements.

During construction, fueling, and servicing of construction equipment may involve the use of hazardous materials and wastes, including the transport, storage, and disposal of commercially available hazardous materials such as gasoline, brake fluids, and coolants. Additionally, excavated contaminated soil may be stockpiled on site. The handling of such materials would occur during short-term construction activities and would be subject to federal, state, and local health and safety requirements, as described under Section 3.8, Hazards and Hazardous Materials, as well as the project SWPPP.

The proposed project's incremental contribution to cumulative impacts associated with water quality would not be cumulatively considerable.

Erosion

As discussed in Section 3.9, Hydrology and Water Quality, the project would alter the existing drainage pattern of the area by altering the tidal forces in the area. As part of the project, the overall elevation of the site would be lowered and reconnected to tidal flow from the San Diego Bay via excavated channels. This would result in erosion, or scour, of the Otay River channel. While scour of this channel is anticipated and necessary to create adequate tidal influence into the proposed wetlands, a geomorphic scour analysis was conducted to determine how the project could impact the Bayshore Bikeway Bridge that crosses the Otay River near the breach location (Appendix K).

CONTRACTION, ABUTMENT, AND PIER SCOUR

As discussed in Section 3.9, Hydrology and Water Quality, during a 100-year flood event, the Otay River channel is expected to scour upstream and downstream of the Bayshore Bikeway Bridge. However, the expected difference in erosion between project and existing conditions is on the order of 0.2 feet upstream of the Bayshore Bikeway Bridge and 0.1 foot-downstream. This 0.2-foot and 0.1-foot increase in the amount of erosion would be under worst-case scour conditions and is within the range of expected scour under existing conditions. Further, the locations of potential erosion are in the channel upstream and downstream of the Bayshore Bikeway Bridge and would not impact the bridge structure. Impacts would be less than significant. Additionally, modeling concluded that no contraction (i.e., no erosion at the bed of the bridge) is expected at the Bayshore Bikeway Bridge under existing or project conditions. No increase in potential pier scour (i.e., no increase in sediment around the bridge substructure) is expected at the Bayshore Bikeway Bridge for the project conditions compared with the existing conditions.

The *Hydrodynamic Modeling Report* also analyzed long-term scour (Appendix K). While the modeling indicates the channel depth would likely increase, which would prevent long-term scour at the bridge, it is unknown if there are hardened materials in the channel bottom that would limit the channel from increasing in depth. If the channel is not able to increase in depth, then the channel could widen enough to affect the structural integrity of the bridge. MM HY-1 would be implemented as part of the proposed project. Implementation of MM HY-1 would require a bridge and channel scour monitoring and maintenance program to identify scour impacts that could compromise the integrity of the bridge and identify appropriate maintenance actions. Implementation of MM HY-1 would reduce any potential cumulatively significant impacts to level less than significant. As discussed above, ORERP may also result in erosion of the Otay River channel. ORERP includes a project feature to install channel protection if velocities increase more than 0.6 feet/second that would result in widening of the channel. ORERP also includes revegetation of the area east of Nestor Creek which would slow the flood flow. The proposed project's incremental contribution to cumulative impacts associated with erosion would not be cumulatively considerable.

Flooding

Creation of the wetland mitigation bank would alter the course of a stream or river by reconnecting Pond 20 to tidal influence. As detailed in the *Hydrodynamic Modeling Report* (Appendix K), 100-year and 10-year flood dynamics were modeled under current sea level conditions. The 100-year storm event was modeled as the worst case scenario and has a 1% chance of occurring on a yearly basis. The 10-year storm event was analyzed to understand the effect of the project during more frequent storm events.

100-YEAR STORM EVENT

As discussed in Section 3.9, Hydrology and Water Quality, model results indicate the flood under project conditions progresses in a similar manner to existing conditions. Flooding offsite would occur under existing conditions. Notable locations of flooding include the Bayside Palms Mobilehome Village, the Imperial Sands Mobile Park, and Bayside Park near Bayside Elementary School. The only location with an increase in maximum water levels is in Ponds 10 and 10A and would increase by 0.1 foot under project conditions. However, this slight increase is within the capacity of the ponds and would not affect the surrounding area. The maximum water levels at Bayside Park are similar for existing and project conditions. Existing conditions result in a slightly greater flood extent than project conditions because the flood waters peak a little bit sooner than under project conditions and stay

high. ORERP identified flooding at Bayside Park as well; however the project proposes to raise the levee between Ponds 22 and 23 to reduce flooding at this location. The proposed project's incremental contribution to cumulative impacts associated with flooding during a 100-year storm event would not be cumulatively considerable.

10-YEAR STORM EVENT

During the 10-year storm event under existing and project conditions, model results show that water would overtop the banks of the Otay River channel, and inundate the open space surrounding the channel. Flood waters from Nestor Creek would inundate the properties along river upstream of the site with no differences in the flood extent between scenarios. As the flood waters from Nestor Creek and Otay River meet, the water levels would be low enough to be contained within the Otay River channel all the way to the bay (e.g., no pond berms are overtopped by storm waters). Flood waters during the 10-year storm event would not overtop into Bayside Park. Some water would flow through the Bayside Park culvert and is stored within the marsh along the Bayshore Bikeway; inundation would not extend to the park or Bayside Elementary School. The proposed project's incremental contribution to cumulative impacts associated with flooding during a 10-year storm event would not be cumulatively considerable.

Redirect Flood Flows

As discussed in Section 3.9, Hydrology and Water Quality, during the 100-year storm event, the proposed project would result in slightly higher water levels. Portions of the project site are within a FEMA Regulatory Floodway and there is a zero-rise requirement for any encroachment within a FEMA Regulatory Floodway. The District would request a CLOMR from FEMA. If approved, the CLOMR would reflect an official revisions/amendment to an effective FIRM.

Conclusion

The proposed project's incremental contribution to significant cumulative hydrology and water quality impacts from past, present, and reasonably foreseeable future projects would not result in a cumulatively significant impact.

4.3.10 Land Use and Planning

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 and the projects identified in Table 4-1. A significant cumulative impact would result if the project contributes to inconsistencies with the applicable land use plans that have resulted in, or would result in, significant physical impacts.

Cumulative Effect

Past and future projects have been, and continue to be, subject to land use consistency review by either the District or the city in which the project is located, depending on which jurisdiction the project falls under. Projects that are not consistent with the existing land use of the site must obtain either a PMPA through the District or a land use plan amendment, rezone, or development amendment through the applicable city. Projects that would require a PMPA or land use amendment would require discretionary action, and therefore, would require environmental and consistency review. Significant physical impacts, if any, resulting from cumulative projects would be studied and mitigated to the extent feasible in accordance with CEQA. Projects within the District's jurisdiction would also be required to be consistent with the District's PMPU guiding principles, which are described in Section 3.10, Land



Use and Planning. As such, past, present, and reasonably foreseeable projects would not result in a significant cumulative impact on land use and planning.

Project Contribution

As discussed in Section 3.10, Land Use and Planning, the proposed project would be consistent with the PMP, PMPU, CCA, California State Lands Commission Strategic Plan, and the San Diego Bay INRMP. Therefore, impacts would not be cumulatively considerable.

4.3.11 Noise and Vibration

The geographic scope of analysis for cumulative noise and vibration impacts is the same as discussed in Section 3.11, Noise. For noise sources such as construction activity and vehicle traffic, the region of influence is typically less than 0.5 mile from the noise source. For vibration sources such as construction activity and vehicle traffic, the region of influence is typically less than 1,000 feet from the vibration source.

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, ground-borne vibration, or ambient noise levels when evaluated within the context of past, present, and reasonably foreseeable future projects.

Cumulative Effect

The cumulative projects identified in Table 4-1 include several utility projects, several development projects, and a wetland restoration project. The utility projects are shielded by intervening buildings and would not generate cumulative impacts in the immediate vicinity of the proposed project site. The development projects are located outside the geographic scope of analysis for cumulative noise and vibration impacts. The wetland restoration project (#1 ORERP) is located immediately north of the Bank Parcel. Construction of ORERP would require similar construction equipment to the wetland mitigation bank and would not require pile driving. The ORERP EIS concluded construction noise would not exceed 75 dBA at the nearest sensitive receptor; however, construction BMPs are included in a mitigation measure and would result in less than significant impacts. Therefore, past and reasonably foreseeable projects within the cumulative study area would not result in a cumulatively significant impact.

Project Contribution

As discussed in Section 3.11, Noise, construction of the wetland mitigation bank and future commercial development would not overlap. Construction of the proposed project would result in a temporary increase in noise levels. However, for the wetland mitigation bank these increases are anticipated to be less than significant because the average distance from the construction activities to sensitive land uses is approximately 250 feet, and noise levels at 250 feet would not exceed the City of San Diego's 75 dBA L_{eq} construction noise threshold. For future commercial development, construction equipment and distances to sensitive receptors is estimated because no development is proposed at this time. Construction of future commercial development may occur an average of 100 feet from sensitive receptors, and pile driving may be required. Therefore, noise levels would exceed the City of San Diego's 75 dBA L_{eq} construction noise threshold. Construction activities would generate temporary ground-borne vibration. The residential structures to the south of the project site would be located approximately 50 feet from project construction areas that would require the use of large bulldozers.

Distance attenuation would reduce the construction vibration levels from the creation of the wetland mitigation bank to 0.03 inch/second. This level is much lower than the 0.12 inch/second threshold for buildings extremely susceptible to vibration damage (the most rigorous standard). In addition, this level is below the distinctly perceptible level for vibration annoyance. The temporary ground-borne vibration impacts associated with construction of future commercial development would be above the distinctly perceptible level for vibration annoyance. Therefore, noise and ground-borne vibration impacts would be significant.

Construction activity is prohibited between the hours of 7:00 p.m. and 7:00 a.m.; on legal holidays, as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday; or on Sundays. Construction activity during these times would create disturbing, excessive, or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator, in conformance with San Diego Municipal Code Section 59.5.0404. Compliance with the City of San Diego's Noise Ordinance would be required for cumulative projects.

Operation of future commercial development would result in an increase in traffic noise and on-site stationary noise. A doubling of traffic on a street is required to increase the traffic noise by 3 dBA, which is considered to be the level at which mitigation would be required. The potential developments within Parcels A, B, and C would not generate enough traffic to double existing volumes. On-site stationary noise could include building heating, ventilation, and air conditioning systems; parking lot usage, including door closing/slamming, horn honking, and car alarms; and on-site truck movements. Any proposed future commercial developments would be designed to comply with Noise Ordinance 59.5.0401 of the City of San Diego's Municipal Code, which requires that all stationary noise sources meet specific daytime and nighttime noise levels to ensure no significant noise impacts would occur on the adjacent residential developments.

As discussed above, a cumulatively significant noise impact does not exist. The southern boundary of ORERP is more than 700 feet from the sensitive receptors identified for the proposed project. Construction noise and vibration attenuates with increased distance from the noise sources and construction at a rate of approximately 6 dBA per doubling of distance. Therefore, the proposed project's incremental contribution to cumulative impacts would not be cumulatively considerable.

4.3.12 Public Services

The geographic scope of analysis for cumulative public service impacts includes the general service areas of the public service providers. As discussed in the IS and Environmental Checklist (Appendix A), all thresholds would result in a less than significant impact or no impact for the project-level wetland mitigation bank, and only fire protection was evaluated for the program-level components. Therefore, only a program-level discussion of fire protection is included below.

Cumulative impacts on public services could result when past, present, and reasonably foreseeable future projects combine to increase demand on public services 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.

Cumulative Effect

The cumulative projects identified in Table 4-1 include several utility projects, several development projects, and a wetland restoration project. The utility projects and the wetland restoration project would not increase demand on fire protection services because the projects would not result new



residential or nonresidential developments that would require protection. Of the development projects, only #2 Bernardo Shores and #3 Blue Wave are within the same general service area of the proposed project. These projects are required to pay development impact fees to fund expansion of public facilities, such as fire stations, in order to maintain existing LOS. Additionally, these projects were accounted for in the City of Imperial Beach’s General Plan and Local Coastal Plan. Therefore, past and reasonably foreseeable projects within the cumulative study area would not result in a cumulatively significant impact.

Project Contribution

As discussed in Section 3.12, Public Services, the proposed project would not result in increased demand that would result in the construction of additional facilities. When combined with the cumulative projects listed in Table 4-1, the proposed project’s incremental contribution to cumulative impacts would not be cumulatively considerable.

4.3.13 Transportation

Based on the changes to the State CEQA Guidelines initiated by the passage of SB 743, a project’s impact on transportation is measured by the amount of VMT that would be generated. By its nature, VMT is inherently a cumulative issue, as any single project is not likely to be large enough to prevent the region or state from meeting its VMT reduction targets, which correlate to the state’s GHG reduction targets. Rather, a project’s individual VMT contributes to cumulative VMT impacts. Therefore, the methodology for determining a project’s cumulative VMT impact is the same as that for direct VMT impacts as described in Section 3.13, Transportation. The geographic scope of analysis for cumulative VMT impacts includes the San Diego region. The geographic scope of cumulative analysis for all other issues includes all past, present, and probable future projects identified within and near the project site that have affected, or would have the potential to affect, the same transit, roadway, bicycle, and pedestrian facilities as the proposed project.

Cumulative impacts on transportation could also occur if the proposed project, when combined with past, present, and probable future projects, would conflict with applicable programs, plans, ordinances or policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Additionally, cumulative impacts could occur if the proposed project, when combined with past, present, and probable future projects, would result in substantial increases in hazards due to geometric design features or incompatible uses, or result in inadequate emergency access.

Cumulative Effect

Vehicle Miles Travels

The generation of VMT, which is a function of the number and distance of vehicle trips, is largely a cumulative impact by nature. VMT from past, present, and probable future projects have contributed to, and continue to contribute to, cumulative VMT impacts, as well as similarly cumulative secondary physical environmental effects such as increased GHG emissions. The VMT analysis was completed using the SANDAG Series 13 ABM, a travel demand forecasting model that incorporates census data and travel surveys to inform the algorithms of the model’s projections. The Series 13 ABM has four forecast scenarios: 2012, 2020, 2035, and 2050. The SANDAG Series 13 ABM was customized by the District, the San Diego International Airport, and the City of San Diego to incorporate the land use and transportation network changes proposed within the area based on a series of recently adopted or ongoing planning efforts. These efforts include the PMPU, San Diego International Airport Master

Plan, Midway-Pacific Highway Community Plan Update, Mission Valley Community Plan Update, Barrio Logan Community Plan Update, and the Downtown Mobility Plan. This was a comprehensive effort by all jurisdictions to provide consistency between the ongoing planning efforts within the area by providing a single transportation forecast model to build off of.

Cumulative present and probable future projects would be required to comply with SB 743 during project-specific environmental review. Although compliance is required, it is not guaranteed each present and probable future project would be able to achieve the reduction thresholds used by each lead agency. Mitigation may reduce VMT for a project, but still may not reduce potential impacts to a less than significant level. Projects that cannot reach the VMT reduction goal of 15 percent below the regional average would contribute to increased VMT in the region, which would contribute to the prevention of the state and region reaching the established GHG reduction targets. Therefore, present and probable future projects in the region could result in a cumulatively significant VMT.

Geometric Design Features and Emergency Access

The cumulative projects identified in Table 4-1 include several utility projects, several development projects, and a wetland restoration project. The utility projects may involve temporary road detours or closures because the projects involve undergrounding utility lines or installation of curb ramps. The development projects #2 Bernardo Shores and #3 Blue Wave would not require road closures, and the other projects listed in Table 4-1 would either not result in impacts to the same transit, roadway, bicycle, or pedestrian facilities. The projects that would impact the same facilities would not result in a substantial increase in hazards due to geometric design and would ensure that safe alternative means of pedestrian, bicycle, and vehicle access is provided during any temporary closures. Additionally, these projects would ensure that adequate emergency access is provided during any temporary closures in accordance with applicable city or Caltrans requirements. Therefore, cumulative effects from past, present, and probable future projects would not be significant.

Project Contribution

As discussed in Section 3.13, Transportation, the construction and operation of the wetland mitigation bank would not conflict with a program, ordinance, or policy addressing the circulation system transit roadway, bicycle, or pedestrian facilities. Additionally, the wetland mitigation bank would not generate VMT because construction workers are not generating new VMT each day, only redistributing VMT. This redistribution is considered to be nominal and momentary.

Future commercial development on Parcels A, B, and C would require public access to each of these parcels. In order to achieve public access, the future commercial development project applicant would be required to apply for encroachment permits or ROW permits from the applicable city or agency.

As discussed above, VMT is inherently a cumulative issue and construction of full buildout of Parcels A, B, and C at 105,000 square feet would not be large enough of a project to prevent the region or state from meeting VMT reduction goals. Similar to the wetland mitigation bank, construction of future commercial development would not result in new VMT because construction workers VMT is not newly generated; instead, it is redistributed throughout the regional roadway network based on the different work sites in which workers travel to each day.

Operation of future commercial development would result in approximately 18,060 daily VMT generated. This is in conflict with the regional VMT goal of no increase in VMT. Because of the cumulative nature of VMT, this direct project VMT impact would also be considered a cumulative impact of the proposed project. Therefore, the proposed project's contribution to VMT impacts would



be cumulatively considerable. MM TRAN-1 includes all feasible measures identified based on the results of the Mobility Management VMT Reduction Calculator Tool. MM TRAN-1 would be implemented to reduce future commercial development VMT by requiring a mandatory employer commute program, employer carpool program, employer transit pass subsidy, and employer vanpool program. With implementation of MM TRAN-1 impacts would be cumulatively considerable and unavoidable after mitigation.

4.3.14 Tribal Cultural Resources

The geographic scope of analysis for TCRs is the same as discussed in Section 3.14, Tribal Cultural Resources.

Cumulative impacts on TCRs could result when past, present, and reasonably foreseeable future projects combine to cause a substantial adverse change in the significance of a TCR defined in PRC 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.

Cumulative Effect

As discussed under Section 4.3.14, Archeological site CA-SDI-19712 was identified as a small prehistoric artifact scatter in the ORERP EIS. The resources found in the northern portion of Pond 20, including four human bone fragments, were tested and the remains were repatriated to the Kumeyaay Cultural Repatriation Committee. The ORERP EIS concluded that the assemblage of artifacts found lack contextual integrity and were not eligible for listing under NRHP. The ORERP wetland restoration project proposes to restore the northern portion of Pond 20, and the potential to find additional human remains would occur. The ORERP EIS includes mitigation measures for monitoring during ground disturbance and procedures for unanticipated human remains. Upon implementation of mitigation measures identified in the ORERP EIS, impacts on this resource would be less than significant.

Project Contribution

The NAHC Sacred Lands File search identified no Native American cultural resources 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 TCRs were identified as the result of an AB 52 consultation process. Therefore, no significant cumulative impact to TCRs would occur.

4.3.15 Utilities and Service Systems

The geographic scope of analysis for cumulative utilities and service systems impacts includes the projects listed in Table 4-1, and the general service areas of the service providers.

Cumulative impacts on utilities and service systems may occur when projects combine to increase demand such that additional services must be provided or additional facilities constructed.

Cumulative Effect

As discussed in Section 3.15, Utilities and Service Systems, the project site is served by several existing utility providers. Wastewater is treated by PLWTP, water is provided by the City of San Diego PUD Water Branch, solid waste would be hauled to one of the active landfills in the City of San Diego,

and electricity and natural gas is provided by SDG&E. The utility projects listed in Table 4-1 would not result in demand on these services. Project #1 ORERP would also not result in an increase in demand on these services because the project involves wetlands restoration. The development projects would result in an increase in demand for the utility providers.

The PLWTP has a treatment capacity of 240 mgd and is anticipated to meet the projected needs of the service area. Impacts from past, present, and reasonably foreseeable future projects are not cumulatively significant.

The development projects listed in Table 4-1 include high-water use projects like hotels, restaurants, and residential uses. While the City of San Diego water demand is not anticipated to result in shortages (see Table 3.15-2 in Section 3.15, Utilities and Service Systems), the development projects in the cumulative area are located in the Imperial Beach, National City, and Chula Vista. These cities are all members of the San Diego County Water Authority, which continues to rely on imported water. Therefore, cumulative effects on water supply from past, present, and reasonably foreseeable future projects may be significant.

The development projects listed in Table 4-1 would also generate solid waste. These projects would be subject to compliance with AB 939, which requires recycling of at least 50 percent of solid waste, as well as any local recycling goals. As such, impacts on solid waste facilities from past, present, and reasonably foreseeable future projects would not be cumulatively significant.

Project Contribution

The creation of the wetland mitigation bank not require wastewater, water, electricity, or natural gas supplies; however, construction would generate solid waste in the form of soil exports. As discussed in Section 3.15, Utilities and Service Systems, approximately 537,000 cubic yards of soil (accounting for 25 percent expansion in volume) would need to be exported from the project site. In compliance with District policy and state and local requirements for waste reduction and recycling, including the 1989 California IWMA and the 1991 California Solid Waste Reuse and Recycling Access Act, landfill demands would be minimized by recycling all possible materials during project construction. The project would comply with the California IWMA and the City of San Diego's Policy 900-16, which both set diversion goals for waste related to construction and demolitions by reusing as much soil as feasible. When combined with the cumulative projects listed in Table 4-1, the proposed project's incremental contribution to cumulative impacts would not be cumulatively considerable.



As discussed in Section 3.15, Utilities and Service Systems, no construction is proposed on Parcels A, B, and C at this time; however, the land use designation of commercial recreation would allow for commercial development of these parcels. The type of future commercial development would determine the amount of water required for operation, the amount of wastewater generated, and the amount of solid waste generated by operation. In general, as demonstrated by its UWMP, the City of San Diego would have sufficient water supplies available to serve even a high-water usage future commercial development project. A specialty retail/strip commercial development on all three parcels would demand a total of 12.55 million gallons of indoor and outdoor water use per year, which is less than 0.01 percent of the projected increase in water demand for 2040. The PLWTP has sufficient capacity to support 105,000 square feet of new commercial development, which is estimated to represent less than 0.03 percent of the remaining daily capacity. The future commercial development would not generate solid waste in excess of the capacity of local infrastructure and would not conflict with the attainment of solid waste reduction goals by reusing soil as feasible because of compliance with AB 939, District policies, and the 1989 California IWMA and the 1991 California Solid Waste Reuse and Recycling Access Act. When combined with the cumulative projects listed in Table 4-1, the proposed project's incremental contribution to cumulative impacts would not be cumulatively considerable.

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5 Additional Consequences of Project Implementation

5.1 Overview

This chapter provides a discussion of the potential for additional consequences related to the implementation of the project pursuant to CEQA Guidelines 15126.2 (d) and (e) and Section 15128. The requirements of CEQA Guidelines Section 15126.2 (a), (b), and (c) are met in Chapter 3 of this EIR. This chapter discusses any significant irreversible environmental changes to the environment and growth-inducing impacts that would result from the project. Additionally, this chapter includes a description of the environmental effects that were determined not to be significant during the initial review process, as discussed in the IS (Appendix A).

5.2 Significant Irreversible Environmental Changes

Section 15126.2(d) of the CEQA Guidelines requires an EIR to address any significant irreversible environmental changes that may occur as a result of project implementation. Resources that are irreversibly committed to a project are those typically used on a long-term or permanent basis; however, some are considered short-term resources that cannot be recovered. These resources may include the use of nonrenewable resources, such as fuel, wood, or other natural or cultural resources. The unavoidable destruction of natural resources that limit the range of potential uses of that particular environment would also be considered an irreversible commitment of resources.

The proposed project consists of two components: project-level analysis of the creation of a wetland mitigation banks, and program-level analysis of incorporating Parcels A, B, and C into the PMP and assign a land use designation. At this time, no construction or operational activities are proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels. The impact analysis in Chapter 3, Introduction to Environmental Analysis, of this EIR evaluated the reasonable scenario of commercial development on Parcels A, B, and C.

For both project components, two types of resources would be used: general industrial resources, including fuel, electricity, and construction materials, and project-specific resources, such as biological resources, water and soil resources, and land uses.

5.2.1 Project Level – Wetland Mitigation Bank

Industrial resources would be used during the creation of the wetland mitigation bank. This includes gasoline, diesel, oil, electricity, and other nonrenewable energy resources used to power construction equipment and vehicles. The use of these industrial resources would be irreversible.

Generally, irreversible environmental changes to the natural environment would occur within the Bank Site. As discussed in Section 3.3, Biological Resources, creation of the wetland mitigation bank would result in the permanent removal of vegetation communities, plant species, and habitat for wildlife species. However, the Bank Site would be restored as a functioning wetland and would result in higher quality habitat. The Bank Site is anticipated to provide approximately 76.48 acres of mitigation credit, including approximately 64.84 acres of subtidal and intertidal habitat establishment and 11.64 acres

of transitional/upland buffer habitat restoration. An interagency review team comprised of ACOE, U.S. EPA, USFWS, NMFS, CCC, and RWQCB, has been engaged since 2018 to review the South San Diego Bay Wetland Mitigation Bank Final Prospectus (Appendix C) and review the bank enabling instrument. The IRT supports the mitigation bank and the restoration of functioning wetlands.

5.2.2 Program Level – Parcels A, B, and C Port Master Plan Amendment

Similar to the creation of the wetland mitigation bank, industrial resources would be used to construct and operate any future commercial development. This includes gasoline, diesel, oil, electricity, and other nonrenewable energy resources used to power construction equipment and vehicles. Additionally, other nonrenewable resources may be used to build new structures on the project site including but not limited to the following: lumber and other forest products; sand, gravel, and concrete; asphalt; petrochemical construction materials; steel, copper, and other metals; and water consumption. The use of these industrial resources would be irreversible.

Irreversible environmental changes to the natural environment would occur within the Parcels A, B, and C if developed. As discussed in Section 3.3, Biological Resources, wetland habitat present on Parcel A would be destroyed.

Commercial development on Parcels A, B, and C represents a continued commitment of land to urban uses, which intensifies land use on the project site. Once developed, reverting to a less urban use is highly unlikely. Development of the project site would constrain future land use options.

5.3 Growth-Inducing Impacts

CEQA Guidelines Section 15126.2(e) requires that an EIR discuss the ways in which the proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Typical growth-inducing factors might include the extension of urban services or transportation infrastructure to a previously unserved or under-served area or the removal of major barriers to development. A project could induce growth if it results in additional development, such as an increase in population, employment, and/or housing above and beyond what is already assumed would occur in local and regional land use plans or in projections made by regional planning authorities, irrespective of the proposed project.

5.3.1 Project Level – Wetland Mitigation Bank

The creation of the wetland mitigation bank would not be considered population growth inducing because the project does not propose the development of new housing or population-generating uses that would directly or indirectly induce population growth, remove obstacles for future growth, or generate increased demand for public services and utilities in the area. Construction of the wetland mitigation bank would occur over 17 months and require construction workers; however, most would be expected to come from the local workforce.

Economic growth would occur once the wetland mitigation bank meets all performance standards and mitigation credits can be sold. The BPC Policy No. 774¹, established the Pond 20 EDF, which states

¹ Available at:
<https://pantheonstorage.blob.core.windows.net/administration/BPC-Policy-No-774-Pond-20-Economic-Development-Fund-EDF.pdf>

the District's net revenue from Pond 20 development, after reimbursement to the District for all costs and expenses, and after the District has received a reasonable rate of return, funds shall be placed into an EDF. EDF funds may be spent on economic development and public improvement projects in Imperial Beach and in a portion of the City of San Diego's City Council District 8 adjacent to the project site in accordance with the Port Act. Projects eligible for the EDF funding must comply with the Port Act, generate jobs or economic benefit, or constitute a public improvement within Imperial Beach and San Diego's City Council District 8 adjacent to the project site.

5.3.2 Program Level – Parcels A, B, and C Port Master Plan Amendment

If commercial development occurs on Parcels A, B, and C, beneficial growth-inducing impacts would occur. Parcels A and C were included in the BPC Policy No. 774¹. Therefore, any revenue the District accrues from development of Parcels A and C would be placed in an EDF and then EDF funding may be injected back into the surrounding communities. Commercial development of Parcels A, B, and C would result in direct growth inducement by creating an increase in business and local sales tax. Additionally, indirect growth inducement would also occur by generating EDF funds that could lead to new jobs and businesses.

The project would not involve the development of housing because residential use is not permitted on District tidelands. Similar to the wetland mitigation bank, construction workers would be needed for any future commercial development. However, construction would be temporary and workers would be expected to come from local workforce.

5.4 Effects Found Not to be Significant

In accordance with Section 15128 of the CEQA Guidelines, an EIR must contain a statement briefly indicating the reasons that various potential significant impacts of a project were determined not to be significant. The District has determined that the proposed project would not have the potential to cause significant impacts associated with the resource issue areas identified below.

5.4.1 Aesthetics

Section 3.1, Aesthetics, of this EIR includes the environmental impact analysis for aesthetics. Thresholds (a), (b), and (c) are discussed in detail for both project- and program-level components, and Threshold (d) is discussed in detail for program-level components. Threshold (d), which was found not to be significant for project-level components during the preparation of the IS (Appendix A), is described below.

Threshold (d) – Light and Glare

Project Level – Wetland Mitigation Bank

Construction of the wetland mitigation bank would occur during daytime hours and would not require any nighttime construction lighting. Additionally, operation of the wetland mitigation bank would not require installation of light sources or structures that could produce glare. Therefore, no impact would occur.

5.4.2 Agriculture and Forestry Resources

The project site is in an urbanized area that is surrounded by commercial, residential, and open space. The surrounding land uses do not support agricultural uses. According to the California Department of Conservations' San Diego County Important Farmland map (California Department of Conservation 2016), the project site is classified as other land, which does not contain areas designated as prime farmland, unique farmland, or farmland of statewide importance. Additionally, there are no Williamson Act contracts or forest lands in the project vicinity. Therefore, no impact would occur.

The project site does not support forest land, timberland, or timberland zoned Timberland Production, as defined in PRC Section 12220(g) and Section 4526, or GC Section 51104(g). *California's Forests and Rangelands: 2017 Assessment*, completed as part of the CAL FIRE Fire Resource Assessment Program, identifies the project site as urban (CAL FIRE 2017). The project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland. Therefore, no impact would occur.

5.4.3 Air Quality

Section 3.2, Air Quality, of this EIR includes the environmental impact analysis for air quality. Thresholds (a), (b), and (c) are discussed in detail for both project- and program-level components, and Threshold (d) is discussed in detail for program-level components. Threshold (d), which was found not to be significant for project-level components during the preparation of the IS (Appendix A), is described below.

Threshold (d) – Odors

Project Level – Wetland Mitigation Bank

Land uses commonly considered to be potential sources of odorous emissions include wastewater treatment plants, sanitary landfills, food processing facilities, chemical manufacturing plants, rendering plants, paint/coating operations, and concentrated agricultural feeding operations and dairies (CARB 2005). The construction and operation of a wetland mitigation bank is not an odor producer, and the project site is not located near an odor producer. Therefore, no impact would occur.

5.4.4 Biological Resources

Section 3.3, Biological Resources, of this EIR includes the environmental impact analysis for biological resources. Thresholds (a), (b), (c), and (d) are discussed in detail for both project- and program-level components. Thresholds (e) and (f), which were found not to be significant for project- or program-level components during the preparation of the IS (Appendix A), are described below.

Threshold (e) and (f) – Local Policies, Ordinances, or Habitat Conservation Plans Protecting Biological Resources

The proposed project is located within the City of San Diego's Multi-Habitat Planning Area (MHPA) boundary of the MSCP, which delineates core biological resource areas and corridors targeted for conservation. In 1997, the City of San Diego entered into an Implementing Agreement with the USFWS and CDFW (then California Department of Fish and Game) to memorialize conservation and management responsibilities, guarantees of implementation, and corresponding authorizations between the parties. The District is not a party to the Implementing Agreement, nor did the District enter into a similar agreement with the USFWS and CDFW for a similar purpose. As such, although the proposed project occurs within the boundaries of the City of San Diego MSCP and the City of San

Diego MHPA (City of San Diego 1997), the MSCP and MHPA do not apply to projects within the jurisdiction of the District, including the project. The MSCP acknowledges the PMP and references the District's authority: "the Port District will remain sensitive to the needs of and will cooperate with adjacent communities and other agencies in bay and tideland development, including MSCP implementation. The Port District, however, retains all land use and mitigation rights and decision on all land uses within the Port District's jurisdiction." Additionally, if jurisdictions, including special districts such as the Port District, wish to participate in the MSCP, they must prepare and adopt their own subarea plans and enter into an implementing agreement with the USFWS and other regulatory agencies. Therefore, consistency with the MSCP's Land Use Adjacency Guidelines is not required; however, in response to the City of San Diego's comment letter on the NOP, the proposed project would not adversely affect the MHPA through lighting, drainage, landscaping, grading, access, or noise.

Further, the San Diego Bay Integrated Natural Resources Management Plan is a long-term, collaborative strategy for managing the bay's natural resources and the primary means by which the U.S. Navy and District jointly plan natural resources work in San Diego Bay (Naval Facilities Engineering Command and District 2013). The project site is located within the Integrated Natural Resources Management Plan and would be consistent with its goals and strategies for ensuring the long-term health, restoration, and protection of San Diego Bay's ecosystem. The proposed project would not be in conflict with local policies or ordinances protecting biological resources.

5.4.5 Energy

Section 3.5, Energy, of this EIR includes the environmental impact analysis for energy. Threshold (a) is discussed in detail for both project- and program-level components, and Threshold (b) is discussed in detail for program-level components. Threshold (b), which was found not to be significant for project-level components during the preparation of the IS (Appendix A), is described below.

Threshold (b) – State or Local Renewable Energy or Energy Efficiency Plans

Project Level – Wetland Mitigation Bank

In 2002, the State of California established its Renewables Portfolio Standard Program, of which the latest addition is SB 100, which revises the state goal to achieve 60 percent renewable energy target by December 31, 2030. Locally, the District's 2013 Climate Action Plan identifies strategies to reduce GHG emissions, including on-road transportation, off-road transportation, clean and renewable energy, increased use of natural gas, and other strategies (San Diego Unified Port District 2013). While on-road and off-road transportation is required for the creation of the wetland mitigation bank, the GHG emissions and energy consumption associated with these activities would be short term in duration. No new permanent sources of energy consumption would be created and, therefore, no conflict or obstruction would occur. Impacts would be less than significant for this threshold.

5.4.6 Geology and Soils

Section 3.6, Geology and Soils, of this EIR includes the environmental impact analysis for geology and soils. Thresholds (a.ii.), (a.iii.), (b), (c), (d), and (f) are discussed in detail for both project- and program-level components, and Threshold (e) is discussed in detail for program-level components. Thresholds (a.i.) and (a.iv.), which were found not to be significant for project- and program-level components, and Threshold (e), which was found not to be significant for project-level components during the preparation of the IS (Appendix A), are described below.

Threshold (a.i.) – Rupture of Known Earthquake Fault

Project Level – Wetland Mitigation Bank and Program Level – Parcels A, B, and C Port Master Plan Amendment

The proposed project would not expose people or structures to potential substantial adverse effects from the rupture of a known earthquake fault. According to the most recent Alquist-Priolo Earthquake Fault Zoning Map, the project site is not located within a State of California Alquist-Priolo earthquake fault zone (City of San Diego 2008). The nearest active faults are the Newport-Inglewood/Rose Canyon fault system located approximately 3 miles west of the project site. The proposed project would not include the addition of new structures meant for human occupancy within 50 feet of the nearest fault. Impacts would be less than significant for both project- and program-level components.

Threshold (a.iv.) – Landslides

Project Level – Wetland Mitigation Bank and Program Level – Parcels A, B, and C Port Master Plan Amendment

The proposed project would not expose people or structures to potential substantial adverse effects from landslides. The project site and surrounding area is relatively flat. Additionally, according to the City of San Diego Seismic Safety Geologic Hazards and Faults Map (City of San Diego 2008), the project site is not located in an area prone to landslide hazards. Therefore, no impact would occur for project- and program-level components.

Threshold (e) – Septic Tanks

Project Level – Wetland Mitigation Bank

The creation of a wetland mitigation bank would not require the use of septic tanks or alternative wastewater disposal systems since no disposal of wastewater is proposed. Therefore, no impact would occur.

5.4.7 Hazards and Hazardous Materials

Section 3.8, Hazards and Hazardous Materials, of this EIR includes the environmental impact analysis for hazards and hazardous materials. Thresholds (a), (b), (f), and (g) are discussed in detail for both project- and program-level components. Thresholds (c), (d), and (e), which were found not to be significant for project- and program-level components during the preparation of the IS (Appendix A), are described below.

Threshold (c) – Proximity to Schools

Project Level – Wetland Mitigation Bank and Program Level – Parcels A, B, and C Port Master Plan Amendment

The proposed project would not create any impacts associated with hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school because the project site is not located within 0.25 mile of an existing or proposed school. The nearest schools to the project site are Bayside Elementary School, located approximately 0.40 mile west of the project site, and Saint Charles Catholic School, located approximately 0.5 mile

southeast of the project site. Therefore, no impact would occur for project- and program-level components.

Threshold (d) – Hazardous Material Sites

Project Level – Wetland Mitigation Bank and Program Level – Parcels A, B, and C Port Master Plan Amendment

The project site is not listed as a hazardous materials site on the Hazardous Waste and Substance Sites List, also known as the Cortese List, as required by California GC Section 65962.5 (Department of Toxic Substances Control 2019). Therefore, no impact would occur for project- and program-level components.

Threshold (e) – Airports

Project Level – Wetland Mitigation Bank and Program Level – Parcels A, B, and C Port Master Plan Amendment

The project site is not located within 2 miles of a public airport. The nearest airport to the project site is the Brown Field Municipal Airport, located approximately 6 miles east of the project site. Therefore, no impact associated with airport hazards would occur with implementation of project- and program-level components.

5.4.8 Hydrology and Water Quality

Section 3.9, Hydrology and Water Quality, of this EIR includes the environmental impact analysis for hydrology and water quality. Thresholds (a), (c.i.), (c.ii.), (c.iv.), and (d) are discussed in detail for both project- and program-level components, and Thresholds (b), (c.iii.), and (e) are discussed in detail for program-level components. Thresholds (b), (c.iii.), and (e), which were found not to be significant or less than significant for project-level components during the preparation of the IS (Appendix A), are described below.

Threshold (b) – Groundwater

Project Level – Wetland Mitigation Bank

During construction, potable water would be brought to the site for drinking and domestic needs, while construction water may be brought to the site for uses such as soil conditioning and dust suppression. The majority of the groundwater below the project site is hypersaline, and therefore, not used for drinking water; subsequently, the project would not impact drinking water. Because the project would create a wetland mitigation bank, operation of the proposed project would not impede groundwater recharge or impede sustainable groundwater management of the basin. Therefore, the impact on groundwater supplies would be less than significant.

Threshold (c.iii.) – Stormwater Runoff

Project Level – Wetland Mitigation Bank

The creation of the wetland mitigation would not create new impervious surfaces or contribute runoff water to an existing or planned stormwater drainage system. The project site currently receives

stormwater runoff from Palm Avenue. The project would result in the creation of a wetland mitigation bank and would not result in a source of polluted runoff. Therefore, no impact would occur.

Threshold (e) – Water Quality Control Plan

Project Level – Wetland Mitigation Bank

Creation of a wetland mitigation bank would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan as the project would not create a new source of pollutants or impact groundwater. Therefore, no impact would occur.

5.4.9 Land Use and Planning

Section 3.10, Land Use and Planning, of this EIR includes the environmental impact analysis for land use and planning. Threshold (b) is discussed in detail for both project- and program-level components. Threshold (a), which was found not to be significant for project- and program-level components during the preparation of the IS (Appendix A), is described below.

Threshold (a) – Physically Divide an Established Community

Project Level – Wetland Mitigation Bank

The creation of the wetland mitigation bank would rehabilitate a previously undeveloped vacant site, which includes a portion of a former salt pond. There are no established residential communities located within the project site. Therefore, implementation of the proposed project would not divide an established community, and no impact would occur.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operational activities are proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels. Parcels A, B, and C are currently vacant. There are no established residential communities located within the project site. Therefore, implementation of the proposed project would not divide an established community, and no impact would occur.

5.4.10 Mineral Resources

The project site does not contain any known mineral resources. The project site and the surrounding area are not designated or zoned as land with the availability of mineral resources (County of San Diego 2011). Additionally, the project site is not identified on the California Department of Conservation Division of Mines and Geology as containing aggregate resources and is not in a mineral resource zone (California Department of Conservation 2015). Therefore, the proposed project would not result in a loss of mineral resources.

5.4.11 Population and Housing

The project would not involve the development of housing. While the creation of the wetland mitigation bank would create temporary construction jobs, the maximum number of people onsite is anticipated to be up to 24 personnel for 6 months. No full-time employees are required to operate the wetland mitigation bank. Maintenance of the wetland mitigation bank would involve invasive species monitoring and removal, trash removal, maintenance of site control measures, and restoration of any damage

from human or natural phenomenon. Therefore, the proposed project would not result in a substantial growth in the area, as there would not be a permanent number of new employees required to maintain the site. At this time, no construction or operational activities are proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels. If these parcels are developed, it would be unlikely that new businesses in these locations would have a substantial impact on population growth due to the small size of the parcels. Therefore, the project- and program-level components would not induce a substantial unplanned population growth in the project area, and impacts would be less than significant.

The project site does not currently contain housing, and no people reside within the project site. Therefore, the proposed project would not displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere. Therefore, no impact associated with displacing people or housing would occur with implementation of project- and program-level components.

5.4.12 Public Services

Section 3.12, Public Services, of this EIR includes the environmental impact analysis for public services. Threshold (a.i.) is discussed in detail for program-level components. Thresholds (a.i.), which was found not to be significant for project-level components and Thresholds (a.ii.), (a.iii.), (a.iv.), and (a.v.), which were found not to be significant for project- and program-level components during the preparation of the IS (Appendix A), are described below.

Threshold (a.i.) – Fire Protection

Project Level – Wetland Mitigation Bank

The project site is located in City of San Diego, and fire protection and emergency medical services in the area are provided by the SDFD. Two SDFD fire stations, including Fire Stations 30 (2265 Coronado Avenue) and 6 (693 Twining Avenue), are located southeast of the project site and could respond in the event of an emergency (City of San Diego 2019). Construction of the wetland mitigation bank would be temporary and would not create new facilities that would require fire protection. Based on these considerations, the project would not result in a need for fire facility expansion. A less than significant impact is identified for this issue area.

Threshold (a.ii.) – Police Protection

Police protection for the project site would be provided by officers from the San Diego Police Department Southern Division, on beats 721, 722, and 724, located at 1120 27th Street, San Diego, CA, 92154. The San Diego Police Department has a citywide goal to maintain 1.48 officers per 1,000 population ratio. Additionally, the San Diego Harbor Police would provide police protection for the project site from the San Diego Harbor Police Chula Vista/South Bay Substation located at 950 Marina Way, Chula Vista, CA, 91910.

Project Level – Wetland Mitigation Bank

Creation of the wetland mitigation bank would not result in new residents to the project vicinity that would require police protection. Although the potential is low, the proposed project may attract vandals or other security risks; however, the creation of a wetland mitigation bank would not require an increase in police protection that would warrant new police facilities. Therefore, impacts would be less than significant.

Program Level – Parcels A, B, and C Port Master Plan Amendment

The project site is located in an urban area that is currently served by existing police protection services. At this time, no construction or operational activities are proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels. While commercial development may result in an increase in traffic generated by new growth, the increase would be minimal and would not require increase in police protection that would warrant new police facilities. Therefore, impacts would be less than significant.

Threshold (a.iii.) – Schools

Project Level – Wetland Mitigation Bank and Program Level – Parcels A, B, and C Port Master Plan Amendment

The proposed project does not include the development of residential land uses that would result in an increase in population or student generation. Construction of the proposed project would not result in an increase in student population within the South Bay Union School District because construction workers are not anticipated to move to the area permanently. The proposed project would have no impact on South Bay Union School District or surrounding school districts.

Threshold (a.iv.) – Parks

Project Level – Wetland Mitigation Bank

The creation of a wetland mitigation bank would not result in construction of facilities that would generate the need for park use. Additionally, no full-time employees are required to operate the wetland mitigation bank. Maintenance of the wetland mitigation bank would involve invasive species monitoring and removal, trash removal, maintenance of site-control measures, and restoration of any damage from human or natural phenomenon. Therefore, substantial permanent increases in population that would impact local parks are not expected. The project would result in no impacts on parks.

Program Level – Parcels A, B, and C Port Master Plan Amendment

At this time, no construction or operational activities are proposed on Parcels A, B, or C; however, the land use designation of commercial recreation would allow for commercial development of these parcels. If Parcels A, B, and C are developed, there would be negligible effect on population growth, it is unlikely that new recreational facilities would be developed due to new commercial development. The proposed project would have a less than significant impact.

Threshold (a.v.) – Other Public Facilities

Project Level – Wetland Mitigation Bank and Program Level – Parcels A, B, and C Port Master Plan Amendment

Creation of the wetland mitigation bank would not result in construction of facilities that would be associated with population growth, which typically increases the demand for public services and facilities, such as post offices and libraries. Additionally, while no construction or operational activities are proposed on Parcels A, B, or C at this time, the land use designation of commercial recreation would allow for commercial development of these parcels. If Parcels A, B, and C are developed, there would also be negligible effect on population growth. Therefore, substantial permanent increases in

population that would adversely affect other public services and facilities are not expected. The project is not expected to have an impact on other public facilities, such as post offices, and libraries.

5.4.13 Recreation

The creation of a wetland mitigation bank would not generate new employment on a long-term basis. As such, the project would not significantly increase the use or accelerate the deterioration of regional parks or other recreational facilities. The temporary increase of population during construction that may be caused by an influx of workers would be minimal and not cause a detectable increase in the use of parks. Additionally, the project does not include or require the expansion of recreational facilities. While no construction or operational activities are proposed on Parcels A, B, or C at this time, the land use designation of commercial recreation would allow for commercial development of these parcels. If Parcels A, B, and C are developed, commercial land uses do not typically generate an increase in the use of neighborhood and regional parks or other recreational facilities, such as community centers. Therefore, impacts would be less than significant.

5.4.14 Transportation

Section 3.13, Transportation, of this EIR includes the environmental impact analysis for transportation. Thresholds (a) and (b) are discussed in detail for project- and program-level components, and Thresholds (c) and (d) are discussed in detail for program-level components. Thresholds (c) and (d), which were found not to be significant for project-level components during the preparation of the IS (Appendix A), are described below.

Threshold (c) – Geometric Design Features

Project Level – Wetland Mitigation Bank

The creation of the wetland mitigation bank would not result in any physical changes to existing road conditions and no new road are proposed as part of the project. Therefore, the project level component of the project would not include design features that would increase hazards and no impact would occur.

Threshold (d) – Inadequate Emergency Access

Project Level – Wetland Mitigation Bank

The creation of the wetland mitigation bank would not result in any road closures or detours that would impact emergency access surrounding the project site. Therefore, no impact is identified for this issue area.

5.4.15 Utilities and Service Systems

Section 3.15, Utilities and Service Systems, of this EIR includes the environmental impact analysis for utilities and service systems. Thresholds (d) and (e) are discussed in detail for project- and program-level components, and Thresholds (a), (b) and (c) are discussed in detail for program-level components. Thresholds (a), (b), and (c), which were found not to be significant for project-level components during the preparation of the IS (Appendix A), are described below.

Threshold (a) – Relocation or Construction of New or Expanded Facilities

Project Level – Wetland Mitigation Bank

The creation of a wetland mitigation bank would not require water, wastewater treatment, electric power, natural gas, or telecommunication facilities. Therefore, the project level components would not require construction or new or expanded facilities. There are known facilities on the project site, including SDG&E line easement on the southeast portion of the project site, a Palm City Sanitation District 20-foot-wide easement for sewer ditches and pipelines on the southeast portion of the project site, and City of San Diego 30-inch trunk sewer pipe on the eastern portion of the site. The wetland mitigation bank would not require the relocation of these facilities; therefore, no impact is identified for this issue area.

Threshold (b) – Sufficient Water Supplies

Project Level – Wetland Mitigation Bank

The creation of a wetland mitigation bank would not require water or wastewater treatment. Water may be used for dust suppression during project construction; however, only two water trucks are proposed for 15 months. The amount of water needed is minimal and sufficient water supplies are available. Therefore, impacts would be less than significant.

Threshold (c) – Wastewater Treatment

Project Level – Wetland Mitigation Bank

The creation of a wetland mitigation bank would generate a minimal volume of wastewater during construction. During construction activities, wastewater would be contained within portable toilet facilities and disposed of at an approved site. No habitable structures are proposed on the project site; therefore, there would be no wastewater generation from the proposed project. The proposed project would not exceed the wastewater treatment requirements. Therefore, impacts would be less than significant.

5.4.16 Wildfire

The project is not located in or near state responsibility areas or lands classified as Very High Fire Hazard Severity Zone as recommended by CAL FIRE (CAL FIRE 2009). Therefore, no impact is identified for this issue.

6 Alternatives to the Proposed Project

6.1 Overview

The identification and analysis of alternatives is a fundamental concept under CEQA. CEQA requires the consideration of alternative development scenarios and an analysis of the potential impacts associated with those alternatives. Through comparison of these alternatives to the proposed project, the advantages of each can be weighed and analyzed.

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.

6.2 Requirements for Alternatives Analysis

Section 15126.6(a) of the CEQA Guidelines requires that an EIR “describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.”

Additionally, Sections 15126.6(e) and (f) of the CEQA Guidelines state:

- The specific alternative of no project shall also be evaluated along with its impact. If the environmentally superior alternative is the no project alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.
- The range of alternatives required in an EIR is governed by a rule of reason that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the proposed project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the proposed project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making.

Pursuant to the CEQA Guidelines stated above, a range of alternatives to the proposed project is considered and evaluated in this EIR. The discussion in the section provides:

- A description of alternatives considered;
- An analysis of whether the alternatives meet most of the objectives of the proposed project; and
- A comparative analysis of the alternatives under consideration and the proposed project. The focus of this analysis is to determine if alternatives are capable of eliminating or reducing the significant environmental effects of the proposed project.

6.3 Selection of Alternatives

The basic project objectives of the proposed project include the following:

- Incorporate the Bank Parcel into the PMP and assign a land use designation to be compliant with the Port Act and CCA
- Create a wetland mitigation bank that produces revenue by offering the business community and government agencies the opportunity to purchase predeveloped wetland mitigation credits to mitigate project impacts on wetland habitat
- Enhance ecological functions at the Bank Parcel by providing forage and nesting habitat for native bird species and habitat for native fish species while also creating additional environmental co-benefits such as, but not limited to, carbon sequestration, nutrient cycling, and water quality filtration
- Reduce the chance and scale of flooding within the surrounding off-site area through the Bank Parcel under the existing condition by designing greater capacity to contain stormwater and coastal waters within the Bank Parcel
- Establish tidal influence and create coastal wetlands by reconnecting the Bank Site to tidal flows from San Diego Bay
- Provide long-term protection of the Bank Site by reaching native vegetation coverage and sediment surface elevation success criteria, while providing access for long-term monitoring and restoration of wetlands, as needed
- Incorporate the District-owned Parcels A, B, and C into the PMP and assign a land use designation to be compliant with the Port Act and CCA
- Support economic development and community investment consistent with the District's adoption of BPC Policy No. 774 (i.e. the Pond 20 EDF)¹
- Promote future development on Parcels A, B, and C that complements adjacent uses

6.4 Alternatives Considered

6.4.1 Alternatives Considered but Rejected

In addition to specifying that the EIR evaluate “a range of reasonable alternatives” to the project, Section 15126.6(c) of the CEQA Guidelines requires that an EIR identify any alternatives that were considered but were rejected as infeasible.

Section 15126.6(f)(2) of the CEQA Guidelines addresses alternative locations for a project. The key question and first step in the analysis is whether any of the significant impacts of the proposed project would be avoided or substantially lessened by putting the proposed project in another location. Only locations that would avoid or substantially lessen any of the significant impacts of the project need to be considered for inclusion in the EIR. Further, CEQA Guidelines Section 15126.6(f)(1) states that among the factors that may be taken into account when addressing the feasibility of alternative

¹ Available at:

<https://pantheonstorage.blob.core.windows.net/administration/BPC-Policy-No-774-Pond-20-Economic-Development-Fund-EDF.pdf>



locations are whether the project proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). An alternative site was rejected because Board Policy No. 774 identified the proposed location. Further, the District-owned parcels need to be incorporated into the PMP to comply with the Port Act.

During the early planning stages of the project, several alternative designs were evaluated. These alternative designs were rejected for evaluation in this EIR because the IRT consisting of representatives from the ACOE, CCC, USFWS, NMFS, EPA, and RWQCB have reviewed the design proposed in this EIR and the banking enabling instrument process is underway for this design.

6.4.2 Alternatives Selected for Analysis

Alternative 1: No Project/No Wetland Mitigation Bank or PMPA Alternative

The CEQA Guidelines require analysis of the no project alternative (PRC Section 15126). According to Section 15126.6(e), “the specific alternative of ‘no project’ shall also be evaluated along with its impacts. The ‘no project’ analysis shall discuss the existing conditions at the time the NOP is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.”

For the purposes of this EIR, the no project alternative assumes no wetland mitigation bank would be developed, and no parcels would be incorporated into the PMP. The project site would remain in its current undeveloped condition.

Alternative 2: Wetland Mitigation Bank and No Commercial Development on Parcels A, B, and C

The Wetland Mitigation Bank and No Commercial Development of Parcels A, B, and C Alternative assumes the creation of the wetland mitigation bank would occur as described in this EIR. The Bank Parcel would be incorporated into the PMP with the land use designation of wetlands. Parcels A, B, and C would still be incorporated into the PMP; however, instead of the land use designation of commercial recreation, the land use designation of open space would be assigned. The open space land use designation may include limited use and/or transitional zones from biologically significant resources deserving protection and preservation. Public access within open spaces areas is limited to passive uses, such as outlooks, picnic areas, or spur trails, which should include interpretive and educational opportunities. This alternative assumes preservation and protection of the wetland features on Parcels A and C.

Alternative 3: Wetland Mitigation Bank, Commercial Recreation on Parcels B and C, and Open Space on Parcel A

The Wetland Mitigation Bank, Commercial Recreation on Parcels B and C, and Open Space on Parcel A Alternative assumes the creation of the wetland mitigation bank would occur as described in this EIR. The Bank Parcel would be incorporated into the PMP with the land use designation of wetlands. Parcels B and C would still be incorporated into the PMP as commercial recreation, as described in this EIR. Parcel A would be incorporated into the PMP with the land use designation of open space. Similar to Alternative 2, the open space land use designation may include limited use and/or transitional zones from biologically significant resources deserving protection and preservation. Public

access within open spaces areas is limited to passive uses, such as outlooks, picnic areas, or spur trails, which should include interpretive and educational opportunities. This alternative assumes protection of the wetland features on Parcel A.

6.5 Analysis of Alternatives

6.5.1 Alternative 1: No Project/No Wetland Mitigation Bank or Port Master Plan Amendment Alternative

Aesthetics

Changes to the existing aesthetic conditions would not occur. The Bank Parcel and Parcels A, B, and C would remain vacant and undeveloped. No sources of light or glare would be introduced. While the wetland mitigation bank would not result in a significant aesthetic impact, the future commercial development of Parcels A, B, and C could potentially introduce a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Therefore, Alternative 1 would result in no impacts related to aesthetics. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative creates less of an environmental impact.

Air Quality

Alternative 1 would not include the construction of a wetland mitigation bank or commercial development. Additionally, no operational activities associated with commercial development would occur; therefore, Alternative 1 would result in no increase of emissions of criteria pollutants. Therefore, Alternative 1 would result in no impacts related to air quality. Compared to the proposed project that results in a less than significant impact, this alternative creates less of an environmental impact.

Biological Resources

Implementation of this alternative would avoid any potential direct or indirect impacts on biological resources. Existing conditions in the study area would remain the same. Therefore, Alternative 1 would result in no impacts related to biological resources. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative creates less of an environmental impact.

Cultural Resources

No construction-related ground disturbance would occur; therefore, cultural resources within the project site would not be disturbed. Compared to the proposed project, this alternative would avoid impacts on the following resources: archaeological site CA-SDI-4360, WSC Salt Works District, and archaeological site CA-SDI-19712. Therefore, Alternative 1 would result in no impacts related to Cultural Resources. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative creates less of an environmental impact.

Energy

Alternative 1 would not include the construction of a wetland mitigation bank or commercial development which would consume energy. Additionally, no operational activities associated with commercial development that would consume energy would occur. Therefore, Alternative 1 would result in no impacts related to Energy. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative creates less of an environmental impact.

Geology and Soils

Alternative 1 would not include the construction of a wetland mitigation bank or commercial development. Changes to geologic conditions at the project site would not occur as a result of grading or construction of commercial development; therefore liquefaction hazards, soil erosion, lateral spreading, or hazardous conditions resulting from expansive soils would not occur. Therefore, Alternative 1 would result in no impacts related to geology and soils. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative creates less of an environmental impact.

Greenhouse Gas Emissions

Under this alternative, no GHG impacts would occur, as no new emissions would occur. GHG emissions would be similar to existing conditions. This alternative would avoid a significant and unavoidable increase in GHG emissions as no new development would occur on site. Therefore, Alternative 1 would result in no impacts related to greenhouse gas emissions. Compared to the proposed project that results in a significant and unavoidable impact, this alternative creates less of an environmental impact.

Hazards and Hazardous Materials

Under Alternative 1, there would be no ground-disturbing activities associated with construction, and there would be no potential to encounter contaminated soil 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 result in no impacts related to hazards and hazardous materials. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative creates less of an environmental impact.

Hydrology and Water Quality

No changes to the hydrodynamic system would occur under Alternative 1 at the project site. The ORERP wetland restoration project would still be developed in the northern portion of Pond 20. An earthen berm would be constructed on the northern edge of the proposed project site to avoid flooding the southern portion of Pond 20. Alternative 1 would avoid a significant impact from potential long-term scour at the Bayshore Bikeway Bridge and near Pond 22. Therefore, Alternative 1 would result in no impacts related to hydrology and water quality. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative creates less of an environmental impact.

Land Use and Planning

The Bank Parcel and Parcels A, B, and C would not be incorporated in the PMP and would not be assigned a land use designation. This alternative would continue the existing conflict with the Port Act, which requires land and water uses in the District's jurisdiction be assigned a land use in the PMP. Therefore, Alternative 1 would result in significant impacts related to land use. Compared to the proposed that results in a less than significant impact, this alternative creates a greater environmental impact.

Noise

Alternative 1 would not include the construction of a wetland mitigation bank or commercial development. Additionally, no operational activities associated with commercial development would occur. Therefore, Alternative 1 would result in no noise or vibration impacts. Therefore, Alternative 1 would result in no impacts related to noise and vibration. Compared to the proposed project that results in a significant and unavoidable impact, this alternative creates less of an environmental impact.

Public Services

Alternative 1 would not include the construction of a wetland mitigation bank or commercial development. Additionally, no operational activities associated with commercial development would occur. Therefore, Alternative 1 would result in no increase in demand of public services. Therefore, Alternative 1 would result in no impacts related to public services. Compared to the proposed project that results in a less than significant impact, this alternative creates less of an environmental impact.

Transportation

This alternative would avoid any significant increases in VMT, as no new development would occur on site. Alternative 1 would avoid a significant and unavoidable impact from an increase in VMT due to commercial development. Therefore, Alternative 1 would result in no impacts related to transportation. Compared to the proposed project that results in a significant and unavoidable impact, this alternative creates less of an environmental impact.

Tribal Cultural Resources

Under Alternative 1, no impacts on TCRs would occur because TCRs have not been identified on the project site, and no ground disturbance would occur. Therefore, Alternative 1 would result in no impacts related to TCRs. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative creates less of an environmental impact.

Utilities and Service Systems

Under this alternative, the demand for water, generation of wastewater treatment or stormwater drainage, electrical power, natural gas, or telecommunications facilities, and generation of solid waste would remain the same as existing conditions. No development on Parcels A, B, or C would occur which could result in the need to relocate utilities. Alternative 1 would avoid any impacts associated with the relocation of utilities. Therefore, Alternative 1 would result in no impacts related to utilities and service systems. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative creates less of an environmental impact.

Conclusion – Alternative 1

Under this alternative, nearly all the impacts associated with implementation of the proposed project would be reduced, including impacts on aesthetics, biological resources, cultural resources, energy, geology/soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, transportation, TCRs, and utilities and service systems. This includes significant and unavoidable impacts on GHG emissions, noise, and transportation. However, the No Project/No Wetland Mitigation Bank or PMPA Alternative would not be consistent with the Port Act, and therefore, would continue an



existing adverse impact related to land use and planning. As shown in Table 6-1, implementation of this alternative would not meet most of the basic objectives of the proposed project.

Table 6-1. Attainment of Project Objectives – Alternative 1 No Project/No Wetland Mitigation Bank or Port Master Plan Amendment Alternative

Project Objective	Does Alternative 1 Meet Project Objective?
Incorporate the Bank Parcel into the PMP and assign a land use designation in order to be in compliance with the Port Act and CCA	No. The Bank Parcel would not be assigned a land use designation and would not be incorporated in the PMP. By not assigning a land use designation and incorporating the Bank Parcel into the PMP, there would be a conflict with the Port Act and CCA.
Create a wetland mitigation bank that produces revenue by offering the business, community, and government agencies the opportunity to purchase predeveloped wetland mitigation credits to mitigate project impacts on wetland habitat	No. A wetland mitigation bank would not be created.
Enhance ecological functions at the Bank Parcel by providing forage and nesting habitat for native bird species, and habitat for native fish species, while also creating additional environmental co-benefits such as, but not limited to, carbon sequestration, nutrient cycling, and water quality filtration.	No. The existing low quality habitat would remain. The ecological function of the project site would not be enhanced.
Reduce the chance and scale of flooding within the surrounding off-site area through the Bank Parcel under the existing condition by designing greater capacity to contain stormwater and coastal waters within the Bank Parcel.	No. The Bank Parcel would not be modified to hold greater capacity of coastal waters, which would not reduce the chance and scale of flooding within the surrounding off-site areas.
Establish tidal influence and create coastal wetlands by reconnecting the Bank Site to tidal flows from San Diego Bay	No. The existing tidal conditions would be maintained.
Provide long-term protection of the Bank Site by reaching native vegetation coverage and sediment surface elevation success criteria, while providing access for long-term monitoring and restoration of wetlands, as needed.	No. The Bank Site would not be planted with native vegetation and the success criteria would not be met.
Incorporate the District-owned Parcels A, B, and C into the PMP and assign a land use designation in order to be in compliance with the Port Act and CCA.	No. Parcels A, B, and C would not be assigned a land use designation and would not be incorporated into the PMP. By not assigning a land use and incorporating Parcels A, B, and C into the PMP, there would be a conflict with the Port Act and CCA.
Support economic development and community investment consistent with the District’s adoption of BPC Policy No. 774 (i.e., the Pond 20 EDF).	No. A wetland mitigation bank would not be created, and no revenue would be generated to provide economic benefits. Additionally, no commercial development would be created on Parcels A, B, or C.
Promote future development on Parcels A, B, and C that complements adjacent uses.	No. Under this alternative, no commercial development would occur on Parcels A, B, or C.

Notes:

BPC=Board of Port Commissioners; CCA=California Coastal Act; PMP=Port Master Plan

6.5.2 Alternative 2: Wetland Mitigation Bank and No Commercial Development on Parcels A, B, and C

Aesthetics

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. Indirect impacts of construction activities on scenic vistas would be short term and restricted to the project site. After construction is complete, the visual character of the project site would be improved.

Alternative 2 would not include construction and operation of commercial development. Under this alternative, the assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use open space designation, it is assumed that public access areas are limited to passive uses, such as outlooks, picnic areas, or spur trails. No new sources of glare would be introduced; however, these passive uses may require lighting. Implementation of MM AES-2 would also apply to this alternative in order to reduce significant impacts to less than significant.

Overall, impacts on aesthetics resources from Alternative 2 would be similar, but slightly reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in a similar environmental impact.

Air Quality

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to result in any long-term regional air quality impacts, and the short-term air quality impacts from construction would be less than significant.

Alternative 2 would not include construction and operation of commercial development. Under this alternative, the assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, emissions from these construction activities would be substantially reduced compared to the proposed project. Additionally, the land use designation open space would require minimal operational activities associated with maintenance. Alternative 2 would result in less than significant impacts related to air quality.

Overall, impacts associated with air quality from Alternative 2 would be reduced. Compared to the proposed project that results in a less than significant impact, this alternative creates less of an environmental impact.

Biological Resources

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation would result in multiple significant, but mitigable, impacts on biological resources, including special status plant and wildlife species and jurisdictional wetlands. However, higher quality habitat for these resources would be created, as well as the creation of enhanced wetlands. Implementation of MM BR-1, MM BR-2, MM BR-3, MM BR-4, MM BR-5, MM BR-6, MM BR-9, and MM BR-10 would also apply to this alternative in order to reduce significant impacts to less than significant.

Alternative 2 would not include construction and operation of commercial development. Under this alternative the assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Public access within open space areas is limited to passive uses, such as an outlook, picnic area, or spur trail. The open space designation may include limited use and/or transitional zones from biologically significant resources deserving protection and preservation. Any construction activities required to create an outlook, picnic area, or spur trail would be substantially reduced compared to the proposed project. Additionally, the wetlands associated with Parcels A and C would be preserved, and efforts to protect and preserve biologically significant resources would occur. Therefore, biological resource impacts associated with future commercial development would be reduced. This includes protection of 0.68 acre of WOUS/WOS and 1.19 acre of CCC wetland and CDFW-regulated streambed. Additionally, several special status species have potential to occur on Parcel A, B, and C, including special status plants: estuary seablite, salt marsh bird's-beak, Coulter's goldfields, Pacific saltbush, and Lewis's evening primrose, and special status wildlife species: Belding's savannah sparrow, California least tern, light-footed Ridgway's rail, western snowy plover, burrowing owl, northern harrier, loggerhead shrike, San Diego black-tailed jackrabbit, short-eared owl, Brant, bald eagle, black tern, large-billed savannah sparrow, black skimmer, orange-throated whiptail, and western red bat. While special status habitat would be preserved and protected, construction may still disturb wildlife including nesting birds. Implementation of MM BR-8 would apply to this alternative in order to reduce significant impacts to less than significant.

Overall, impacts on biological resources from Alternative 2 would be similar but slightly reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in a similar environmental impact.

Cultural Resources

Under this alternative the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation would result in multiple significant impacts on cultural resources, including archaeological site CA-SDI-4360, WSC Salt Works District, and archaeological site CA-SDI-19712. Implementation of MM CR-1, MM CR-2, and MM CR-3 would also apply to this alternative in order to reduce significant impacts. Impacts on archaeological and historic sites CA-SDI-4360, WSC Salt Works District, and CA-SDI-19712 would be reduced to a level less than significant.

Alternative 2 would not include construction and operation of commercial development. Under this alternative, the assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project and would include minimal amounts of ground disturbance, if any. Additionally, the land use designation open space would require minimal operational activities associated with maintenance. Therefore, impacts on archaeological site CA-SDI-4360 and archaeological site CA-SDI-19712 would be reduced; however monitoring for cultural resources may still be required depending on the type of construction activities. Implementation of MM CR-1 and MM CR-3 would also apply to this alternative in order to reduce significant impacts.

Overall, impacts on cultural resources from Alternative 2 would be similar, but slightly reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in a similar environmental impact.

Energy

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to result in wasteful, inefficient, or unnecessary consumption of energy resources, and impacts from construction and operation would be less than significant.

Alternative 2 would not include construction and operation of commercial development. Under this alternative, the assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project and would require less energy to construct. Additionally, the land use designation open space would require minimal operational activities associated with maintenance. Therefore, energy consumption for construction activities would be substantially reduced, and energy related to operations would be limited to potential light sources and fuel consumption by vehicles. However, because no buildings would be constructed, Alternative 2 would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

Overall, impacts on energy from Alternative 2 would be reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would create less of an environmental impact.

Geology and Soils

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to exacerbate strong seismic ground shaking, seismic-related ground failure, or liquefaction, result in substantial soil erosion, result in an unstable geologic unit or soil, or direct or indirectly destroy paleontological resources.

Alternative 2 would not include construction and operation of commercial development. Under this alternative, the assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction would not require ground disturbance below 10 feet which could potentially destroy paleontological resources. Any construction activities would be substantially reduced compared to the proposed project and would not require grading of the entire parcels or introduce new structures. Therefore, no changes in geologic conditions on Parcels A, B, or C would occur that could result in liquefaction hazards, soil erosion, lateral spreading, or hazardous conditions resulting from expansive soils. Additionally, impacts on paleontological resources would be avoided.

Overall, impacts on geology and soils from Alternative 2 would be reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would create less of an environmental impact.

Greenhouse Gas Emissions

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to exceed the screening threshold established by the county or conflict with the District CAP or long-term statewide emissions reduction goals.

Alternative 2 would not include construction and operation of commercial development. Under this alternative, the assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space,

construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project and would result in fewer GHG emissions. Additionally, the land use designation open space would require minimal operational activities associated with maintenance. Therefore, GHG emissions from construction and operation of an outlook, picnic area, or spur trail would be substantially reduced compared to the proposed project and would not exceed the screening threshold established by the county.

Overall, impacts on GHG emissions from Alternative 2 would be reduced. Compared to the proposed project that results in a significant and unavoidable impact, this alternative would create less of an environmental impact.

Hazards and Hazardous Materials

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation would result in significant, but mitigable, impacts due to contaminated soils at the project site. Implementation of MM HAZ-1 and MM HAZ-2 would also apply to this alternative in order to reduce significant impacts to a level less than significant.

Alternative 2 would not include construction and operation of commercial development. Under this alternative, assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project. While construction activities would unlikely include excavation of large amounts of soil, because contaminated soils were identified in association with the former VMT Auto Sales on Parcel B, Alternative 2 has the potential to encounter contaminated soil. Implementation of MM HAZ-1 and MM HAZ-2 would also apply to this alternative in order to reduce significant impacts to a level less than significant.

Overall, impacts on hazards and hazardous materials from Alternative 2 would be similar, but slightly reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in a similar environmental impact.

Hydrology and Water Quality

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation would result in significant, but mitigable, impacts due to changes in the hydrology of the project site. Implementation of MM HY-1 would also apply to this alternative in order to reduce significant impacts to a level less than significant.

Alternative 2 would not include construction and operation of commercial development. Under this alternative, assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project. Additionally, the land use designation open space would require minimal operational activities associated with maintenance. Similar to the proposed project, construction BMPs would be required as identified in the District's JRMP. If less than 1 acre of soil is disturbed then a SWPPP would not be required. Additionally, a post-construction SWQMP would be prepared per the District's BMP Design Manual. . Alternative 2 would result in less than significant impacts related to hydrology and water quality for construction or operation of open space on Parcels A, B, and C.

Overall, impacts on hydrology and water quality from Alternative 2 would be similar. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in a similar environmental impact.

Land Use and Planning

Under this alternative the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to conflict with applicable land use plans.

Alternative 2 would not include construction and operation of commercial development. Under this alternative, assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. The land use designation open space would be consistent with the PMP, the CCA, and the San Diego Bay INRMP.

Overall, impacts on land use and planning from Alternative 2 would be similar. Compared to the proposed project that would result in a less than significant impact, this alternative would result in a similar environmental impact.

Noise

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to result in noise or vibration impacts.

Alternative 2 would not include construction and operation of commercial development. Under this alternative, assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project. Pile driving and other construction equipment that could generate noise levels in excess of the City of San Diego's 75 dBA L_{eq} construction noise threshold would not be utilized. Additionally, the land use designation open space would require minimal operational activities associated with maintenance.

Overall, impacts associated with noise and vibration from Alternative 2 would be reduced. Compared to the proposed project that results in a significant and unavoidable impact, this alternative would create less of an environmental impact.

Public Services

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to result in impacts on public services.

Alternative 2 would not include construction and operation of commercial development. Under this alternative, assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project. Additionally, the land use designation open space would require minimal operational activities associated with maintenance. Construction and operation of an outlook, picnic area, or spur trail would not result in a greater need for fire protection than under existing conditions. Therefore, Alternative 2 would not result in the need for expanded fire protection facilities.

Overall, impacts on public services from Alternative 2 would be similar but slightly reduced. Compared to the proposed project that results in a less than significant impact, this alternative would result in a similar environmental impact.

Transportation

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to result in conflict with a program, ordinance, or policy addressing the circulation system transit roadway, bicycle, or pedestrian facilities or increase VMT.

Alternative 2 would not include construction and operation of commercial development. Under this alternative, assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project. However, similar to the proposed project, construction activities would not result in new VMTs because construction personnel are expected to be from the existing workforce in the surrounding area. The land use designation open space would not generate VMT from employees and due to the proximity of Parcels A, B, and C to existing trails and the Bayshore Bikeway, it is assumed the majority of users of any newly created outlook, picnic area, or spur trail, would be existing users of the surrounding land uses. The land use designation of open space would generate or attract fewer than 110 trips per day and would be assumed to cause a less than significant transportation impact per the *OPR Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR 2018). Therefore, a less than significant increase in VMT would occur from Alternative 2.

Overall, impacts on transportation from Alternative 2 would be reduced. Compared to the proposed project that results in a significant and unavoidable impact, this alternative would create less of an environmental impact.

Tribal Cultural Resources

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation would result in a potential significant, but mitigable, impact on TCRs. Implementation of MM TCR-1 would also apply to this alternative in order to reduce significant impacts to a level less than significant.

Alternative 2 would not include construction and operation of commercial development. Under this alternative, assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project and would include minimal amounts of ground disturbance, if any. Therefore, impacts on TCRs would be reduced; however monitoring for TCRs may still be required depending on the type of construction activities. Implementation of MM TCR-1 would also apply to this alternative in order to reduce significant impacts.

Overall, impacts on TCRs from Alternative 2 would be similar but slightly reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in a similar environmental impact.

Utilities and Service Systems

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to generate solid waste in excess of the capacity of local infrastructure and would not conflict with the attainment of solid waste reduction goals.

Alternative 2 would not include construction and operation of commercial development. Under this alternative, assumed 105,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project and would include minimal amounts of ground disturbance, if any. Therefore, the existing utilities on site would not need to be relocated.

Overall, impacts on utilities and service systems from Alternative 2 would be reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would create less of an environmental impact.

Conclusion – Alternative 2

As shown in Table 6-2, this alternative would meet most of the project objectives. However, the project objective of supporting economic development and community investment, in alignment with the District’s adoption of Board Policy No. 774¹, would not be met by the program-level component. As a result of not including commercial development on Parcels A, B, and C, this alternative does not maximize the economic benefit to the areas specified in Board Policy No. 774.

Under this alternative, significant and unavoidable impacts from GHG emissions, noise, and transportation would be avoided. Additionally, less than significant impacts associated with several resource areas would be reduced or avoided, including impacts on air quality, energy, geology and soils, and utilities and service systems. Impacts on aesthetics, biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, land use, public services, and TCRs would be similar to the proposed project.

Table 6-2. Attainment of Project Objectives – Alternative 2 Wetland Mitigation Bank and No Commercial Development on Parcels A, B, and C

Project Objective	Does Alternative 2 Meet Project Objective?
Incorporate the Bank Parcel into the PMP and assign a land use designation in order to be in compliance with the Port Act and CCA	Yes. A PMPA would be prepared, and the land use designation of wetlands would be assigned, which would be consistent with the PMP.
Create a wetland mitigation bank that produces revenue by offering the business community and government agencies the opportunity to purchase predeveloped wetland mitigation credits to mitigate project impacts on wetland habitat	Yes. The wetland mitigation bank would be created as described in this EIR. The wetland mitigation bank would produce revenue by selling wetland mitigation credits.
Enhance ecological functions at the Bank Parcel by providing forage and nesting habitat for native bird species and habitat for native fish species while also creating additional environmental co-benefits such as, but not limited to, carbon sequestration, nutrient cycling, and water quality filtration.	Yes. The wetland mitigation bank would be required to meet performance standards, which include creating foraging and nesting habitat for native bird species.



Table 6-2. Attainment of Project Objectives – Alternative 2 Wetland Mitigation Bank and No Commercial Development on Parcels A, B, and C

Project Objective	Does Alternative 2 Meet Project Objective?
Reduce the chance and scale of flooding within the surrounding off-site area through the Bank Parcel under the existing condition by designing greater capacity to contain stormwater and coastal waters within the Bank Parcel.	Yes. The wetland mitigation bank would be created as described in this EIR. The wetland mitigation bank would allow for coastal waters to enter the Bank Site and would reduce the chance and scale of flooding within the mobilehome parks that surround the project site.
Establish tidal influence and create coastal wetlands by reconnecting the Bank Site to tidal flows from San Diego Bay	Yes. The wetland mitigation bank would be created as described in this EIR. Tidal influence would be established to create coastal wetlands.
Provide long term protection of the Bank Site by reaching native vegetation coverage and sediment surface elevation success criteria, while providing access for long-term monitoring and restoration of wetlands, as needed.	Yes. The wetland mitigation bank would be required to meet performance standards, which include native vegetation coverage success criteria.
Incorporate the District-owned Parcels A, B, and C into the PMP and assign a land use designation in order to be in compliance with the Port Act and CCA.	Yes. A PMPA would be prepared, and this alternative would assign the land use designation of open space, which would be consistent with the PMP and CCA.
Support economic development and community investment consistent with the District’s adoption of BPC Policy No. 774 (i.e. the Pond 20 EDF).	No. Open space as a land use would not provide the District opportunities to generate revenue, as required by Board Policy No. 774.
Promote future development on Parcels A, B, and C that complements adjacent uses.	Yes. An open space designation would complement adjacent land uses.

Notes:

BPC=Board of Port Commissioners; CCA=California Coastal Act; EDF=economic development fund;
 EIR=environmental impact report; PMP=Port Master Plan; PMPA=Port Master Plan Amendment

6.5.3 Alternative 3: Wetland Mitigation Bank, Commercial Recreation on Parcels B and C, and Open Space on Parcel A

Aesthetics

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. Indirect impacts of construction activities on scenic vistas would be short term and restricted to the project site. After construction is complete, the visual character of the project site would be improved.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Under this alternative, Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, public access is limited to passive uses, such as outlooks, picnic areas, or spur trails. No new sources of glare would be introduced on Parcel A; however, these passive uses may require lighting. Implementation of MM AES-2 would also apply to this alternative in order to reduce significant impacts to less than significant.

Parcel B and C would be assigned the land use designation of commercial development, as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C.

Commercial development may introduce a new source of light or glare, which could be substantial. Implementation of MM AES-1 and MM AES-2 would also apply to this alternative in order to reduce significant impacts to a level less than significant.

Overall, impacts on aesthetics resources from Alternative 3 would be similar but slightly reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in a similar environmental impact.

Air Quality

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to result in any long-term regional air quality impacts, and the short-term air quality impacts from construction would be less than significant.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Under this alternative, Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, emissions from these construction activities would be substantially reduced compared to the proposed project. Additionally, the land use designation open space would require minimal operational activities associated with maintenance.

Parcel B and C would be assigned the land use designation of commercial development, as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C. Criteria pollutant emissions would be similar to the proposed project but would be proportionally reduced through the elimination of approximately 25,000 square feet of commercial development. However, the open space designation would allow for passive uses, which could contribute to pollutant emissions. It is expected that any future uses would not contribute emissions to the same extent as 25,000 square feet of commercial development.

Overall, impacts associated with air quality from Alternative 3 would be reduced. Compared to the proposed project that results in a less than significant impact, this alternative creates less of an environmental impact.

Biological Resources

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation would result in multiple significant, but mitigable, impacts on biological resources, including special status plant and wildlife species and jurisdictional wetlands. However, higher quality habitat for these resources would be created, as well as the creation of enhanced wetlands. Implementation of MM BR-1, MM BR-2, MM BR-3, MM BR-4, MM BR-5, MM BR-6, MM BR-9, and MM BR-10 would also apply to this alternative in order to reduce significant impacts to a level less than significant.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Under this alternative, Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Public access within open space areas is limited to passive uses, such as an outlook, picnic area, or spur trail. The open space designation may include limited use and/or transitional zones from biologically significant resources deserving protection and preservation. Any construction activities required to create an outlook, picnic area, or spur trail would be substantially reduced compared to the proposed project. Additionally, the wetlands associated with Parcels A and

C would be preserved, and efforts to protect and preserve biologically significant resources would occur. Therefore, biological resource impacts associated with future commercial development would be substantially reduced on Parcel A. This includes 0.57 acre of WOUS/WOS, 1.08 acre of CCC wetlands, and CDFW-regulated streambed. Additionally, several special status species have potential to occur on Parcel A, including special status plants: estuary seablite, salt marsh bird's-beak, Coulter's goldfields, Pacific saltbush, and Lewis's evening primrose, and special status wildlife species: Belding's savannah sparrow, California least tern, light-footed Ridgway's rail, western snowy plover, burrowing owl, northern harrier, loggerhead shrike, San Diego black-tailed jackrabbit, short-eared owl, Brant, bald eagle, black tern, large-billed savannah sparrow, black skimmer, orange-throated whiptail, and western red bat. While special status habitat would be preserved and protected to the extent feasible, construction may still disturb wildlife including nesting birds. Implementation of MM BR-8 would apply to this alternative in order to reduce significant impacts to less than significant.

Parcel B and C would be assigned the land use designation of commercial development as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C. Impacts on biological resources would be similar to the proposed project but would be proportionally reduced through the elimination of approximately 25,000 square feet of commercial development. Implementation of MM BR-1, MM BR-2, MM BR-3, MM BR-4, MM BR-5, MM BR-7, MM BR-8, and MM BR-10 would also apply to Parcels B and C under this alternative in order to reduce significant impacts to a level less than significant.

Therefore, impacts associated with the wetland mitigation bank and future commercial development on Parcels B and C would be the same as the proposed project, and impacts associated with future commercial development on Parcel A would be avoided.

Overall, impacts on biological resources from Alternative 3 would be similar, but slightly reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in a similar environmental impact.

Cultural Resources

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation would result in multiple significant impacts on cultural resources, including archaeological site CA-SDI-4360, WSC Salt Works District, and archaeological site CA-SDI-19712. Implementation of MM CR-1, MM CR-2, and MM CR-3 would also apply to this alternative in order to reduce significant impacts. Impacts on archaeological and historic sites CA-SDI-4360, WSC Salt Works District, and CA-SDI-19712 would be reduced to a level less than significant.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Under this alternative, Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project and would include minimal amounts of ground disturbance, if any. Additionally, the land use designation open space would require minimal operational activities associated with maintenance. Therefore, impacts on archaeological site CA-SDI-4360 would be reduced; however monitoring for cultural resources may still be required depending on the type of construction activities.

Parcel B and C would be assigned the land use designation of commercial development as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C.

Impacts on cultural resources would be similar to the proposed project but would be proportionally reduced through the elimination of approximately 25,000 square feet of commercial development. Implementation of MM CR-1 and MM CR-3 would also apply to Parcels A, B, and C under this alternative in order to reduce significant impacts to a level less than significant.

Therefore, impacts associated with the wetland mitigation bank and future commercial development on Parcels B and C would be the same as the proposed project, and impacts associated with future commercial development on Parcel A would be reduced.

Overall, impacts on cultural resources from Alternative 3 would be similar but slightly reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in a similar environmental impact.

Energy

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to result in wasteful, inefficient, or unnecessary consumption of energy resources, and impacts from construction and operation would be less than significant.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Under this alternative, Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project and would require less energy to construct. Additionally, the land use designation open space would require minimal operational activities associated with maintenance. Therefore, energy consumption for construction activities would be substantially reduced, and energy related to operations would be limited to potential light sources and fuel consumption by vehicles. Operational activities on Parcel A would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Parcel B and C would be assigned the land use designation of commercial development as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C. Impacts from energy consumption would be similar to the proposed project but would be proportionally reduced through the elimination of approximately 25,000 square feet of commercial development. However, as noted above, the open space designation would allow for passive uses which could contribute to energy consumption. It is expected that any future uses would not consume energy to the same extent as 25,000 square feet of commercial development. Similar to the proposed project, commercial development on Parcels B and C would not result in wasteful energy consumption; however, commercial development would still conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Implementation of MM GHG-1, and MM TRAN-1 would also apply to Parcels B and C under this alternative in order to reduce significant impacts to a level less than significant.

Therefore, impacts associated with the wetland mitigation bank and future commercial development on Parcels B and C would be the same as the proposed project and impacts associated with future commercial development on Parcel A would be reduced.

Overall, impacts on energy from Alternative 3 would be similar, but slightly reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in a similar environmental impact.

Geology and Soils

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to exacerbate strong seismic ground shaking, seismic-related ground failure, or liquefaction, result in substantial soil erosion, result in an unstable geologic unit or soil, or direct or indirectly destroy paleontological resources.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Under this alternative, Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction would not require ground disturbance below 10 feet which could potentially destroy paleontological resources. Any construction activities would be substantially reduced compared to the proposed project and would not require grading of the entire parcels or introduce new structures. Therefore, no changes in geologic conditions on Parcel A would occur that could result in liquefaction hazards, soil erosion, lateral spreading, or hazardous conditions resulting from expansive soils. Additionally, impacts on paleontological resources would be avoided.

Parcel B and C would be assigned the land use designation of commercial development as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C. Impacts from changes in geologic conditions would be similar to the proposed project, but would be proportionally reduced through the elimination of approximately 25,000 square feet of commercial development. Commercial development on Parcels B and C have the potential to directly or indirectly destroy paleontological resources. Implementation of MM GEO-1 would also apply to Parcels B and C under this alternative in order to reduce significant impacts to a level less than significant.

Therefore, impacts associated with the wetland mitigation bank and future commercial development on Parcels B and C would be the same as the proposed project, and impacts associated with future commercial development on Parcel A would be avoided.

Overall, impacts on geology and soils from Alternative 3 would be similar but slightly reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in a similar environmental impact.

Greenhouse Gas Emissions

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to exceed screening thresholds established by the county or conflict with the District CAP or long-term statewide emissions reduction goals.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project and would result in fewer GHG emissions. Additionally, the land use designation open space would require minimal operational activities associated with maintenance and limited open space users. Therefore, GHG emissions from construction or operation of an outlook, picnic area, or spur trail would be substantially reduced compared to the proposed project.

Parcel B and C would be assigned the land use designation of commercial development as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C.

Impacts from GHG emissions would be similar to the proposed project but would be proportionally reduced through the elimination of approximately 25,000 square feet of commercial development. However, as noted above, the open space designation would allow for passive uses, which could contribute to GHG emissions. It is expected that any future uses would not contribute to the same extent as 25,000 square feet of commercial development. Similar to the proposed project, commercial development on Parcels B and C would exceed the screening threshold established by the county, largely as a result of mobile emissions, and MM GHG-1, MM GHG-2, and MM TRAN-1 would be implemented to reduce GHG emissions. However, impacts would be significant and unavoidable with mitigation.

Therefore, impacts associated with the wetland mitigation bank would be the same as the proposed project. With no commercial development on Parcel A, GHG emissions would be reduced; however, impacts would remain significant and unavoidable due to the commercial development on Parcels B and C.

Overall, impacts on GHG emissions from Alternative 3 would be similar. Compared to the proposed project that results in a significant and unavoidable impact, this alternative would result in a similar environmental impact.

Hazards and Hazardous Materials

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation would result in significant, but mitigable, impacts due to contaminated soils at the project site.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project, and construction activities are unlikely to include excavation of large amounts of soil. Therefore, the potential to encounter contaminated soils on Parcel A would be less than significant.

Parcel B and C would be assigned the land use designation of commercial development as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C. Impacts from hazards and hazardous materials would be similar to the proposed project but would be proportionally reduced through the elimination of approximately 25,000 square feet of commercial development. Implementation of MM HAZ-1 and MM HAZ-2 would also apply to Parcels B and C under this alternative in order to reduce significant impacts to a level less than significant.

Therefore, impacts associated with the wetland mitigation bank and future commercial development on Parcels B and C would be the same as the proposed project, and impacts associated with future commercial development on Parcel A would be reduced.

Overall, impacts on hazards and hazardous materials from Alternative 3 would be similar but slightly reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in similar environmental impact.

Hydrology and Water Quality

Under this alternative the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation would result in significant, but mitigable, impacts due to changes in the hydrology of the project site. Implementation of MM HY-1 would also apply to this alternative in order to reduce significant impacts to a level less than significant.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project. Additionally, the land use designation open space would require minimal operational activities associated with maintenance. Similar to the proposed project, construction BMPs would be required, as identified in the District's JRMP. If less than 1 acre of soil is disturbed, then an SWPPP would not be required. Additionally, a post-construction SWQMP would be prepared per the District's BMP Design Manual.

Parcel B and C would be assigned the land use designation of commercial development as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C. Therefore, hydrology and water quality impacts associated with Parcels B and C would be the same as the proposed project.

Overall, impacts on hydrology and water quality from Alternative 3 would be similar. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in a similar environmental impact.

Land Use and Planning

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to conflict with applicable land use plans.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Parcel B and C would be assigned the land use designation of commercial development as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C. The land uses open space and commercial recreation would be consistent with the PMP, the CCA, and the San Diego Bay INRMP.

Overall, land use and planning impacts associated with Alternative 3 would be similar. Compared to the proposed project that results in a less than significant impact, this alternative would result in a similar environmental impact.

Noise

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to result in noise or vibration impacts.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic

area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project. Pile driving and other construction equipment that could generate noise levels in excess of the City of San Diego's 75 dBA L_{eq} construction noise threshold would not be utilized. Parcel B and C would be assigned the land use designation of commercial development as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C. Impacts from noise would be similar to the proposed project but would be proportionally reduced through the elimination of approximately 25,000 square feet of commercial development. Similar to the proposed project, commercial development on Parcels B and C would exceed City of San Diego's 75 dBA L_{eq} construction noise threshold and would result in vibration annoyance. MM NOI-1 would be implemented to reduce construction noise levels and vibration annoyance. However, impacts remain significant and unavoidable.

Overall, impacts associated with noise from Alternative 3 would be similar. Compared to the proposed project that results in a significant and unavoidable impact, this alternative would result in a similar environmental impact.

Public Services

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to result in impacts on public services.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Parcel B and C would be assigned the land use designation of commercial development as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C; however, similar to the proposed project impacts would be less than significant because Alternative 3 would not require new or expanded fire rescue facilities.

Overall, impacts on public services from Alternative 3 would be similar. Compared to the proposed project that results in a less than significant impact, this alternative would result in a similar environmental impact.

Transportation

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to result in conflict with a program, ordinance, or policy addressing the circulation system transit roadway, bicycle, or pedestrian facilities or increase VMT.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project. The land use designation of open space would generate or attract fewer than 110 trips per day and would be assumed to cause a less than significant transportation impact per the *OPR Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR 2018). The increase in VMT associated with 25,000 square feet of commercial development on Parcel A would not occur, and the minimal increase from the land use designation of open space would be less than significant.

Parcel B and C would be assigned the land use designation of commercial development as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C. As



shown in Table 6-3, daily VMT generated by Alternative 3 would be 13,760 miles. Similar to the proposed project, the impact threshold is no increase in regional VMT. An increase in daily VMT by 13,760 miles is considered a significant impact. Implementation of MM TRAN-1 would also apply to this alternative in order to reduce the significant impact. Similar to the proposed project, the TDM strategies identified would not be able to reduce VMT by 100 percent. Therefore, impacts remain significant and unavoidable.

Table 6-3. Vehicle Miles Traveled Analysis Results for Alternative 3

Land Use	Quantity	Trip Generation Rate	ADT	Average Trip Length (miles)	Daily VMT Generated
Specialty Retail/Strip Commercial	80,000 SF	40/KSF	3,200	4.3	13,760

Source: SANDAG 2002

Notes:

ADT=average daily traffic; KSF=thousand square feet; SF=square feet; VMT=vehicle miles traveled

Impacts associated with the wetland mitigation bank would be the same as the proposed project. With no commercial development on Parcel A, daily VMT would be reduced; however, impacts would remain significant and unavoidable due to the daily VMT associated with commercial development on Parcels B and C.

Overall, impacts on transportation from Alternative 3 would be similar. Compared to the proposed project that results in a significant and unavoidable impact, this alternative would result in a similar environmental impact.

Tribal Cultural Resources

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation would result in a potential significant, but mitigable, impact on TCRs. Implementation of MM TCR-1 would also apply to this alternative in order to reduce significant impacts to a level less than significant.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designations open space, construction may be required to create an outlook, picnic area, or spur trail; however, construction activities would be substantially reduced compared to the proposed project and would include minimal amounts of ground disturbance, if any. Therefore, impacts on TCRs would be reduced; however monitoring for TCRs may still be required depending on the type of construction activities.

Parcel B and C would be assigned the land use designation of commercial development as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C. Impacts on TCRs would be similar to the proposed project. Implementation of MM TCR-1 would also apply to Parcels A, B and C under this alternative in order to reduce significant impacts to a level less than significant.

Therefore, impacts associated with the wetland mitigation bank and future commercial development on Parcels B and C would be the same as the proposed project, and impacts associated with future commercial development on Parcel A would be reduced.

Overall, impacts on TCRs from Alternative 3 would be similar, but slightly reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in a similar environmental impact.

Utilities and Service Systems

Under this alternative, the wetland mitigation bank would be developed as described in this EIR. The wetland mitigation bank is not expected to generate solid waste in excess of the capacity of local infrastructure and would not conflict with the attainment of solid waste reduction goals.

Alternative 3 would not include construction and operation of commercial development on Parcel A. Parcel A would be assigned the land use designation of open space, and the assumed 25,000 square feet of commercial development assumed under a commercial recreation designation would not occur. Under the land use designation open space, no utilities would need to be relocated for commercial development on Parcel A.

Parcel B and C would be assigned the land use designation of commercial development as described in this EIR. Commercial development of up to 80,000 square feet could occur on Parcels B and C. Impacts on utilities and service systems would be similar to the proposed project. Implementation of MM BR-1, MM BR-2, MM BR-3, MM BR-4, MM BR-5, MM BR-7, MM BR-8, MM BR-10, MM CR-1, MM CR-3, and MM TCR-1 would also apply to Parcels B and C under this alternative in order to reduce significant impacts to a level less than significant.

Therefore, impacts associated with the wetland mitigation bank and future commercial development on Parcels B and C would be the same as the proposed project, and impacts associated with future commercial development on Parcel A would be avoided.

Overall, impacts on utilities and service systems from Alternative 3 would be similar, but slightly reduced. Compared to the proposed project that results in a significant impact requiring mitigation, this alternative would result in a similar environmental impact.

Conclusion – Alternative 3

As shown in Table 6-4, this alternative would meet most of the project objectives. However, the project objective of supporting economic development and community investment in alignment with the District's adoption of Board Policy No. 774¹, would not be met by the program-level component. By not including commercial development on Parcel A, this alternative does not maximize the economic benefits contemplated by Board Policy No. 774.

Under this alternative, impacts for all resource areas would be similar to the proposed project but slightly reduced for some resources. Significant and unavoidable impacts from GHG emissions noise, and transportation would be similar to the proposed project.



Table 6-4. Attainment of Project Objectives – Alternative 3 Wetland Mitigation Bank, Commercial Recreation on Parcels B and C, and Open space on Parcel A

Project Objective	Does Alternative 3 Meet Project Objective?
<p>Incorporate the Bank Parcel into the PMP and assign a land use designation in order to be in compliance with the Port Act and CCA.</p>	<p>Yes. A PMPA would be prepared, and the land use designation of wetlands would be assigned which would be consistent with the PMP.</p>
<p>Create a wetland mitigation bank that produces revenue by offering the business community and government agencies the opportunity to purchase predeveloped wetland mitigation credits to mitigate project impacts on wetland habitat</p>	<p>Yes. The wetland mitigation bank would be created as described in this EIR. The wetland mitigation bank would produce revenue by selling wetland mitigation credits.</p>
<p>Enhance ecological functions at the Bank Parcel by providing forage and nesting habitat for native bird species and habitat for native fish species, while also creating additional environmental co-benefits such as, but not limited to, carbon sequestration, nutrient cycling, and water quality filtration.</p>	<p>Yes. The wetland mitigation bank would be required to meet performance standards, which include creating foraging and nesting habitat for native bird species.</p>
<p>Reduce the chance and scale of flooding within the surrounding off-site area through the Bank Parcel under the existing condition by designing greater capacity to contain stormwater and coastal waters within the Bank Parcel.</p>	<p>Yes. The wetland mitigation bank would be created as described in this EIR. The wetland mitigation bank would allow for coastal waters to enter the Bank Site and would reduce the chance and scale of flooding within the mobilehome parks that surround the project site.</p>
<p>Establish tidal influence and create coastal wetlands by reconnecting the Bank Site to tidal flows from San Diego Bay</p>	<p>Yes. The wetland mitigation bank would be created as described in this EIR. Tidal influence would be established to create coastal wetlands.</p>
<p>Provide long-term Bank Site protection by reaching native vegetation coverage and sediment surface elevation success criteria, while providing access for long-term monitoring and restoration of wetlands, as needed.</p>	<p>Yes. The wetland mitigation bank would be required to meet performance standards, which include native vegetation coverage success criteria.</p>
<p>Incorporate the District-owned Parcels A, B, and C into the PMP and assign a land use designation in order to be in compliance with the Port Act and CCA.</p>	<p>Yes. A PMPA would be prepared, and this alternative would assign the land use designation of open space to Parcel A, and commercial recreation to Parcels B and C which would be consistent with the PMP.</p>
<p>Support economic development and community investment consistent with the District's adoption of BPC Policy No. 774 (i.e. the Pond 20 EDF).</p>	<p>No. Open space as a land use on Parcel A would not maximize the District's opportunities to generate revenue as required by Board Policy No. 774.</p>

Table 6-4. Attainment of Project Objectives – Alternative 3 Wetland Mitigation Bank, Commercial Recreation on Parcels B and C, and Open space on Parcel A

Project Objective	Does Alternative 3 Meet Project Objective?
Promote future development on Parcels A, B, and C that complements adjacent uses.	Yes. An open space or commercial recreation land use designation would complement adjacent land uses.

Notes:

BPC=Board of Port Commissioners; CCA=California Coastal Act; EIR=environmental impact report; PMP=Port Master Plan; PMPA=Port Master Plan Amendment

6.6 Environmentally Superior Alternative

As shown in Table 6-5, Alternative 1: No Project/No Wetland Mitigation Bank or PMPA Alternative is considered the environmental superior alternative to the proposed project as it would reduce or avoid impacts identified for the proposed project for all resource topics with the exception of land use and planning. However, CEQA Guidelines Section 15126.6(e)(2) states that “if the environmentally-superior alternative is the No Project Alternative, the EIR shall also identify an environmentally-superior alternative among the other alternatives.”

As shown in Table 6-5, Alternative 2: Wetland Mitigation Bank and No Commercial Development on Parcels A, B, and C would be the environmental superior alternative because this alternative would avoid significant and unavoidable impacts associated with GHG emissions, noise, and transportation. Additionally, less than significant impacts associated with several resource areas would be reduced or avoided, including impacts on air quality, energy, geology and soils, and utilities and service systems. However, the project objective of supporting economic development and community investment in alignment with the District’s adoption of Board Policy No. 774¹, would not be met by the program-level component. By not including commercial development on Parcels A, B, and C, this alternative does not maximize the economic benefits contemplated by Board Policy No. 774.



Table 6-5. Comparison of Alternative Impacts on Proposed Project

Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Wetland Mitigation Bank or PMPA Alternative	Alternative 2: Wetland Mitigation Bank and No Commercial Development on Parcels A, B, and C	Alternative 3: Wetland Mitigation Bank, Commercial Recreation on Parcels B and C, and Open space on Parcel A
Aesthetics	Project Level: LTS Program Level: LTS with Mitigation	Reduced No new sources of light or glare would be introduced.	Similar Less than significant short-term construction impacts would still occur. New light sources may be introduced for an outlook, picnic area, or spur trail, which would require mitigation to reduce impacts to less than significant.	Similar Less than significant short-term construction impacts would still occur. New sources of light or glare could be introduced on Parcels B and C, and new light sources may be introduced for an outlook, picnic area, or spur trail on Parcel A. Mitigation would be required to reduce impacts to less than significant.
Air Quality	Project Level: LTS Program Level: LTS	Reduced The existing baseline air emissions would remain the same as no new development would occur.	Reduced Less than significant short-term air quality impacts would still occur. Construction of an outlook, picnic area, or spur trail would result in substantially reduced criteria pollutant emissions.	Reduced Impacts would be similar to the proposed project; however, 25,000 square feet less of commercial development would occur, which would reduce criteria pollutant emissions.
Biological Resources	Project Level: LTS with Mitigation Program Level: LTS with Mitigation	Reduced Because no changes to the site would occur, this alternative would avoid potential direct and indirect impacts related to biological resources.	Similar This alternative would require similar mitigation to reduce significant impacts associated with the creation of the wetland mitigation bank. Impacts on special status plant and wildlife species and jurisdictional wetlands would be slightly reduced because commercial development would be avoided; however, mitigation would be required to reduce impacts to less than significant.	Similar This alternative would require similar mitigation to reduce significant impacts associated with the creation of the wetland mitigation bank, commercial development on Parcels B and C, and any construction activities required for an outlook, picnic area, or spur trail on Parcel A.

Table 6-5. Comparison of Alternative Impacts on Proposed Project

Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Wetland Mitigation Bank or PMPA Alternative	Alternative 2: Wetland Mitigation Bank and No Commercial Development on Parcels A, B, and C	Alternative 3: Wetland Mitigation Bank, Commercial Recreation on Parcels B and C, and Open space on Parcel A
Cultural Resources	Project Level: LTS with Mitigation Program Level: LTS with Mitigation	Reduced Because no development would occur under this alternative cultural resources would be avoided.	Similar This alternative would require similar mitigation to reduce significant impacts associated with the creation of the wetland mitigation bank. Construction of an outlook, picnic area, or spur trail has the potential to disturb cultural resources, which would require mitigation.	Similar This alternative would require similar mitigation to reduce significant impacts associated with the creation of the wetland mitigation bank, commercial development on Parcels B and C, and any construction activities required for an outlook, picnic area, or spur trail on Parcel A.
Energy	Project Level: LTS Program Level: LTS with Mitigation	Reduced The existing baseline energy demand would remain the same as no new development would occur.	Reduced Less than significant short-term energy impacts would still occur; however, additional impacts from construction or operation of commercial development would not occur.	Similar Impacts would be similar to the proposed project because commercial development would still occur, which could conflict with a state or local plan for energy efficiency without mitigation.
Geology and Soils	Project Level: LTS Program Level: LTS with Mitigation	Reduced Because no development would occur, this alternative would avoid the potential geology and soils impact.	Reduced Because construction of an outlook, picnic area, or spur trail would not require ground disturbing below 10 feet, the potential geology and soils impact would be avoided.	Similar Similar to the proposed project, a commercial development could require ground disturbing below 10 feet, which would require mitigation to reduce impacts on paleontological resources.



Table 6-5. Comparison of Alternative Impacts on Proposed Project

Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Wetland Mitigation Bank or PMPA Alternative	Alternative 2: Wetland Mitigation Bank and No Commercial Development on Parcels A, B, and C	Alternative 3: Wetland Mitigation Bank, Commercial Recreation on Parcels B and C, and Open space on Parcel A
GHG Emissions	Project Level: LTS Program Level: Significant and Unavoidable	Reduced The existing baseline GHG emissions would remain the same as no new development would occur.	Reduced Less than significant short-term GHG emissions associated with construction would still occur; however, this alternative would avoid a significant and unavoidable GHG emission impact from commercial development.	Similar Similar to the proposed project, commercial development on Parcels B and C would generate GHG emissions that exceed significance thresholds with mitigation.
Hazards and Hazardous Materials	Project Level: LTS with Mitigation Program Level: LTS with Mitigation	Reduced This alternative would avoid exposing workers to contaminated soils.	Similar This alternative would require similar mitigation to reduce significant impacts associated with the creation of the wetland mitigation bank; however, contaminated soils could be encountered during construction of an outlook, picnic area, or spur trail.	Similar Similar to the proposed project, a soil management plan and a site worker health and safety plan would be required.
Hydrology and Water Quality	Project Level: LTS with Mitigation Program Level: LTS	Reduced This alternative would avoid potential long-term scour at locations outside the District's jurisdiction.	Similar Because this alternative would create the wetland mitigation bank, mitigation would still be required to avoid potential long-term scour.	Similar Because this alternative would create the wetland mitigation bank, mitigation would still be required to avoid potential long-term scour.
Land Use and Planning	Project Level: LTS Program Level: LTS	Greater This alternative would not incorporate the parcels into the PMP, which would be in conflict with the Port Act.	Similar This alternative would incorporate all parcels into the PMP with compatible land uses.	Similar This alternative would incorporate all parcels into the PMP with compatible land uses.

Table 6-5. Comparison of Alternative Impacts on Proposed Project

Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Wetland Mitigation Bank or PMPA Alternative	Alternative 2: Wetland Mitigation Bank and No Commercial Development on Parcels A, B, and C	Alternative 3: Wetland Mitigation Bank, Commercial Recreation on Parcels B and C, and Open space on Parcel A
Noise	Project Level: LTS Program Level: Significant and Unavoidable	Reduced The existing baseline noise conditions would remain the same as no new development would occur.	Reduced Less than significant short-term noise impacts associated with the wetland mitigation bank would still occur; however, this alternative would avoid a significant and unavoidable noise impact from commercial development.	Similar Impacts would be similar to the proposed project. With mitigation, impacts would be significant and unavoidable.
Public Services	Project Level: No Impact Program Level: LTS	Reduced This alternative would not change the existing conditions of the site.	Similar This alternative would not impact public services.	Similar Similar to the proposed project, commercial development on Parcels B and C would not result in a significant impact on public services.
Transportation	Project Level: LTS Program Level: Significant and Unavoidable	Reduced This alternative would not increase VMT because no new development would be introduced. This alternative would avoid a significant and unavoidable impact.	Reduced This alternative would not increase VMT because no new development would be introduced. This alternative would avoid a significant and unavoidable impact.	Similar This alternative would increase daily VMT by 13,760 miles. With mitigation, impacts would be significant and unavoidable.
TCR	Project Level: LTS with Mitigation Program Level: LTS with Mitigation	Reduced Because no development would occur under this alternative, the potential impact associated with inadvertent discovery would be avoided.	Similar This alternative would require similar mitigation to reduce significant impacts associated with the creation of the wetland mitigation bank and an outlook, picnic area, or spur trail.	Similar This alternative would require similar mitigation to reduce significant impacts associated with the creation of the wetland mitigation bank, commercial development on Parcels B and C, and any construction activities required for an outlook, picnic area, or spur trail on Parcel A.



Table 6-5. Comparison of Alternative Impacts on Proposed Project

Environmental Issue Area	Proposed Project	Alternative 1: No Project/No Wetland Mitigation Bank or PMPA Alternative	Alternative 2: Wetland Mitigation Bank and No Commercial Development on Parcels A, B, and C	Alternative 3: Wetland Mitigation Bank, Commercial Recreation on Parcels B and C, and Open space on Parcel A
Utilities and Service Systems	Project Level: LTS Program Level: LTS with Mitigation	Reduced This alternative would not change the existing conditions of the site and there would be no need to relocate utilities.	Reduced This alternative would avoid the potential need to relocate utilities.	Similar This alternative would require similar mitigation to reduce significant impacts associated with potential relocation of utilities on Parcel C.

Notes:

GHG=greenhouse gas; LTS=less than significant; PMP=Port Master Plan; VMT=vehicle miles traveled; TCR=tribal cultural resources

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7.3 Technical Reports

7.3.1 Traffic Report – Chen Ryan Associates

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Rebecca Malone	City of San Diego
Kristy Forburger	City of San Diego
Elena Pascual	City of San Diego
Michael Prinz	City of San Diego
Mark McCumsey	Caltrans, District 11



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Chapter 1 Introduction

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Chapter 3 Environmental Analysis

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