

Draft Initial Study & Mitigated Negative Declaration

Southern Los Cerritos Wetlands Restoration Project

April 2023



**Lead Agency:
Los Cerritos Wetlands Authority**

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List of Acronyms and Abbreviations

AB 52	Assembly Bill 52
ArcGIS	Global Information System
BACT	Best Available Control Technology
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model®
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCC	California Coastal Commission
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CEQA	California Environmental Quality Act
CEQA Guidelines	Section 15070 of the State Guidelines for Implementation of the California Environmental Quality Act of 1970
CFP	California Fully Protected Species
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Data Base
CRP	Conceptual Restoration Plan
CRPR	California Rare Plant Rank
CSC	California Species of Special Concern
CUPA	Certified Unified Program Agency
DAMP	Orange County Drainage Area Management Plan
EIR	Environmental Impact Report
ERL	Effects Range Low
ERM	Effects Range Medium
FIRM	Flood Insurance Rate Map
HABS	Historic American Buildings Survey
HAER	Historic American Engineering Record
HALS	Historic American Landscapes Survey
I-405	Interstate 405
I-605	Interstate 605
IS	Initial Study
IS/MND	Initial Study and Mitigated Negative Declaration
LADWP	City of Los Angeles Department of Water and Power
LCWA	Los Cerritos Wetlands Authority
LST	Localized Significance Thresholds
MAMP	Monitoring and Adaptive Management Plan
MLD	Most Likely Descendant
MLLW	Mean Lower Low Water
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
NAAQS	National Ambient Air Quality Standards

List of Acronyms and Abbreviations (continued)

NAHC	Native American Heritage Commission
NAVD	North American Vertical Datum
NCCP	Natural Community Conservation Plan
ND	Negative Declaration
NGVD	National Geodetic Vertical Datum
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
PCH	Pacific Coast Highway
PEIR	Program Environmental Impact Report
Program Area	Los Cerritos Wetlands Restoration Plan Program Area
Project	Southern Los Cerritos Wetlands Restoration Project
RMC	San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy
RWQCB	Regional Water Quality Control Board
SCAQMD	South Coast Air Quality Management District
SCC	State Coastal Conservancy
SLCWRP	Southern Los Cerritos Wetlands Restoration Project
SR-1	State Route 1; Pacific Coast Highway
SR-22	State Route 22
SRA	Source Receptor Areas
TCP	Traditional Cultural Property
TMDL	Total Maximum Daily Loads
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VMT	Vehicle Miles Traveled
WEAP	Worker Education Awareness Program

1 INTRODUCTION

1.1 Summary

The Los Cerritos Wetlands Authority has determined that the proposed Southern Los Cerritos Wetlands Restoration Project (SLCWRP), or “Project”, and the required discretionary actions of Los Cerritos Wetlands Authority for the Project require compliance with the guidelines and regulations of the California Environmental Quality Act (CEQA). This Initial Study and Mitigated Negative Declaration (IS/MND) addresses the direct, indirect, and cumulative environmental effects associated with the proposed Project.

The Los Cerritos Wetlands Authority (LCWA), as the Lead Agency pursuant to CEQA, is proposing to implement an individual restoration project within the 503-acre Los Cerritos Wetlands Restoration Plan Program Area (Program Area). The Program Area contains large expanses of open space, including wetland habitat, as well as other uses, as described in more detail in the Los Cerritos Wetlands Restoration Plan Program Environmental Impact Report (PEIR). The PEIR serves as a first-tier environmental document that focuses on the overall effects of implementing the activities that make up the program. As a first-tier environmental document, the PEIR serves as the foundation for this subsequent project-level CEQA analysis. While the PEIR documents considered the potential for environmental impacts from all potential projects under the program, this Mitigated Negative Declaration (MND) seeks to eliminate and/or minimize impactful aspects of the proposed SLCWRP wherever feasible.

The LCWA, founded in 2006, is a joint powers authority consisting of the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (RMC), State Coastal Conservancy (SCC), and cities of Seal Beach and Long Beach. The mission of the LCWA is to provide a comprehensive program of acquisition, protection, conservation, restoration, maintenance and operation, and environmental enhancement of the Los Cerritos Wetlands Complex, consistent with the goals of flood protection, habitat protection and restoration, and improved water supply, water quality, groundwater recharge, and water conservation. The LCWA currently owns 165 acres within the Program Area, of which 100 acres are found within the 103.5-acre SLCWRP site.

This IS/MND has been prepared in conformance with the California Environmental Quality Act of 1970, as amended (Public Resources Code Section 21000 *et seq.*); Section 15070 of the State Guidelines for Implementation of the California Environmental Quality Act of 1970 (“CEQA Guidelines”), as amended (California Code of Regulations [CCR], Title 14, Chapter 3, Section 15000 *et seq.*), and applicable requirements of the Lead Agency.

This IS/MND has determined that the proposed Project would not result in any additional potentially significant environmental impacts that were not identified in the PEIR. While no new mitigation measures are proposed in this document, those that are provided in the PEIR Mitigation Monitoring and Reporting Program (MMRP) will be adhered to and will reduce any potentially significant impact to less than significant levels. As such, an IS/MND is deemed as the appropriate document to provide the necessary environmental evaluations and clearance. The LCWA determined that a MND is sufficient under the process outlined by the PEIR and Sections 15070(a) and 15168(c) of the CEQA Guidelines. As noted in the Project Description: “Since the LCWA finds that no new significant effects or substantially more severe environmental effects would occur due to the implementation of the Project, pursuant to CEQA Guidelines Section 15162, the LCWA finds it appropriate to document this finding by preparing a MND. The LCWA Governing Board will need to consider this MND and the Final PEIR when making decisions about this individual Project. An Initial Study checklist is being prepared as part of the MND that addresses each impact statement provided in the PEIR, which directly relates to the thresholds provided in Appendix G of the CEQA Guidelines.

1.2 Statutory Authority and Requirements

In accordance with CEQA (Public Resources Code Sections 21000-21177) and pursuant to Section 15063 of the CEQA Guidelines set forth at Title 14 of the CCR, the Lead Agency for the Project is undergoing environmental review in this document. Acting in the capacity of CEQA Lead Agency, LCWA is required to undertake the preparation of an Initial Study (IS) to provide information to use as the basis for determining whether an Environmental Impact Report (EIR), Negative Declaration (ND), or Mitigated Negative Declaration (MND) would be appropriate for providing the necessary environmental documentation for the proposed Project.

The purpose of an IS is to: (1) identify potential environmental impacts; (2) provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR or ND/MND; (3) enable the project sponsor/applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared; (4) facilitate environmental assessment early in the design of a project; (5) provide documentation of the factual basis for the finding in a MND that a project would not have a significant environmental effect; (6) eliminate needless EIRs; (7) determine whether a previously prepared EIR could be used for a project; and (8) assist in the preparation of an EIR, if required, by focusing the EIR on the effects determined to be significant, identifying the effects determined not to be significant, and explaining the reasons for determining that potentially significant effects would not be significant.

Section 15063 of the CEQA Guidelines identifies global disclosure requirements for inclusion in an IS. Pursuant to those requirements, an IS must include: (1) a description of the project, including the location of the project; (2) an identification of the environmental setting; (3) an identification of environmental effects by use of a checklist, matrix or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries; (4) a discussion of ways to mitigate significant effects identified, if any; (5) an examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls; and (6) the name of the person or persons who prepared or participated in the preparation of the IS.

According to Section 15065(a) of the CEQA Guidelines, an EIR must be prepared for a project if any of the following conditions occur:

- The project has the potential to: substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory.
- The project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
- The project has possible environmental effects that are individually limited but cumulatively considerable. “Cumulatively considerable” 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.
- The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.

According to Section 15070(a) of the CEQA Guidelines, a MND is deemed appropriate if the IS shows that there is no substantial evidence, in light of the whole record before the Lead Agency, that the project may have a significant effect on the environment.

1.3 Intended Uses of this Initial Study and Mitigated Negative Declaration

This IS/MND is intended to be an informational document for the LCWA, the general public, and for responsible agencies to review and use when approving subsequent discretionary actions for the Project. The resulting documentation is not a policy document, and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and other discretionary approvals would be required.

The Notice of Intent (NOI) to Adopt a MND and supporting analysis is subject to a 30-day public and agency review period (April 10 to May 10). During this review, comments on the document should be addressed to the LCWA (LCWA@tidalinfluence.com). A virtual public meeting will be held on April 27, 2023 from 6:00-7:30pm (details can be found on the project website – link at end of this paragraph). Following review of any comments received, LCWA will consider these comments as a part of this Project’s environmental review and include them with the IS/MND documentation for consideration by LCWA. This document is available at the Mary Wilson Library (707 Electric Avenue, Seal Beach, CA, 90740) and Bayshore Library (195 Bay Shore Avenue, Long Beach, CA 90803) and/or at this website: [Southern Los Cerritos Wetlands Restoration Project – Into Los Cerritos Wetlands \(https://intoloscerritoswetlands.org/southern-los-cerritos-wetlands-restoration-project/\)](https://intoloscerritoswetlands.org/southern-los-cerritos-wetlands-restoration-project/).

1.4 Supportive Documentation

1.4.1 Incorporation by Reference

Incorporation by reference is a procedure for reducing the size of environmental documents and is most appropriate for including long, descriptive, or technical materials that provide general background information but do not contribute directly to the specific analysis of the project itself. This procedure is particularly useful when an EIR or MND relies on a broadly drafted EIR for its evaluation of cumulative impacts of related projects. (*Las Virgenes Homeowners Federation v. County of Los Angeles* (1986) 177 Cal.App.3d 300.) If an EIR or MND relies on information from a supporting study that is available to the public, the EIR or MND cannot be deemed unsupported by evidence or analysis (*San Francisco Ecology Center v. City and County of San Francisco* (1975) 48 Cal.App.3d 584, 595.). This document incorporates by reference the Los Cerritos Wetlands Restoration Plan PEIR.

When an EIR or MND incorporates a document by reference, the incorporation must comply with Section 15150 of the CEQA Guidelines as follows:

- The incorporated document must be available to the public or be a matter of public record (CEQA Guidelines Section 15150(a)).
- This document must summarize the portion of the document being incorporated by reference or briefly describe information that cannot be summarized (CEQA Guidelines Section 15150(c)).
- The material to be incorporated in this document will include general background information (CEQA Guidelines Section 15150(f)).

1.4.2 Technical Studies

This IS/MND also uses information provided in the following document(s):

- Southern Los Cerritos Wetlands Restoration Project Basis of Design Components (M&N Design Team = Moffatt & Nichol, CRC, and Anchor QEA; 2023; Appendix B)
- Southern Los Cerritos Wetlands Restoration Project Air Quality/Greenhouse Gas Study (Moffatt & Nichol, 2023; Appendix C)

- Southern Los Cerritos Wetlands Restoration Project Biological Resources Report (Tidal Influence, 2021a; Appendix D)
- Southern Los Cerritos Wetlands Restoration Project Jurisdictional Delineation Report (Tidal Influence, 2021b; Appendix E)
- Cultural Resources Assessment for the Southern Los Cerritos Wetlands Restoration Project (Cogstone, 2023; Appendix F)
- Southern Los Cerritos Wetlands Restoration Project Sampling and Analysis Report (Anchor QEA, 2022; Appendix G)
- 65% Southern Los Cerritos Wetlands Restoration, Phases 1 and 2 Hydraulic and Hydrology Modeling (Moffatt & Nichol, 2022; Appendix H)

2 INITIAL STUDY / ENVIRONMENTAL CHECKLIST

2.1 Project Title

Southern Los Cerritos Wetlands Restoration Project

2.2 Lead Agency

Los Cerritos Wetlands Authority

2.3 Project Contact

Salian Garcia
c/o Los Cerritos Wetlands Authority
100 N. Old San Gabriel Canyon Road
Azusa, CA 91702
Info@rmc.ca.gov

2.4 Project Sponsor

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Los Cerritos Wetlands Authority
100 N. Old San Gabriel Canyon Road
Azusa, CA 91702

2.5 Project Location

The proposed project is located within the City of Seal Beach within the northwestern portion of Orange County, California. The City of Seal Beach is bounded by the City of Long Beach to the west, the City of Los Alamitos and the neighborhood of Rossmoor to the north, and the cities of Huntington Beach, Westminster, and Garden Grove to the east. The Pacific Ocean borders the City of Seal Beach to the south. The U.S. Naval Weapons Station Seal Beach and Seal Beach National Wildlife Refuge are located within Seal Beach City boundaries to the southeast of the Project (Figure 1).

Regional access to the Project site is provided by Interstate 405 (I-405) and Interstate 605 (I-605) as well as State Route 22 (SR-22) which terminates as 7th Street. Pacific Coast Highway (PCH, SR-1) traverses the area from the northwest corner to the southeast corner. Locally, 2nd Street/Westminster Boulevard, Loynes Drive, Seal Beach Boulevard, and 7th Street all provide east/west connections (Figure 2).

The Project site is located in west Seal Beach, adjacent to the border of Orange County and Los Angeles County in Southern California. Two major waterways are present in the vicinity: the San Gabriel River and the Haynes Cooling Channel. A smaller relic tidal channel, called the Hellman Channel, is also present within the Project site and drains to the San Gabriel River.

The proposed project boundary totals approximately 103.5 acres of land and water and falls completely within the South Area of the Program Environmental Impact Report (PEIR) (see Section 2.8, Figure 2). This project includes portions of two individual sites (South LCWA and State Lands Parcel) and borders two additional individual sites (Haynes Cooling Channel and Hellman Retained) identified in the PEIR.



Figure 1: Regional Location

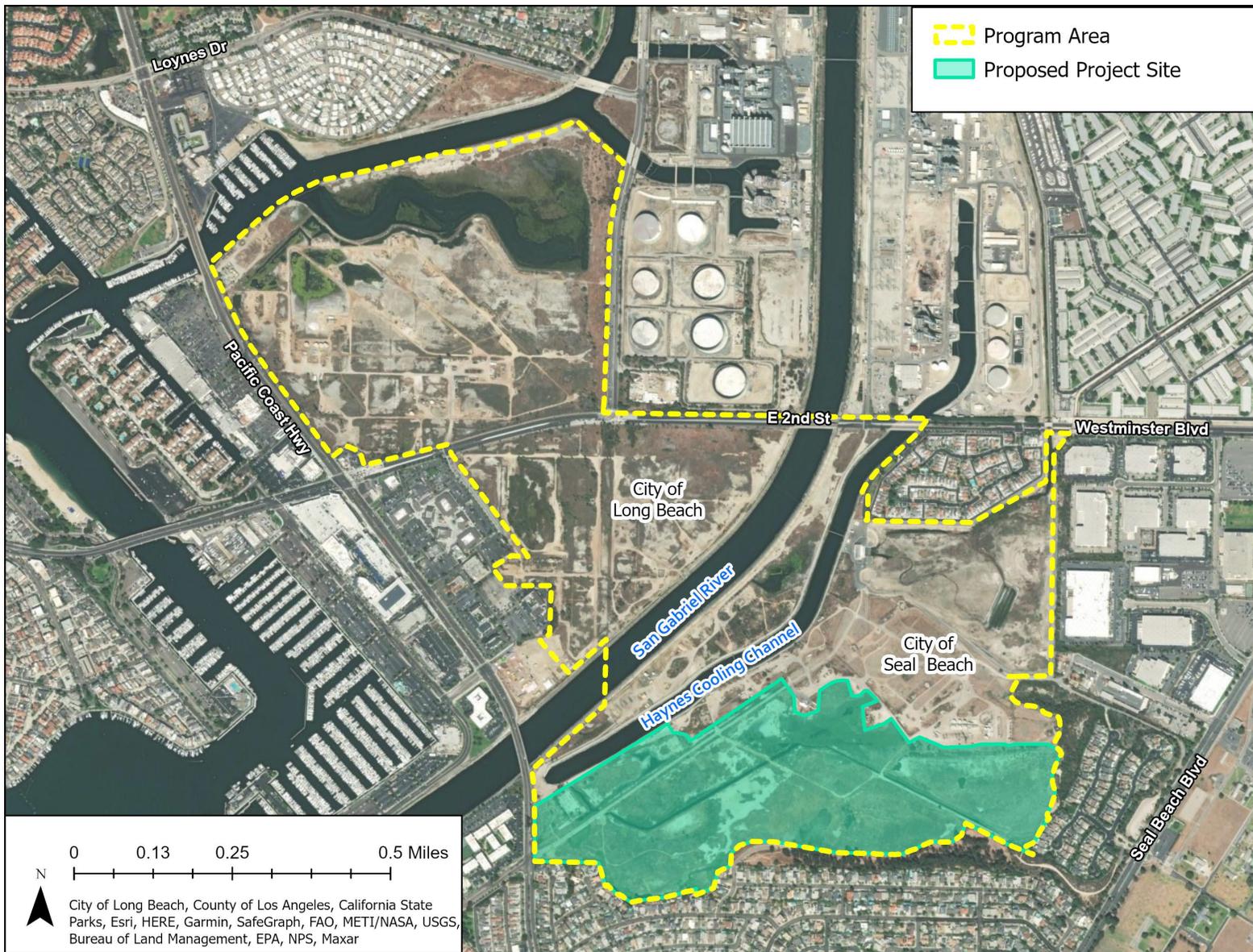


Figure 2: Project Vicinity

2.6 General Plan / Zoning Designations

The Project Site is located entirely within the California Coastal Zone, which means it is subject to the California Coastal Act.

The project is located entirely within the City of Seal Beach. The Seal Beach General Plan designates the land use as Community Facilities, Industrial – Oil Extraction, Open Space, and Commercial Service.

According to the Seal Beach zoning map (Marina Hill, Hellman Ranch & Boeing Facility), the project site falls within the Open Space Natural and Specific Plan Regulation (Hellman Ranch Specific Plan, City of Seal Beach, 2013).

2.7 Environmental Setting and Surrounding Land Uses

The proposed project area is located on approximately 103.5 acres of land on the border of Los Angeles and Orange Counties in the City of Seal Beach. It is bounded by the Haynes Cooling Channel to the northwest, PCH to the west, oil extraction fields to the north, residential and industrial to the east, and residential to the south.

2.8 Project Background

Until the late 1800s, the wetlands within and beyond the Program Area, collectively known as the Los Cerritos Wetlands Complex, spanned approximately 2,400 acres, and consisted of a network of tidal channels, vegetated wetlands, and upland areas. Historically, the Los Cerritos Wetlands Complex was almost entirely tidal wetland, with a few natural streams and intertidal flat channels.

Beginning in the late 1800s, the Los Cerritos Wetlands Complex began to undergo significant alterations due to cattle and beet farming, the demands of a growing population, and oil extraction. Oil was first discovered at the Seal Beach Oil Field in 1926. The development of oil production operations, paired with channelization of the San Gabriel River, resulted in substantial dredging, and fill of the Los Cerritos Wetlands Complex. Today, a large portion of the Program Area has been converted from its historic wetland habitat, though a few remnants and degraded historic habitats remain.

This Draft IS/MND has been prepared by the LCWA to assess restoration designs for the 103.5-acre South Los Cerritos Wetlands Restoration Project Area which is part of the larger 503-acre Los Cerritos Wetlands Restoration Plan developed by the LCWA. The LCWA owns 100 of the 103.5-acre project area, with the State of California State Lands Commission owning the other 3.5 acres.

2.8.1 Conceptual Restoration Plan, Program Environmental Impact Report and Habitat Restoration Plan

The first major step in the design process for the restoration of the Los Cerritos Wetlands Complex was the development of the Los Cerritos Wetlands Final Conceptual Restoration Plan (CRP; Moffatt & Nichol, 2014). The CRP is a restoration alternatives analyses report that provides the LCWA with a roadmap for habitat enhancement and improved public access for the Los Cerritos Wetlands Complex. Adopted by the LCWA Governing Board in August 2015, the CRP identifies goals and objectives and restoration design alternatives under a range of sea-level rise scenarios. The report was prepared with input by the LCWA Steering Committee (made up of staff representing agencies of the LCWA joint powers authority), a Technical Advisory Committee (comprised of representatives of twenty (20) resource and permitting agencies, and research groups covering federal, state, regional, and local jurisdictions), and the public (based on input during six (6) community workshops).

In 2017, LCWA received funding to further the design of the alternatives identified in the CRP with the development of a program-level restoration design, to prepare a PEIR, and to prepare a Los Cerritos Wetlands

Optimized Restoration Plan (approved as the Habitat Restoration Plan). The PEIR was certified by the LCWA Governing Board in January 2021, and the Los Cerritos Wetlands Habitat Restoration Plan was subsequently adopted in July 2021. The proposed program, along with alternatives to the proposed program described in Chapter 5 of the PEIR, were identified based on input from the LCWA Steering Committee (made up of staff representing agencies of the LCWA joint powers authority), a Technical Advisory Committee (representatives of 20 resource and permitting agencies, and research groups covering federal, state, regional, and local jurisdictions), and the public (based on input during 2 community workshops). The PEIR evaluated the environmental impacts associated with the proposed overall program.

The PEIR states that future phases of the restoration would involve identifying individual projects, performing required analyses and field surveys (e.g., wetland delineation reports, habitat surveys, archaeological and cultural surveys, soil samplings, etc.), engaging stakeholders, and developing more detailed, project-level designs (e.g., engineering designs, grading plans). As each individual restoration project is proposed, it will be evaluated for consistency with the PEIR Goals and Objectives and the Los Cerritos Wetlands Habitat Restoration Plan. Individual restoration projects will be developed with input from public agencies, tribal representatives, stakeholders, landowners, and the community, and adopted by the LCWA Governing Board.

The Los Cerritos Wetlands Habitat Restoration Plan was similarly vetted by the public and technical advisors. The Restoration Plan was developed to provide refined restoration plans specifically for near-term projects like the Southern Los Cerritos Wetlands Restoration Project (Project) that are expected to tier from the PEIR within 10 years of approval.

2.8.2 Southern Los Cerritos Wetlands Restoration Project

In 2021, the LCWA acquired funding to pursue project-level planning for a portion of the Program's South Area. As required by CEQA Guidelines Section 15168(c), subsequent activities in furtherance of a program (or plan) must be examined in the light of the PEIR to determine whether additional environmental documentation must be prepared. As Lead Agency, the LCWA has determined that the SLCWRP is within the scope of the PEIR. Due in part to the project tiering from the program within a relatively short period of the certification date, there have been no changes in circumstances on-site under which the project is undertaken. Likewise, no new information has been discovered that was not known and could not have been known with the exercise of reasonable diligence at the time the PEIR was certified. Finally, the effects of changes caused by the SLCWRP are consistent with the PEIR analysis (CEQA Guidelines Sections 15162[a][2], 15162[a][3], and 15168[c][2]).

Since the LCWA finds that no new significant effects or substantially more severe environmental effects would occur due to the implementation of the SLCWRP, pursuant to CEQA Guidelines Section 15162, the LCWA finds it appropriate to document this finding by preparing a Mitigated Negative Declaration (Appendix A). The LCWA Governing Board will need to consider this MND and the Final PEIR when making decisions about this individual project. An Initial Study checklist is being prepared as part of the MND that addresses each impact statement provided in the PEIR, which directly relates to the thresholds provided in Appendix G of the CEQA Guidelines.

2.8.3 Project Site Conditions and Ownership

The Project site is composed of two parcels (South LCWA site and State Lands Parcel) and totals approximately 103.5 acres of land. Information in this section addresses existing land uses, current land ownership for this and adjacent properties, land managers, habitat types, known presence of special-status plant and animal species, vehicular access, and existing public access opportunities (Appendix B). Determination of habitat types and presence of special-status plants and animal species (Appendices D and E), and focused field observations were completed by PEIR project team biologists. This section is also informed by the field observations during site visits conducted by architectural historian and cultural resource specialists (Appendix F) and PEIR project team engineers. Figure 3 shows the Project site and surrounding properties.

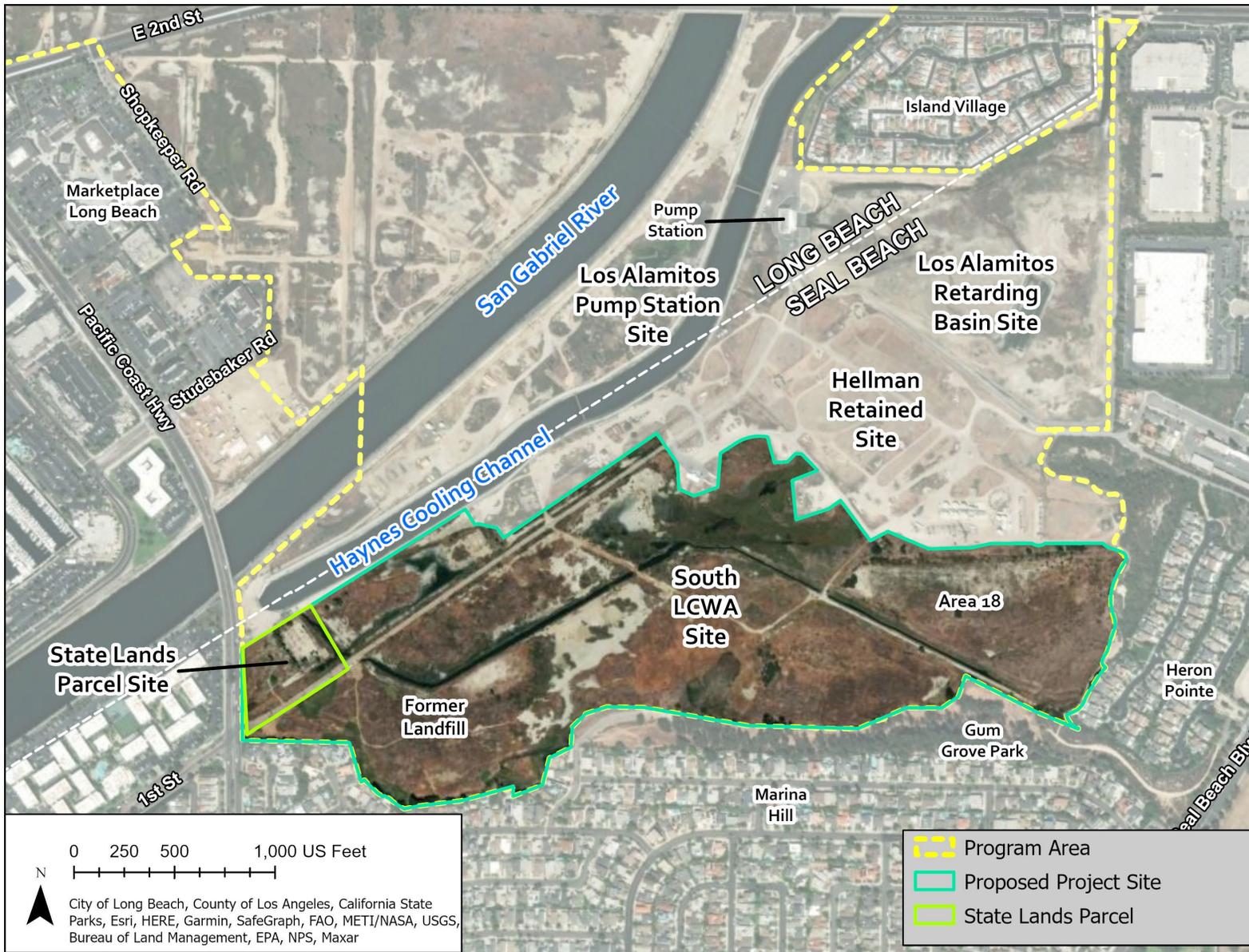


Figure 3: Project Site

The State Lands Parcel site is owned by the State Lands Commission. The site is approximately 3.5 acres in area and contains the remnant building foundation of what was once a music venue called the Airport Club and Marina Palace. Major habitat types include ruderal uplands and southern coastal salt marsh with a muted tidal connection in the channel that runs along the south of the parcel. Portions of the site that do not contain the remnant building foundation support one special-status plant. Access to the site is available via an existing gated driveway on 1st Street.

The South LCWA site is approximately 100 acres in area and contains multiple former sumps, landfills, and contaminated areas from prior oil operations, and is currently owned and maintained by the LCWA. Some areas of tidal southern coastal salt marsh still persist on the site, but other areas were converted by previous landowners. Conversion from coastal salt marsh habitat to primarily ruderal uplands with no tidal connections occurred due to extensive filling of the property from dredged material associated with the excavation of the San Gabriel River Channel and the Haynes Cooling Channel in the 1950s and 1960s. Former access roads still bisect the site and cause ecological and hydrological fragmentation. Remnant geomorphic features include historic southern coastal bluffs. The site is accessed via a gated private road on 1st Street.

The Hellman Channel, a small, muted tidal channel that connects to the San Gabriel River through a culvert that jogs around the southern end of the Haynes Cooling Channel and above the siphons connecting the cooling channel to the Alamitos Bay Marina. The Hellman Channel provides habitat for several special-status animal and plant species. The Hellman Channel historically served as the drainage ditch across the former Hellman property and, therefore, is a linear feature that extends upstream into the eastern portion of the site. It presently conveys seawater from the river into the South LCWA site and provides the hydrology for existing salt marsh habitat on-site.

The Haynes Cooling Channel is a waterway located northwest of the Project Area that is used by the Haynes Generating Station to supply water from the Pacific Ocean via seven culverts in the Alamitos Bay Marina to cool the power plant through a method called once-through cooling. Once the water is used, it is discharged into the San Gabriel River slightly upstream of where the river crosses under 2nd Street. The Haynes Generating Station, owned and operated by the City of Los Angeles Department of Water and Power (LADWP), is a natural gas and steam power plant that was built in the mid-1960s. The Haynes Generating Station is undergoing a modernization project that would eliminate the use of ocean water to cool the power plant by 2029. Once the modernization project is completed, the Haynes Cooling Channel will be decommissioned and no longer be in use for the Haynes Generating Station. That channel is proposed as the source of seawater to the project site for the second phase of the project.

The Hellman Retained site is an active oil field with substantial oil operation infrastructure (pipelines, pumps, tanks, and roadways) located north of the project site. There are 43 active oil wells and 11 idle oil wells on site. The Hellman Retained site is owned and operated by Hellman Properties, LLC. Historically, the site was primarily coastal salt marsh habitat; today the parcel is composed mostly of ruderal uplands with no tidal connection. Past surveys indicate that the Hellman Retained site may host several special status plant species. Access to the site is available via a gated private road on 1st Street.

The Project site has some existing public access located just outside the program boundary. A small public parking lot located off of Seal Beach Boulevard provides access to the Hellman Ranch Trail. The trail runs west and north between the Heron Pointe residential neighborhood and the South Area and includes interpretive signage, benches, and a gathering area. The north end of the trail ends at a locked gate at the boundary of the oil operations. The Hellman Ranch trail also connects west to the Gum Grove Trail in Gum Grove Park and is served by a second, small, public parking area accessed from Avalon Drive along the south program boundary. Gum Grove Trail and Hellman Ranch Trail combine to provide approximately a 1-mile-long trail just outside the Project site. A gated and locked access drive from 1st Street provides occasional guided access to restricted areas within the site. The City of Seal Beach owns Gum Grove Park, and a private residential community owns Heron Pointe.

2.9 Los Cerritos Wetlands Restoration Plan Goals and Objectives

The goals and objectives of the proposed project are presented below and are consistent with the goals and objectives identified in the Final PEIR (LCWA, 2021):

Goal #1. Restore tidal wetland processes and functions to the maximum extent possible.

Objectives:

- a. Increase estuarine habitat with a mix of tidal channels, mudflat, salt marsh, and brackish/ freshwater marsh and ponds.
- b. Provide adequate area for wetland-upland ecotone and upland habitat to support wetlands.
- c. Restore and maintain habitat that supports important life history phases for species of special concern (e.g., federal and state listed species), essential fish habitat, and migratory birds as appropriate.
- d. Solicit and address feedback on restoration design from members of the community, Native American tribes, and other interested parties.

Goal #2. Maximize contiguous habitat areas and maximize the buffer between habitat and sources of human disturbance.

Objectives:

- a. Maximize wildlife corridors within the LCW Complex and between the LCW Complex and adjacent natural areas within the region.
- b. Incorporate native upland vegetation buffers between habitat areas and human development to mitigate urban impacts (e.g., noise, light, unauthorized human encroachment, domestic animals, wastewater runoff) and reduce invasion by non-native organisms.
- c. Design the edges of the LCW Complex to be respectful and compatible with current neighboring land uses.

Goal #3. Create a public access and interpretive program that is practical, protective of sensitive habitat and ongoing oil operations, economically feasible, and will ensure a memorable visitor experience.

Objectives:

- a. Build upon existing beneficial uses.
- b. Minimize public impacts on habitat/wildlife use of the LCW Complex.
- c. Design interpretive concepts that promote environmental stewardship and the connection between the wetlands and the surrounding community.
- d. Solicit and address feedback from members of the surrounding community, Native American tribes, and other interested parties.
- e. Encourage equitable access of the LCW as a regional resource.

Goal #4. Incorporate phasing of implementation to accommodate existing and future potential changes in land ownership and usage, and as funding becomes available.

Objectives:

- a. Include projects that can be implemented as industrial operations are phased out and other properties are acquired over the near, mid, and long terms (next 10 years, 10– 20 years, and 20+ years).
- b. Investigate opportunities to restore levels of tidal influence that are compatible with current oil leases and neighboring private land holdings.
- c. Remove/realign/consolidate existing infrastructure (roads, pipelines, etc.) and accommodate future potential changes in infrastructure, to the maximum extent feasible.

Goal #5. Strive for long-term restoration success.

Objectives:

- a. Implement an adaptive management framework that is sustainable.
- b. Restore habitats in appropriate areas to minimize the need for long-term maintenance activities that are extensive and disruptive to wildlife.
- c. Design habitats that will accommodate climate changes (e.g., incorporate topographic and habitat diversity and natural buffers and transition zones to accommodate migration of wetlands with rising sea levels).
- d. Provide economic benefit to the region.

Goal #6. Integrate experimental actions and research into the project, where appropriate, to inform restoration and management actions for this project.

Objectives:

- a. Include opportunities for potential experiments and pilot projects to address gaps in information (e.g., effect of warm river water on salt marsh ecosystem) that are protective of sensitive habitat and wildlife and that can be used to adaptively manage the restoration project.
- b. Include areas on the site, where appropriate, that prioritize research opportunities (such as those for adaptive management) over habitat sensitivities.

2.10 Project Description

The project would restore wetland, wetland-upland transition zone, and upland habitats throughout the project area. This would involve addressing any contaminated soil and groundwater, grading, revegetation, construction of new public access opportunities (including trails, a Stewardship Site, and viewpoints), construction of flood management facilities (including earthen berms), and modification of existing infrastructure and utilities (Figure 4).



Legend

Sumps and Former Landfill	Vegetation Alliances	<i>Bassia hyssopifolia</i> Semi-Natural Herbaceous Stand	<i>Bromus diandrus, rubens</i> Semi-Natural Herbaceous Stand	<i>Cressa truxillensis - Distichlis spicata</i> Herbaceous Alliance	<i>Frankenia salina</i> Herbaceous Alliance	<i>Mesembryanthemum</i> spp. - <i>Carpobrotus</i> spp. Herbaceous Semi-Natural Alliance	<i>Uva lactuca</i> algal mat
Other Delineated Contamination Areas	Name	<i>Brassica nigra</i> and other mustards Herbaceous Semi-Natural Alliance	<i>Conium maculatum - Foeniculum vulgare</i> Herbaceous Semi-Natural Alliance	Developed	<i>Heterotheca grandiflora</i> herbaceous stand	Ornamental	Unvegetated salt flat
Project Boundary	<i>Arthrocnemum subterminale</i> Herbaceous Alliance	<i>Baccharis salicifolia</i> Shrubland Alliance	<i>Distichlis spicata</i> Herbaceous Alliance	Disturbed - mowed/disked fire break	<i>Isocoma menziesii</i> Shrubland Alliance	Ornamental Tree	Unvegetated tidal flat
					<i>Isomeris arborea</i> shrub stand	<i>Sarcocornia pacifica</i> Herbaceous Alliance	

Figure 4: South Los Cerritos Wetlands Restoration Project Features

2.10.1 Phasing

Ecosystem restoration in the Project Area would occur in two phases based on access to the Haynes Cooling Channel as a source of tidal waters. The Phase 1 restoration activities would focus on enhancing existing habitat areas in closer proximity to the existing muted tidal channel connection via the culvert connected to the San Gabriel River. Phase 2 restoration activities would expand tidal wetlands throughout the Project Area by creating a full tidal connection with the Haynes Cooling Channel. Phase 1 will be designed to provide an initial functional lift to existing habitat areas that will be become further enhanced by the improved hydrological conditions provided by Phase 2.

Proposed activities could include the following (see Figure 5 and Figure 6, see Figure 7 legend):

Both Phases

- Grading the South LCWA site, including excavation to create channels and revegetation of native plants to support a diversity of marsh, transitional, and upland habitats;
- Managing and/or remediating soils (e.g., excavation and removal, or retain and do confirmatory sampling and testing, and/or cap in place) that have been impacted by oil operations;
- Creating improvements on the State Lands Parcel site that may include a connector trail, Stewardship Site, and interpretive opportunities;
- Maintaining the flap gate on the existing culvert connecting the South LCWA site to the San Gabriel River and possibly clean out the culvert for improved water flow; and
- Beneficially reusing fill material on site to support existing upland habitat areas in the northeast (known as Area 18) and southwest (known as the former landfill site) extents of the project area.

Table 1 summarizes the activities associated with Phase 1 and Phase 2 activities.

Table 1: Project Phasing

Location	Phase 1 (before 2030)	Phase 2 (after 2030)
South LCWA	<ul style="list-style-type: none"> • Excavating a channel up to the boundary of the Haynes Cooling Channel • Grading of site to support habitat restoration • Remediation of soils • Protecting existing mid-marsh in the northern portion of the site • Constructing an earthen berm to protect the sensitive habitat area of the project site from hydraulic connection to and influence from any site to the north • Raising 1st Street and reconfigure utilities • Retaining the gate on the Hellman Channel culvert to the San Gabriel River and cleaning the culvert • Replacing the existing culverts under 1st Street with a much larger culvert systems or potentially a short bridge • Filling Area 18 and the former landfill to uplands • Restoring bluff habitat • Adding Tribal Cultural resource and access features 	<ul style="list-style-type: none"> • Connecting Haynes Cooling Channel to the project site • Expanding salt marsh south and east • Remediation of soils • Filling Area 18 • Installing connector trails • Adding experimental plots for research • Restoring salt panne habitat • Culvert under dirt access road to be removed at the end of Phase 2
State Lands Parcel	<ul style="list-style-type: none"> • Possible Stewardship Site, interpretive opportunity, and connector trail 	<ul style="list-style-type: none"> • Continued Stewardship Site with connector trail
Haynes Cooling Channel	<ul style="list-style-type: none"> • N/a 	<ul style="list-style-type: none"> • Channel is decommissioned for use in once-through-cooling

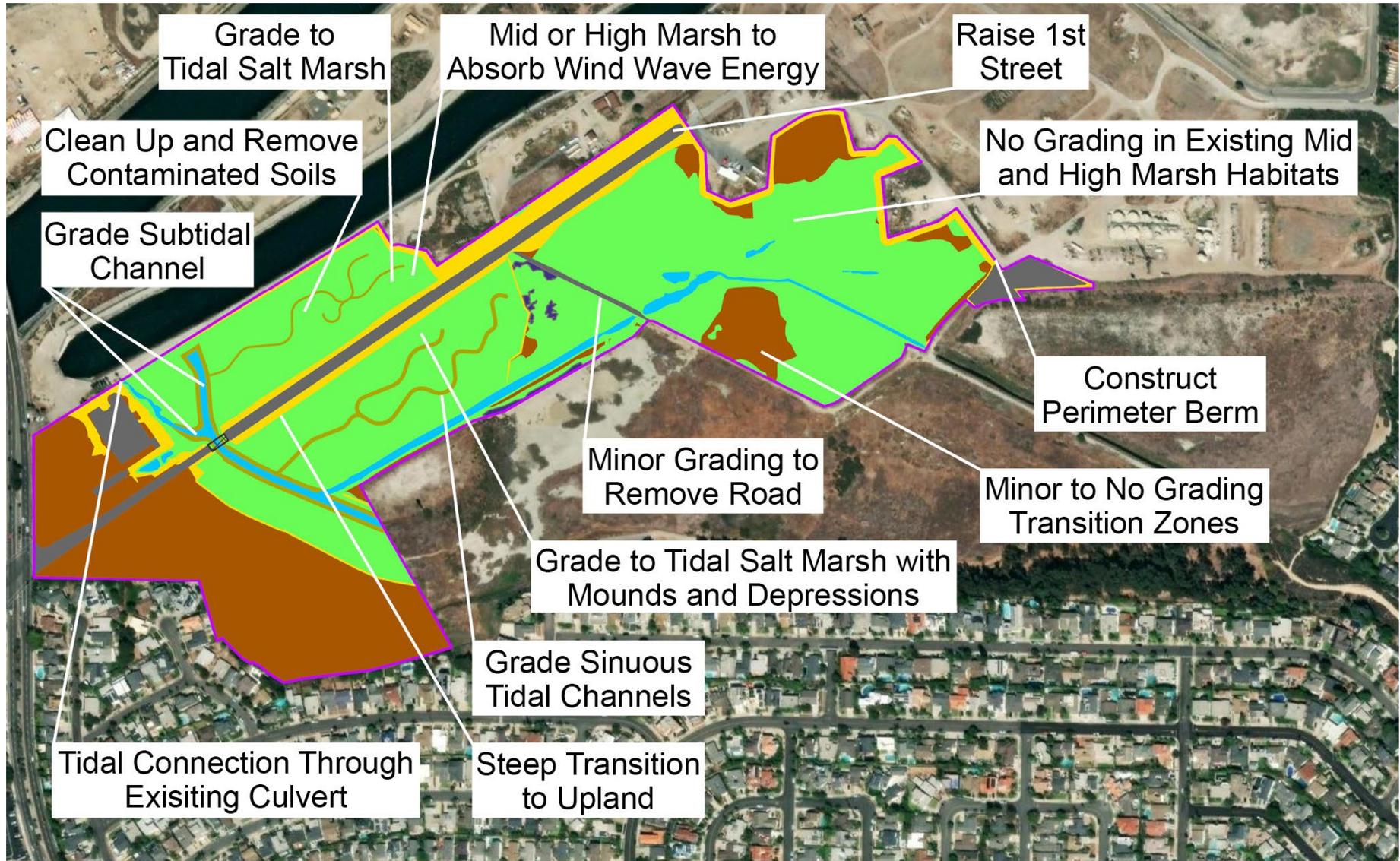


Figure 5: Phase 1 Restoration

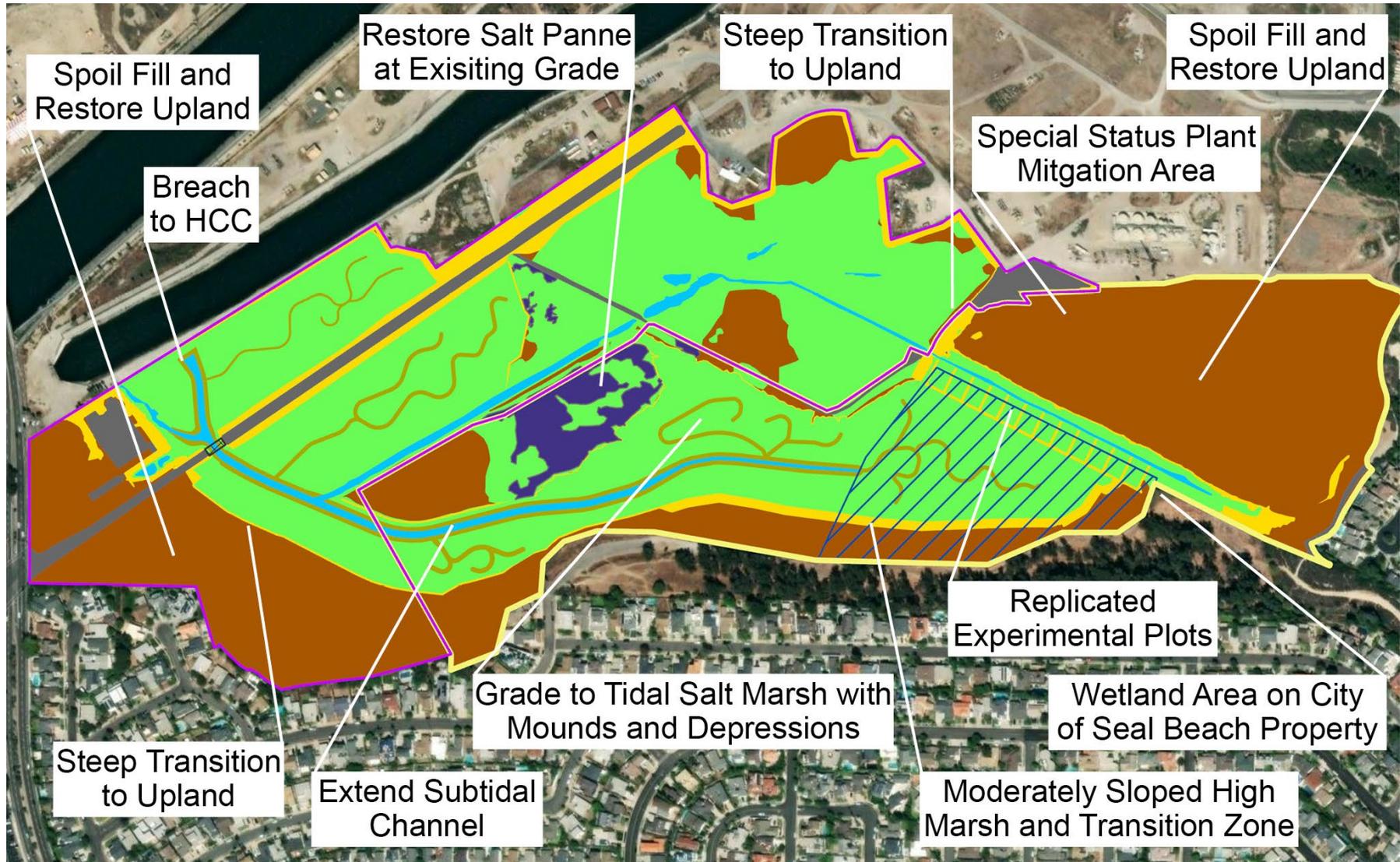


Figure 6: Proposed South Phase 2 Restoration

2.10.2 Ecosystem Restoration

Restored Habitats

The project proposes for approximately 27.71 acres of existing non-native upland and native shrubland to be graded down to intertidal salt marsh elevations with another 7.37 acres of transitional wetlands habitat sloping up to upland elevations along the southern and eastern borders of the project site. Consistent with the PEIR, grading of existing muted tidal salt marsh habitat would be avoided as much as possible and, instead, those areas will be enhanced by improvement to the site's tidal prism. Grading of existing salt marsh habitat would only be considered if it was required in order to remediate contaminated soils.

Figure 7 shows a map of existing habitat on-site and Figure 8 shows proposed habitats on-site.

Phase 1

Initially, tidal channels and creeks would be excavated in the Phase 1 area and the connection to the San Gabriel River would be improved through cleaning of the existing culvert. Based on hydraulic modeling, it is expected that the Phase 1 area will have a 2.8-foot tidal range, which is an 0.8-foot increase from existing conditions, and a 40% increase. A total of 45.91 acres of tidal salt marsh habitat will be enhanced, created and restored. Additionally, 1.66 acres of subtidal habitat will be created and restored. The new subtidal habitat will mostly be comprised of the initial portion of the new tidal channel that will connect to the Haynes Cooling Channel in Phase 2. Finally, Phase 1 will include the creation and restoration of approximately 4.86 acres of transitional habitat as well as 14.15 acres of restored upland habitat. Much of the existing upland habitat in the Phase 1 area is either bare ground or non-native vegetation that will be converted into tidal wetlands or enhanced so that native upland plant communities are established. The plant communities anticipated to be established within the Phase 1 area include southern coastal salt marsh, coastal sage scrub, southern coastal bluff scrub, and mulefat scrub.

Phase 2

When access to the Haynes Cooling Channel is available after LADWP ceases once-through-cooling activities, a connection will be breached between the portion of the subtidal channel created in Phase 1 and the Haynes Cooling Channel. The Phase 1 subtidal channel will be extended into the Phase 2 area and create and restore an additional 0.85 acre of subtidal habitat. The culvert connection with the San Gabriel River will be maintained.

A total of 17.07 acres of new full tidal salt marsh habitat will be excavated in the Phase 2 area. The salt marsh habitat will be connected to the new subtidal channel that is connected to the Haynes Cooling Channel. This new full tidal habitat includes 2.04 acres of restored salt panne habitat. Additionally, the tidal salt marsh in the Phase 1 area will become full tidal, resulting in a significant functional lift. Based on hydraulic modeling, it is expected that the Phase 2 area will have a 7.97-foot tidal range, which is a 5.17-foot increase from Phase 1 conditions. Finally, Phase 2 will include approximately 2.51 acres of transitional zone habitat as well 24.30 acres of restored upland habitat. These acreages will be added to habitat established in Phase 1. Much of the existing upland habitat in the Phase 2 area is either bare ground or non-native vegetation that will be converted into tidal wetlands or enhanced so that native upland plant communities are established.

The plant communities anticipated to be established within the Phase 2 area include southern coastal salt marsh, coastal sage scrub, mulefat scrub, and southern dune scrub. These plant communities have the potential to support a wide variety of special status wildlife including Belding's savannah sparrow, California least tern, light-footed Ridgway's Rail, least Bell's vireo, and burrowing owl.

Furthermore, a condition for the development of Heron Pointe (a previously approved residential development located outside the program boundaries south and east of the project area) involved restoration of raptor foraging habitat per Coastal Development Permit (CDP) 5-97-367-A1. The CDP Amendment Staff Report

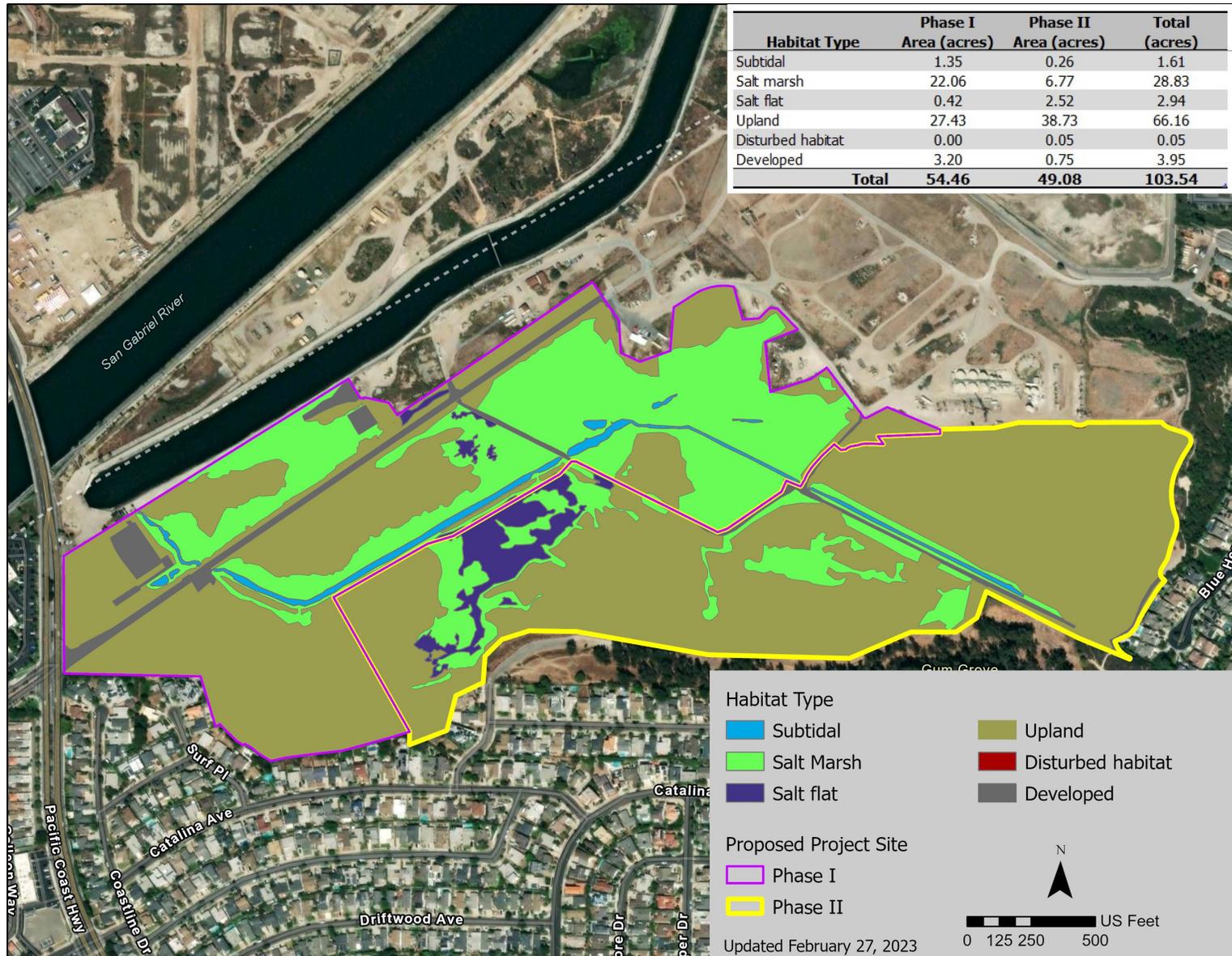


Figure 7: Existing Habitat Communities

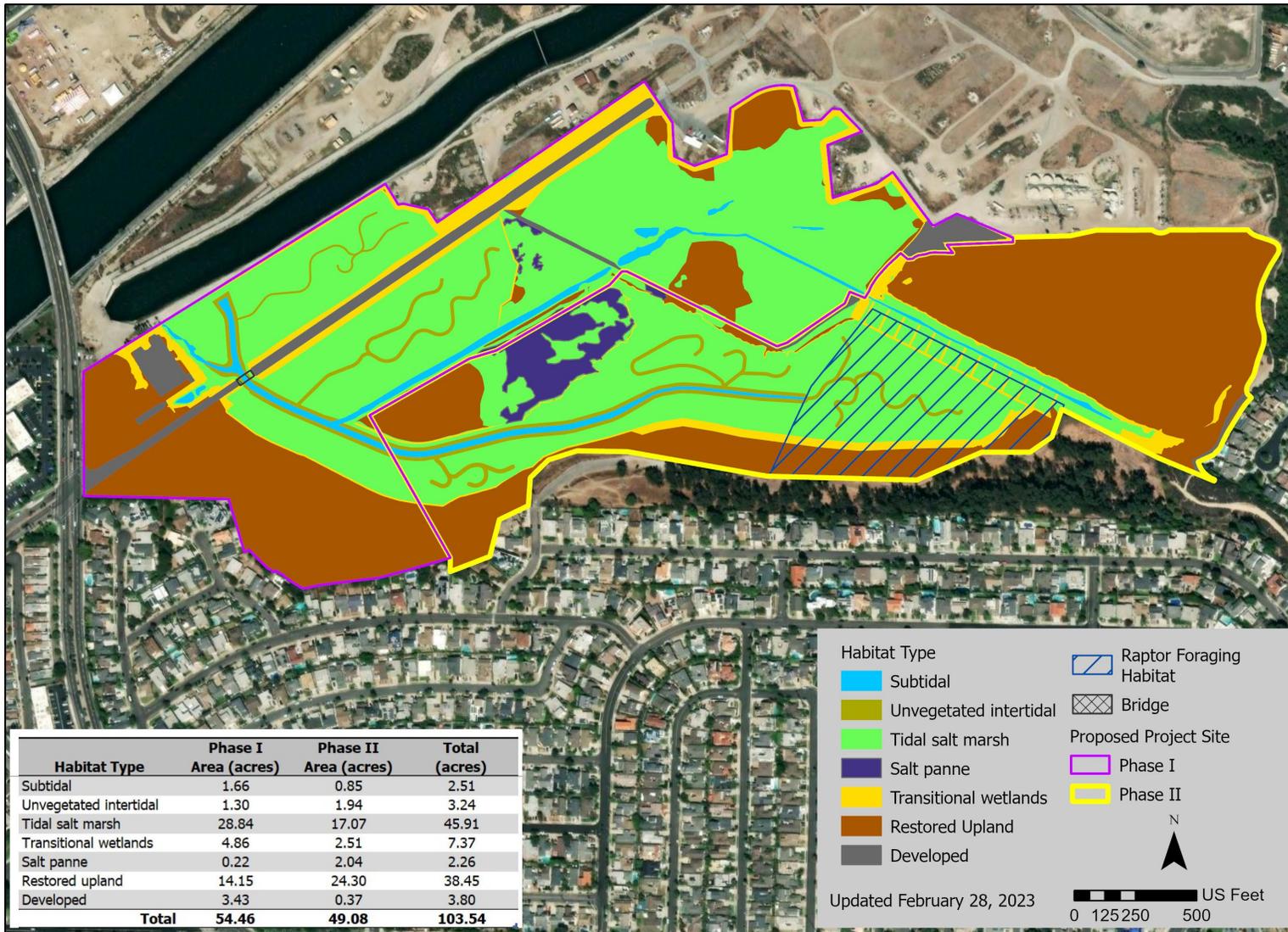


Figure 8: Proposed Habitat Communities

(filed on September 12, 2000) requires the creation of 9.2 acres of suitable raptor foraging habitat to support various bird species that nest and/or forage in the South Area and within Gum Grove Park. Figure 8 shows the approximate location of the raptor foraging area, which overlaps multiple habitat types known to support foraging activities for a variety of raptor species including, but not limited to, harrier hawk, American kestrel, red-tailed hawk, red-shouldered hawk, cooper’s hawk, and white-tailed kite.

A summary of the existing conditions, proposed restoration (both Phases I and II) and total proposed restoration is included in Table 2.

Table 2: Pre- and Post-Restoration Habitats and Acreages

Habitat Type	Existing Conditions	Phase 1 Proposed Restoration	Phase 2 Proposed Restoration	Total Proposed Restoration
Wetlands ^a	33.38	36.88	24.41	61.29
Subtidal	1.61	1.66	0.85	2.51
Unvegetated Intertidal	---	1.30	1.94	3.24
Transitional zone	---	4.86	2.51	7.37
Salt marsh	28.83	---	---	---
Tidal salt marsh	---	28.84	17.07	45.91
Salt flat/panne	2.94	0.22	2.04	2.26
Uplands	66.16	14.15	24.30	38.45
Non-native upland	66.16	---	---	---
Restored upland	---	14.15	24.30	38.45
Non-Natural	4.00	3.43	0.37	3.80
Disturbed habitat	0.05	---	---	---
Developed (e.g., berms, road, State Lands pads) impervious surfaces)	3.95	3.43	0.37	3.80
Total^b	103.54	54.46	49.08	103.54

^a These habitat acreages may or may not be jurisdictional wetlands, but they have plants and/or hydrology that is indicative of wetlands.

^b Acreages do not include the Los Alamitos Pump Station site or the Los Alamitos Retarding Basin site. Acreages presented here assume the construction of an earthen berm. (Source: Moffatt & Nichol internal work product).

Hydrology and Grading

Marsh Plain Grading

Soil would be removed in focused areas to restore tidal wetlands near the Hellman Channel with transitional habitats between the wetlands and the new berm to be constructed along the Hellman Retained site boundary and the surrounding uplands along the southern and western boundaries. Areas of existing high-functioning wetland and transition habitat will be avoided. The soil removed would be used to construct the new berm, raise 1st Street, and be used as fill in the designated upland fill/stockpile areas. Fill material placed in the stockpile areas could eventually be used as material for thin layer sediment augmentation or for use in future projects that tier from this program. Existing road and high elevations ranging from 5.5 to 11.5 NGVD (or 8 to 14 feet mean lower low water, or MLLW) on the South LCWA site would be graded down to marsh plain elevation. The marsh plain will not be graded with a gradual slope and will include uneven terrain with high and low spots to replicate a more natural surface condition, such as that which exists at Steamshovel Slough and the wetlands at the Seal Beach Naval Weapons station.

In Phase 2, the existing high elevations along the south edge of the Haynes Cooling Channel on the South LCWA site would be lowered to allow sheet flow over the marsh plain and into the Project Area. This same approach was taken at Brookhurst Marsh in Huntington Beach Wetlands and it has functioned successfully.

Perimeter Berm

A perimeter earthen berm will be constructed in Phase 1 to maintain protection of the Hellman Retained site (Hellman site) from seasonally high tide levels and storm events (Figure 9). Soil excavated from the tidal channels or marsh plain grading would be used to construct the berm (approximately 6,100 cy would be required).

The berm elevation would be set to +7.5 feet NGVD (+10 feet NAVD), or roughly 4 feet above the marsh plain, to allow for higher water levels while maintaining the existing level of inundation protection for the Hellman Retained site. The earthen berm will be constructed with a top width of 6 feet to accommodate an informal and narrow access path for maintenance and a public access trail, and side slopes of 3:1 horizontal to vertical (H:V) down to the marsh and Hellman Retained site.

It will also be constructed to be resilient to damage during an earthquake. The berm will be constructed by over-excavating the soils under the berm footprint and backfilling the excavated area with finer-grained soils such as surplus marsh soils containing silts and clays, and then compacting the new fill in lifts as a foundation with more stability than the underlying soils. New lifts can be added over the foundation and be built upward to increase the elevation of the berm to the desired final target, with each lift being compacted to a high-density condition such as 95%. The final berm is a compacted and stable earthen feature that can withstand earthshaking, fault rupture, differential hydraulic head during high water, loads on the crest from small vehicles, and potentially other forces that may impinge upon it over time.

Raised Road

An additional berm would be constructed to raise the existing 1st Street. Raising 1st Street will keep flood waters contained within the marsh plain and adjacent habitat areas and will maintain the existing access easement for the Hellman Retained site. The road berm would be constructed with a top width of 30 feet and side slopes of 3:1 H:V down to the marsh on either side. Road construction will follow all engineering conventions required to prevent or minimize damage that could be incurred during an earthquake such as an improved foundation from the existing condition and compaction of fill to remain structurally stable during a seismic event.

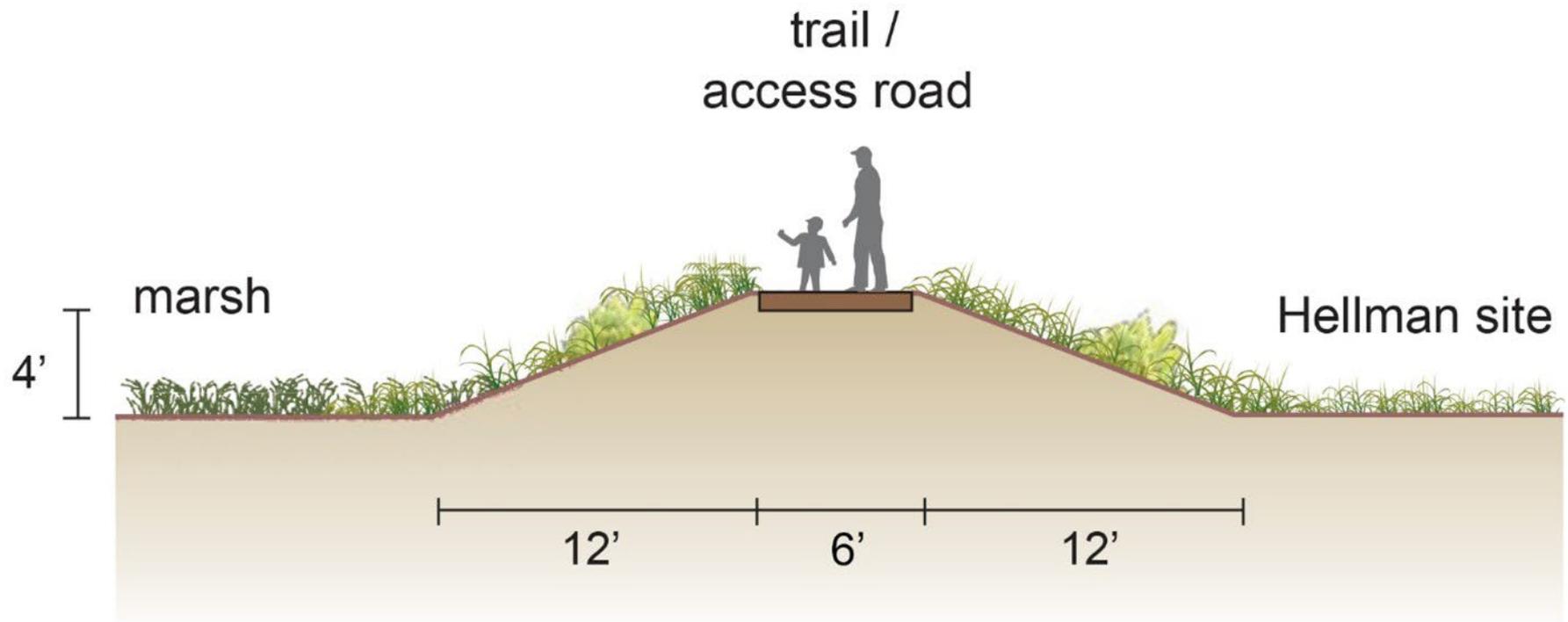
Tidal Channels

In Phase 1, new tidal channels would be excavated off the Hellman Channel on the South LCWA site to create a sinuous and branching network of tidal channels through the wetlands. The existing channel would connect to the existing San Gabriel River culvert and would continue to be subtidal. The smaller channels throughout the rest of the marsh would be intertidal and would drain at low tide. The larger channels would branch into smaller distributary channels.

In Phase 2, a big channel with shorter, narrower feeder channels would be excavated to connect the existing main channel to the Haynes Cooling Channel. The existing culvert and channel connection would remain.

Water-Control Structures

In Phase 1, two of the existing culverts along the Hellman Channel would be improved to enhance tidal connection to the southern and eastern portions of the South LCWA site. The existing culvert under 1st Street would be improved or replaced with a much larger culvert or a short bridge once the road is raised. The existing culvert connecting the main channel to the San Gabriel River would be cleaned out and the flap gate on the culvert retained in its existing condition. The foundations of the bridge-type structure will be constructed to seismic engineering standards (extended to a sufficient depth to be embedded within competent material or other approaches such as spread footings on pre-compacted foundation soils) to prevent damage or instability during a seismic event.



SOURCE: LCWA 2020

Figure 9: Artistic Rendering Berm

Additionally, two culverts currently running under the existing dirt access road will be removed and the connections will be completely cleared and converted to open channels during Phases 1 and 2. The culvert near 1st Street is removed in Phase 1, and the culvert farthest east is removed in Phase 2 because it is needed for construction access purposes.

Flood Risk and Stormwater Management

Perimeter Berm

To increase tidal flows to the site, the existing culvert connecting the South LCWA site to the San Gabriel River would be cleaned. The existing flap gate on the culvert will remain as it does not retard flows due to its high porosity from corrosion. To prevent flooding of the Hellman Retained site, a perimeter berm would be constructed along the Hellman Retained site and South LCWA site boundary and tied into areas of high ground to maintain the existing level of flood risk protection. Once the berm is established during Phase 1, flooding will not be anticipated (and no improvements during Phase 2 will be needed).

Stormwater Management

In Phase 2 a new stormwater basin or bioswale would be constructed to function as a water quality treatment measure for the stormwater runoff from the high ground east of the site.

Public Access and Visitor Facilities

Phases 1 and 2 both will develop and improve public access, recreation, and interpretative opportunities within the Project site.

Stewardship Site and Parking

A Stewardship Site (not a physical structure, rather a site that offers stewardship opportunities, including interpretive signage, shade, equipment storage, and seating where volunteers can gather before and after stewardship program events) may be placed on the existing raised building pad on the State Lands Commission Parcel. Parking would be provided along 1st Street adjacent to the Stewardship Site. Phase 1 will create a trail connection from the San Gabriel River in the west through the State Lands Parcel and South LCWA site ending just short of Avalon Drive near Gum Grove Park, and Phase 2 will extend and finalize the trail connection to Gum Grove Park, through Gum Grove Park and connect with the Hellman Ranch Trailhead on the east.

Trails and Overlooks

The southern portion of the site will preserve an existing trail during Phase 1. A new trail will be constructed through the restored upland habitat on the former landfill site on the South LCWA site in Phase 2. The trail would connect Gum Grove Park to the existing San Gabriel River Trail, fishing area, and trails on the Isthmus area. Initially, this trail would be restricted to docent-led tours until habitat areas are established and a management plan is approved. A viewpoint would be constructed overlooking the marsh.

A new restricted trail will be constructed along the top of the new perimeter berm, connecting 1st Street in the west and Heron Point Cultural Trail in the east. A viewpoint would be constructed along the new berm. This trail will be restricted to docent-led tours and maintenance access.

The existing fishing area at the Haynes Cooling Channel will be unaffected by this project.

Infrastructure and Utility Modification

In Phase 1, the existing road (1st Street) through the marsh will be raised on a berm to move it out of the restored marsh floodplain. The City of Seal Beach is planning to sleeve the water line within the road, which could be done at the same time as the road upgrade but may proceed in advance of that. If the water line project

moves forward before road improvement, the waterline will be protected in place and the roadway work done alongside and away from the water line. The utility poles supporting the power lines along the road may need to be improved (e.g., relocated, heightened) as part of the raising of the road. Preferably, the power lines could be replaced underground pending agreement with Southern California Edison.

2.10.3 Implementation and Restoration Process

Implementation would include clearing and grubbing, grading and soil transport across and off-site, soil remediation, berm and breaching, revegetation, irrigation, construction of flood risk and stormwater management facilities, access roads/trails, the Stewardship Site, and utility modifications.

Schedule

Phase 1 will require approximately 18 months to construct, and Phase 2 may take approximately 9 to 12 months. Phases 1 and 2 construction will both require work to be performed during a portion of a Belding’s savannah sparrow breeding season. Multiple years are anticipated between each phase. Phase 1 could start as early as 2024 pending permitting and secured funding, while Phase 2 would not start until after 2029 when the Haynes Cooling Channel is no longer needed.

Earthwork Quantity Estimates

Table 3 summarizes the earthwork quantity estimates for the Project in the near term and for the entire project (including Phases 1 and 2). The total cut and fill is estimated to be 82,000 cy for Phase 1; the total cut and fill is estimated to be 400 cy fill and 176,000 cy of excess material for Phase 2. Berm dimensions may be refined during final design as needed. The final volume of fill placement for berm construction would depend on the final design and the actual conditions during restoration (e.g., the compatibility of excavated soils), and will be reflected in the regulatory permits.

Table 3: Approximate Earthwork Soil Volume for Phases 1 and 2

Feature/Action	Cut Quantity (cy)	Fill Quantity (cy)	Fill at Upland Areas (cy)
Perimeter Berm	0	6,100	0
Marsh Grading (avoiding high-functioning marsh habitat)	Ph 1 = 97,000 Ph 2 = 177,000	Ph 1 = 15,000 Ph 2 = 400	Ph1 = 82,000 to Area 18 Ph 2 = 118,000 to Area 18 And 58,600 to Former City Landfill Area

Excavation in the South LCWA site to lower the area to marsh plain is expected to generate approximately 258,600 cy of surplus soil, depending on final marsh plain grading. The extra material generated from the South LCWA site could be stockpiled for the long term when the site may need material to elevate habitat for sea level rise or for use in other future projects that tier from the PEIR. The existing assumptions limit the fill quantity that can be placed on the site to be 283,000 cy, so is sufficient capacity to keep surplus material on-site. The design will seek to balance cut and fill as much as possible on-site.

Stockpiling and Excess Fill Placement

Soil excavated from the South LCWA site will be stockpiled on the eastern portion of that site, with some additional material being placed on the southern portion of the site (landfill site). The PEIR identified that other portions of the Los Cerritos Wetlands Complex may be short on fill material and emphasized the benefits of stockpiling material for future use.

Implementation Methods

Earthwork and Soil Transport

Much of the proposed Project’s earthwork would be accomplished by traditional land-based equipment (e.g., scrapers and excavators); however, marine construction equipment may also be used. Wetland restoration earthwork would also require some special equipment and implementation methods, as high groundwater and weak soils can preclude use of traditional land equipment. Specialized equipment and construction methods that may be needed, along with more typical techniques, are described in Table 4.

Soil transport would be accomplished using scrapers and loaders, haul and dump trucks, track excavators and dozers, trucks, or other low ground pressure equipment, or by hydraulic dredge (much less likely for this project).

Berm, Berm Lowering and Breaching

No levees will be altered as part of this project. Berm lowering would only take place along the Haynes Cooling Channel where the project site borders the Haynes Cooling Channel’s southern maintenance road. This work will involve a phased removal of earth to maximize the quantity that is moved prior to breaching and to limit the risk of uncontrolled breaching. The restoration contractor would be required to sequence work to prevent site inundation and, typically, would do this by leaving a small, raised area (e.g., a “check berm”) until final earthwork. Final earthwork often consists of dozer or excavator operation to quickly remove the check berm and side cast earth into the site. This last work may be timed for a neap tide (i.e., least difference between low and high tides) and staged to maintain access and egress along portions of the berm. Alternatively, the contractor could use steel sheet pile coffer dams along the channel to allow for berm lowering during all tide levels.

Table 4: Equipment and Earthwork Methods for Wetland Restoration

Equipment	Earthwork Methods
Special Equipment and Methods for Wetland Restoration	
Low ground pressure equipment	Smaller, lighter equipment with large surface area tires, treads, or tracks that reduce bearing pressure.
Mats	Timber planks (thick) lashed together or rubber mats and moved by bucket-type equipment.
Long-reach excavator	Track or wheel mounted excavator with a long arm and small bucket to allow extended reach to over 40 feet.
Clamshell and dragline crane	Usually track mounted, can reach 60 feet or more. Not likely needed.
Amphibious excavator	Can float and can excavate in shallow standing water. Scarce availability.
Rotary ditcher	Excavates with rotating wheels that spray sediment across adjacent areas, resulting in narrow ditch. Typically pulled behind other equipment but can be self-propelled. Not likely needed.
Floating equipment	Cranes and excavators can be floated on barges for both transport and operation. Equipment can be trucked in and assembled to work in land-locked water bodies. Not likely needed.
Hydraulic dredge	A water and sediment mixture can be excavated and pumped. Not likely needed.
More Common Construction Equipment	
Grader	Sets elevations of topography
Truck	Transports material over the site and on or off site as needed
Loader	Carries material from one portion of the site to another within earthwork areas
Backhoe	Excavates material and can also carry it over the site within earthwork areas
Excavator	Excavates material and places into a stockpile for dozers and loaders to process.
Bulldozer	Scrapes the surface and pushes material to form a desired configuration.
Generator Set	Powers stationary objects such as lights, etc.
Drill Rig	Drills into the site to either create holes or retrieve sediment samples
Forklift	Carries materials over the site typically out of earthwork areas
Pile Driver	Drives piles into the ground for foundations of bridges, etc.
Delivery Trucks	Deliver materials to the site and potentially haul materials off-site

Breaching would also be phased, similar to berm lowering. Breaching usually is accomplished by two long-reach excavators working on the lowered berm on either side of the breach to be excavated. At first, earth would be loaded onto trucks and taken elsewhere. Once the berm section is reduced to the point of incipient breaching at the next high tide, the operation usually shifts into a high production rate mode with excavated material sidecast. Often, other excavators and low-ground pressure dozers rehandle the sidecast earth and displace it farther away from the breach, thereby limiting the height of the sidecast and maximizing the excavation rate. The work continues until the breach is excavated or the tides approach the berm surface.

Construction Period Berm Stability

Berm stability would be addressed by staged construction with geotechnical recommendations. Berm construction often requires a phased construction to compensate for settlement and to avoid overloading the subgrade and causing shear failure (e.g., sliding failure) and mass movements. The increased weight of an earthen berm typically would result in consolidation of underlying soils and settlement. The increased weight also would increase the shear stresses in the foundation soils and can cause shear failure and deformation and compromise the berm construction. This can be solved by over-excavating the soils under the berm footprint and backfilling the excavated area with finer-grained soils such as surplus marsh soils, and then compacting the new fill in lifts as a foundation with more stability than the underlying soils. New lifts are added, compacted, and built upward to the target elevation.

Off-Site Soil Export

In the proposed project, some excavated soil could be exported from the site. There are four options for off-site soil export and disposal:

1. Export via trucks with disposal at local landfills, the most likely of which could include Scholl Canyon Landfill in the City of Glendale, Frank R Bowerman Landfill in Irvine, and/or Olinda Alpha Landfill in Brea. This is the primary offsite material disposal option for this project.
2. Export via trucks with disposal at a more distant landfill for material that is considered contaminated and therefore needs to be disposed at a Class I landfill, such as Kettleman Landfill in Kettleman City within the Central Valley. This approach is not anticipated to be necessary per the geotechnical engineer for the project (Anchor QEA, personal communication with Chris Webb on March 3, 2023).
3. Export via barge to the Port of Long Beach or Port of Los Angeles, transfer to trucks for upland disposal at local landfills (this is not proposed as part of this project); and/or
4. Export via barge to an off-shore disposal location, potentially including the Los Angeles ocean disposal site off the coast from San Pedro (LA-2) or the Newport Bay ocean disposal site off the coast from Newport Beach (LA-3), each of which is managed by the United States Environmental Protection Agency (USEPA). This is also not proposed as part of this project.

Clearing and Grubbing

Vegetation would be biologically monitored, cleared, and grubbed prior to grading. Native plants and seeds/cuttings may be salvaged and reused for revegetation of restored areas. Invasive non-native plants would be stockpiled on site and treated (e.g., composted). If possible, the preferred approach would be to bury non-native plant material in upland fill areas at a depth below which the non-native vegetation or seedbank could reestablish. Non-native plant material may also be exported and disposed of off-site as described above (e.g., Option 1).

Non-native Plant Material Treatment

After grading, non-native plants would be removed prior to and concurrent with revegetation to ensure native habitat enhancement. The goal is to remove all invasive non-native plant species. Specifically, invasive non-native species populations designated as “High” by California Invasive Plant Council would be initially

targeted for removal. If other invasive non-native plant species listed as having a “Moderate” or “Limited” impact by the California Invasive Plant Council are present, they would be removed if, based on the California Department of Fish and Wildlife (CDFW) review, they are negatively affecting habitat and/or restoration efforts at the site.

Recommendations contained in the California Invasive Plant Council Weed Workers Handbook and website (2014) and at the U.S. Department of Agriculture (<http://plants.usda.gov/java/noxiousDriver>) would be followed. Mechanical removal is the preferred method of removing invasive species; accordingly, invasive plant species removal would occur using mechanical methods to the maximum extent possible. This method of removal would be used in areas where the associated ground disturbance would not adversely affect sensitive wildlife species. Plant materials that are removed would be removed entirely and disposed of carefully, including stems and all root fragments, to prevent regeneration or spread. In general, removal would be performed during the late winter or early spring when soils are moist enough to remove entire plants without breaking the roots. Invasive species would be removed before the species set seed. When this is not feasible, seed heads would be removed from plants prior to removing the stems and roots. Seed heads of invasive species would be placed in plastic trash bags and removed from the site for proper disposal.

If mechanical or hand removal methods are tried and found to be ineffective after two years of repeated treatment, or the problem is too widespread for hand removal to be practical, then chemical controls would be implemented as described below. For some species, particularly woody species, or large-biomass species (e.g., pampas grass), mowers, chainsaws, or other handheld equipment may be used if the eradication method would not adversely affect sensitive wildlife species.

Invasive plant materials that are removed would be disposed of carefully to prevent regeneration or spread. For plants that are not in seed, the material could be left on site to decompose. For any plants with seed, they would be removed from the site in a manner that does not disperse seed (in plastic bags for example) and disposed of at an off-site disposal area.

Herbicides would be used in accordance with manufacturers’ application guidelines by a licensed applicator for specific species when manual and mechanical removal methods are not effective and may be used in conjunction with physical removal methods for species that are known to be difficult to control. The program’s restoration contractor would prepare an herbicide treatment plan for each treated invasive species, including such information as the type of herbicide to be used, application rates, and timing of treatment. Herbicides would be applied using a localized spot-treatment method and applied in a manner that would eliminate or reduce drift onto native plants. Herbicides would be applied to cut stumps for larger plants or large clumps of herbaceous non-native species that cannot effectively be removed. In all such cases, they would be used only to the extent necessary to support native plant establishment and limit adverse impacts to sensitive species and habitats. For sites within 100 feet of a wetland or stream, herbicides approved by USEPA for use near wetlands and streams, such as the glyphosate-based Rodeo® or the imazapyr-based Habitat® would be used. Herbicides would not be used when rain is predicted within 24 hours after application or if wind conditions are not appropriate for application, and herbicide application would not resume until 72 hours after rain. Herbicide rates would vary depending on the size of the plants treated. Any use of herbicides would also be in full accordance with any applicable rules and restrictions.

Revegetation of Graded and Disturbed Areas

Restoration of target habitats will require active revegetation, including irrigation, soil conditioning and amendments, and weed control. Topsoil management during grading will be important to monitor for the suitability of target vegetation. For instance, upland habitats (e.g., coastal sage scrub, berm plantings) will require well-draining soils with a low salt content. Soils could be amended by adding gypsum or leached of salts through irrigation. High-clay soils that are not compacted will be used for salt marsh and other wetland habitats.

Soils would be prepared before plant establishment. Soil preparation would include proper drainage, nutrient and mycorrhizae content, and erosion control. Topsoils in all areas to be planted will be tested prior to being placed to assess whether they would support the target plant community. Soils that are not appropriate for vegetation establishment could then be placed elsewhere, buried, or amended as feasible. Typical soil amendments may include compost, mycorrhizae, and fertilizer. Excess fertilizer application can favor the establishment of generalist non-native plant species over locally adapted native plant species; however, a minimal amount of fertilizer may be necessary to establish native plants if soil quality is found to be particularly poor and low in nutrients. If found to be necessary, amendments would be tilled into the upper 8 to 12 inches of soil.

All seed and plant material will be collected from local sources, preferably from Los Cerritos Wetlands when possible. Seeds will not be collected from other restoration sites, only natural populations. Potential sites for seed collection could include, but are not limited to: Palos Verdes Peninsula, Bolsa Chica Ecological Reserve, Upper Newport Bay Ecological Reserve, Huntington Beach Wetlands, and Seal Beach National Wildlife Refuge. Seeds would be collected by hand during the appropriate season for each species and would be propagated at a local native plant nursery and/or the on-site nursery adjacent to Zedler Marsh.

A temporary drip or spray irrigation system would be installed to provide water to the plantings during the establishment period following plant or seed installation.

Revegetation of Wetland and Transitional Areas

The restored salt marsh would be re-vegetated through a combination of seeding and installation of nursery stock. Restoration would include soil amendments (to alter soil texture and nutrients), irrigation, and weed control under an adaptive management approach.

Revegetation activities in non-tidal wetlands and transitional areas would include removing or controlling invasive plant species and seeding/planting native plant species. Invasive non-native plant species would be removed or treated according to the protocols described in *Non-native Plant Material Treatment*.

In tidal wetlands, irrigation would be used to lower soil salinity and aid establishment. Regular irrigation would be required during the first spring and first summer after planting. After the plants are established, irrigation would no longer be required. Irrigation water sources are described below.

Upland Areas

Upland and transition zone plants would be irrigated in the wet season as needed to supplement natural rainfall. Irrigation in uplands is anticipated to be needed for the first one or two years with the precise duration, frequency, and amount of water used dependent upon annual precipitation, temperatures, and vegetation type.

Water Sources for Restoration and Irrigation

A water connection and meter will be installed along the City of Seal Beach's main waterline that traverses the project area.

Investigate and Remediate Contamination Associated with Oil Sumps

Contaminated soils generated by drilling were historically left on-site in pits, or sumps, next to oil wells to collect and circulate drilling muds. There are a total of twelve sumps currently on-site. The project investigated potential oil contamination in near-surface soils (down to 6 feet below ground surface) at each sump site and made determinations about their handling. Figure 10 shows the sumps on-site and indicates which are to be removed and those to remain. Five sumps that exist on-site will require removal. They are numbers 1, 2, 3, 7 and 11. It is assumed they are entirely removed to 6 feet below grade with 2:1 side slopes within their entire outlines. The contractor will stockpile the material on-site, test it for contamination levels, and then haul it off



Figure 10: Sump Locations

to an appropriate landfill (anticipated municipal landfill) that will accept the soils with relatively low levels of contamination. The existing constituents and their respective concentrations indicate the material can be placed within a standard municipal landfill as determined by the soils engineer (Anchor QEA, Personal Communication, 2023). The final surface will also be sampled and tested to confirm no remaining contamination after sump removal. Surplus sediment from grading will be used to backfill the excavation footprints of these sumps.

Seven other sumps on-site do not require removal due to the relatively low level of contamination in each (as compared to federal government standards as defined below). The sumps to remain are numbers 4, 5, 6, 8, 9, 10 and 12. These sumps were assumed acceptable to remain on-site because any constituents were either below the Effects Range Medium (ERM) and Effects Range Low (ERL) criterion established by the Federal Government (Long, et.al. 1995), or were similar to levels as natural background concentrations and could be buried by one foot of clean soils as determined by the team’s contamination expert Anchor QEA (Personal Communication 2023). Table 5 shows the sumps, their constituents, and their fate.

Table 5: Proposed Sediment Management Actions

Sump	Proposed Sediment Management Action	Summary of Results	Rationale for Fate Decision
1	Remove for landfill disposal (at least top 6” and confirmatory testing)	4,4’-DDT, chlordane, and dieldrin exceeds the ERM at the surface	Contaminated and surface is proposed to be lowered
2	Remove for landfill disposal (at least top 6” and confirmatory testing)	As, Cu, Pb, and Ni exceed the ERL at the surface and at depth	Contaminated and surface is proposed to be lowered
3	Remove for landfill disposal (at least top 6” and confirmatory testing)	As, Cu, Ni, PAHs exceed the ERL at the surface	Contaminated and surface is proposed to be lowered
4	Remains on Site	All levels are below the ERL	Site is to be buried by proposed slopes and berms
5	Remains on Site	Cu, Ni, PAHs exceed the ERL but are consistent with natural background levels; Pb exceeds the ERM below any surface proposed modification	Site is within a sensitive habitat area to be retained
6	Remains on Site	Ni exceeds the ERL but the not the ERM	Clean material at the surface
7	Remove for landfill disposal (at least top 6” and confirmatory testing)	As, Cu, Ni exceeds the ERL	Contaminated and surface is proposed to be lowered
8	Remains on Site with 12” cover of clean soil placed over it	As, Cu, Pb, Ni, 4,4’-DDE exceeds the ERL but not the ERM; 4,4’-DDT exceeds the ERM at the surface and should be covered	Site is within a sensitive habitat area to be retained
9	Remains on Site with 12” cover of clean soil placed over it	As, Pb, Ni, 4,4’-DDT exceeds the ERL at the surface and should be covered	Site is within a sensitive habitat area to be retained
10	Remains on Site	As, Cu, Pb, Ni, PAHs exceed the ERL but not the ERM	Site is within a sensitive habitat area to be retained
11	Remove for landfill disposal (at least top 6” and confirmatory testing)	As, Cu, Pb, Hg, Ni, Zn exceeds the ERL (both, except Cu only at the surface); Hg exceeds the ERM at the surface	Contaminated sufficiently to cause a concern
12	Remains on Site	Cu and Ni exceeds the ERL at the subsurface well below any proposed modifications	Site is to be buried by a berm

2.10.4 Monitoring and Adaptive Management

Adaptive management is an iterative process of decision making in the face of uncertainty, with the aim of reducing uncertainty over time through monitoring. Since ecological restoration involves many variables, especially in systems as large and complex as the Los Cerritos Wetlands, there is uncertainty in how the project would perform. Designing and implementing this project using an adaptive management approach will lead to better outcomes and help the project meet its goals.

The adaptive management approach relies on monitoring data to regularly assess progress of the site towards achieving the project goals. If the data shows the project is off-track, certain actions are taken (e.g., tweaking, adjusting techniques and/or later designs) to achieve the project goals.

Small-scale experiments and pilot projects will be implemented that seek to address gaps in scientific knowledge regarding habitat, wildlife, and restoration and enhancement activities. Experimental test plots are incorporated into Phase 2 of this project for this purpose. Results of these experiments will be used to inform adaptive management for the proposed program and potentially for other restoration sites in the region and beyond.

Monitoring Program

The goal of monitoring is to inform the adaptive management process and assess progress toward meeting performance criteria. Careful restoration planning, including identification of important data gaps and collection of pre-project data, would help in setting appropriate performance criteria. Performance criteria for the project may be set in a variety of ways, but typically include input from regulatory and permitting agencies. Suitable reference sites, such as Steamshovel Slough or the Seal Beach National Wildlife Refuge, may also be appropriate for informing performance criteria.

Restoration sites evolve and mature over timelines that are longer than typical monitoring periods. Monitoring of the site into the future would inform adaptive management, provide important data for informing future phases of restoration at the site, and contribute to a better understanding of restoration trajectories for practitioners throughout Southern California.

Furthermore, opportunities to partner with local universities and other research institutions will be identified to implement research activities in suitable areas of the program. California State University Long Beach (CSULB) is located within 5 miles of the project site. CSULB conducts monitoring at local wetlands and may be a viable partner for this project.

Monitoring would focus on the major biotic and abiotic factors that drive habitat development and ecosystem function—in particular, those factors that can be manipulated and managed or those parameters that can be used to gauge habitat development and ecosystem function. Furthermore, the monitoring program would include the requirements presented in the PEIR Mitigation Monitoring and Reporting Program (MMRP) and any potential permit conditions. Protocols for collection and analyses of monitoring data would be developed for the level of accuracy necessary to assess achievement of performance criteria and inform adaptive management.

Adaptive Management

Successful adaptive management would first require baseline monitoring in order to fill data gaps and refine the restoration design. Consistent with the U.S. Department of Interior Technical Guide for Adaptive Management (2009), an adaptive management plan would be prepared prior to project implementation to track restoration success relative to performance criteria and determine when criteria have been met, and then restoration would proceed to its next phase.

Performance criteria would be set for both biotic (e.g., native and non-native plant cover, wildlife use, etc.) and abiotic (e.g., hydrology, soil conditions, water quality, etc.) factors, and monitoring data related to these factors would inform adaptive management.

Triggers for any remedial adaptive management actions would be based on significant deviation from, or a lack of progress toward, achieving the performance criteria outlined for each monitoring parameter, coupled with an evaluation of the trajectories of habitat development or directions of change. For many aspects of biotic community development, it may take several years for trends to become apparent, and changes in management actions should allow for sufficient time for trends to become apparent. If it is determined that progress toward performance criteria is not measurable, or that the habitat appears to be progressing toward an alternative state, the project team would evaluate the cause of the problem and the trajectory of habitat development and determine whether intervention would be desirable.

In some cases, habitat development would be on track to meet long-term performance criteria and no remedial actions would be warranted. In other cases, it may be determined that additional monitoring parameters are necessary to determine the cause of poor performance. Once the causes of poor performance are identified, appropriate changes in management would be investigated and implemented. Any modifications implemented as a result of this process would be subject to quantitative monitoring and analysis specifically designed to evaluate the effectiveness of such modifications or changes in management.

2.10.5 Operation and Maintenance Activities

Habitats and Vegetation

The restored areas would be planted or seeded after earthmoving finishes. Vegetation maintenance, irrigation, and weeding would be required for all habitats after restoration. Removal of invasive species would occur on site in perpetuity through the combination of a volunteer program and long-term management of the site using methods similar to those used during implementation.

Trash Removal Efforts

Trash removal would occur as needed within the restored wetlands and uplands by hand. Trash removal would be attempted on a regular quarterly basis, and episodically after storms or high wind events that can deliver trash to the site.

Berm Maintenance

The two perimeter berms would require limited maintenance, such as inspections annually and after significant storm events (i.e., 10-year event or greater) and earthquakes. The berms would also require periodic re-surfacing of the access road and trail with decomposed granite, replacement or repair of installed fencing, replacement or repair of any overlook or educational equipment placed along the walking trail, trash collection and graffiti removal, and any other vandalism repair. Minor erosion prevention measures may be needed for the berms periodically.

Water-Control Structures

The existing siphon from Alamitos Bay to the Haynes Cooling Channel is owned and operated by LADWP. Once the Haynes Cooling Channel is decommissioned, it could be transferred to the LCWA, in which case, the LCWA would be responsible for operation and maintenance. This would likely include regular inspections and general maintenance. Long-term management of sediment and fouling organisms may also be required to maintain tidal flow.

For any new water-control structures, annual inspection and potential maintenance may be needed to ensure proper operation, similar to current operation and maintenance of the existing structures. Obstructions would be removed when necessary. If sedimentation in the channel limits water conveyance, a low ground pressure excavator would be used to remove the sediment. A temporary access route, 35-foot-wide, would be created to access any areas of sediment build up within the channels using mats to provide equipment access. Since the channels will be sized based on their proposed tidal conveyance, sediment build up in the channels is not expected.

Stormwater Management Features

Maintenance of bioswales is expected to be limited to non-native vegetation removal and pruning as needed. Non-native plant removal would include work with hand tools such as shovels, rakes, hatchets, wheelbarrows, and small trucks for hauling of equipment and spoils. It is expected that these efforts would occur at least once a year for the lifespan of the project.

Hours of Operation

Hours of operation for public use of the new parking, trails, and the Stewardship Site would be from sunrise to sunset and may be limited in duration. Parking areas would be closed after hours.

2.11 Other Permits and Approvals

This IS/MND is intended to be an informational document for the Los Cerritos Wetlands Authority, to review and use when approving subsequent discretionary actions for this Project. LCWA intends to use this document to consider implementation of the proposed Southern Los Cerritos Wetlands Restoration Project. As the Lead Agency, LCWA may use this document to adopt the proposed Project and make findings regarding identified impacts. As this is an individual restoration project, the LCWA is conducting a CEQA analysis per the process outlined in the PEIR.

Restoration activities associated with this more detailed design requires discretionary approval from multiple agencies. These agencies and their permits/approvals are described in Table 6. It provides a potential, but not exhaustive, list of other responsible agencies, trustee agencies, and/or entities that may rely upon this IS/MND to grant subsequent discretionary approvals and/or permits, where applicable, related to Project implementation. The specific permits/approvals necessary depend on the nature and location of the activity.

LCWA will work closely with all the approving agencies to maintain communication and coordination throughout the implementation of program activities and receipt of the various permits/approvals.

Table 6: Other Permits and Approvals

Agency/Entity	Permit/Approval	Description	Timing
US Army Corps of Engineers	Clean Water Act Section 404 Permit, Rivers and Harbors Act Sections 9 and 10 Permits, Clean Water Act	Impacts to wetlands/Waters of the US	Prior to construction
US Fish and Wildlife Service and National Marine Fisheries Service	Endangered Species Act Section 7 Consultation	Federal threatened and endangered species	Prior to construction
California Department of Fish and Wildlife	Section 1602 Streambed Alteration Agreement, California Endangered Species Act	- Streambed alteration agreement - State threatened and endangered species	Prior to construction
California State Lands Commission	Encroachment Permits, new lease agreement	Encroachment onto State Lands	Prior to construction
California Coastal Commission	Coastal Development Permit	Development within	Prior to construction

Agency/Entity	Permit/Approval	Description	Timing
	(CDP) in City of Seal Beach	Coastal Zone	
South Coast Air Quality Management District	Permits to Construct and Operate	Air quality	Prior to construction
Santa Ana/Los Angeles Regional Water Quality Control Board	Section 401 Permit, National Pollution Discharge Elimination System, Stormwater Pollution Prevention Plan, permits to construct and operate	Impacts to Waters of the State	Prior to construction
Los Angeles County Department of Public Works and Flood Control District	Encroachment Permits (if needed)	Encroachment to flood control facilities (Haynes Cooling Channel)	Prior to construction
Orange County Public Works	Encroachment Permits (if needed)	Encroachment	Prior to construction
City of Seal Beach	Site plan review, grading permits, building permits, encroachment permits	Development within City jurisdiction	Prior to construction
City of Los Angeles Department of Water and Power	Encroachment Permits	Encroachment into DWP jurisdiction	Prior to construction
Los Cerritos Wetlands Authority	Certification of the Mitigated Negative Declaration, adoption of the Mitigation Monitoring and Reporting Plan	Documents and agreements	Prior to construction

2.12 Consultation with California Native American Tribe(s)

Tribal engagement is a significant focus for this project. This engagement has included tribal consultations, formation of a tribal advisory group specifically for this project, and development of a tribal cultural landscape study documenting the landscape and determining what features contribute to its significance and how those features can be protected, enhanced, and restored; this study will help guide the restoration design and the work of the Tribal Advisory Group.

The Los Cerritos Wetlands Authority initiated formal AB52 consultation requests on October 18, 2022 and a second round on November 23, 2022 – November 28, 2022 based on an updated Native American Heritage Commission (NAHC) list. The 30-day consultation response period ended on December 28, 2022 for both rounds. LCWA contacted a total of 17 tribes, and four tribal entities requested formal consultation (Table 7).

Table 7: List of California Native American Tribes Contacted per AB52

Tribe	Contact Name	Contact Date	Response
Juaneño Band of Mission Indians Acjachemen Nation – Belardes	Joyce Perry	10/18/2022	Requested meeting on 12/21/2022
Santa Rosa Band of Cahuilla Indians	Lovina Redner	10/18/2022	
Gabrielino-Tongva Tribe	Linda Candelaria	10/18/2022	Requested meeting on 11/8/2022
Gabrielino Tongva Indians of California Tribal Council	Robert Dorame	10/18/2022	Requested meeting on 11/15/2022
Gabrielino/Tongva Nation	Sandonne Goad	10/18/2022	Requested meeting on 10/29/2022
Gabrieleno Band of Mission Indians – Kizh Nation	Andrew Salas	10/18/2022	
Gabrieleno/Tongva San Gabriel Band of Mission Indians	Anthony Morales	10/18/2022	
Pala Band of Mission Indians	Shasta Gaughen	10/18/2022	
Soboba Band of Luiseno Indians	Isaiah Vivanco	10/18/2022	No (10/19/2022)

Tribe	Contact Name	Contact Date	Response
Ti'at Society/Traditional Council of Pimu	Cindi Alvitre	10/18/2022	
Gabrielino Shoshone Nation	Nick Rocha	10/18/2022	
Juaneño Band of Mission Indians Acjachemen Nation 84A	Heidi Lucero	10/18/2022	
Ewiiapaayp Band of Kumeyaay Indians	Robert Pinto	11/23/2022	
La Posta Band of Diegueno Mission Indians	Gwendolyn Parada	11/23/2022	
Mesa Grande Band of Diegueno Mission Indians	Michael Linton	11/28/2022	
Campo Band of Diegueno Mission Indians	Ralph Goff	11/28/2022	
Manzanita Band of Kumeyaay Nation	Angela Elliott Santos	11/28/2022	

A summary of AB52 Consultation is provided below:

- **Gabrielino-Tongva Tribe**
 - Consultation Meeting attendees:
 - Mr. Sam Dunlap (Cultural Resource Director, Gabrielino Tongva Nation)
 - Ms. Melissa Bahmanpour (Conservancy Project Development Manager, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy)
 - Ms. Sally Gee (Conservancy Project Development Analyst II, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy)
 - Ms. Lia Protopapadakis (Program Manager, USACE)
 - Ms. Desireé Martinez (President, Cogstone)
 - Mr. Eric Zahn (Principal Restoration Ecologist, Tidal Influence)
 - Ms. Stephanie Oslick (West Coast Director for Environmental Services, Moffatt & Nichol)
 - Video teleconference was held on 12/15/2022 from 1:00 – 1:36pm
 - Agenda included the following topics: Introductions, Tribal Remarks, CEQA Approach, Cultural Resources, Discussion of Mitigation Measures, and Next Steps and Closing
 - PowerPoint presentation was shown and sent after the meeting
 - Summary: Tribe is in favor of the project and everyone is anxious to see it be successful, fortunate to be participating in the project, everything is working smoothly to this point and the Tribe is willing to participate, would like to see photos/copy of Extended Phase 1 slides (as they go a long way when meeting with the Tribal Council) to share with Tribal Council
- **Gabrielino-Tongva Indians of California**
 - Consultation Meeting attendees:
 - Ms. Christina Conley (Cultural Resource Administrator, Gabrielino Tongva Indians of California)
 - Ms. Melissa Bahmanpour (Conservancy Project Development Manager, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy)
 - Ms. Sally Gee (Conservancy Project Development Analyst II, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy)
 - Ms. Desireé Martinez (President, Cogstone)
 - Mr. Eric Zahn (Principal Restoration Ecologist, Tidal Influence)

- Ms. Stephanie Oslick (West Coast Director for Environmental Services, Moffatt & Nichol)
- Video teleconference was held on 12/15/2022 from 2:00 – 2:34pm
- Agenda included the following topics: Introductions, Tribal Remarks, CEQA Approach, Cultural Resources, Discussion of Mitigation Measures, and Next Steps and Closing
- PowerPoint presentation was shown and sent after the meeting
- Summary: Level of respect is appreciated, pleased to be part of the process, good team of tribal leaders to where we want to go efficiently, been clear with process, everything has been done with a lot of thought, hold on additional comments until talk discussion with Tribal leadership regarding curation of tribal cultural resources, and interested in tribal access plan
- Gabrielino-Tongva Nation
 - Consultation Meeting attendees:
 - Chairwoman Sandonne Goad (Tribal Council Chairwoman, Gabrielino/Tongva Nation)
 - Ms. Melissa Bahmanpour (Conservancy Project Development Manager, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy)
 - Ms. Sally Gee (Conservancy Project Development Analyst II, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy)
 - Ms. Lia Protopapadakis (Program Manager, USACE)
 - Ms. Desireé Martinez (President, Cogstone)
 - Mr. Eric Zahn (Principal Restoration Ecologist, Tidal Influence)
 - Ms. Stephanie Oslick (West Coast Director for Environmental Services, Moffatt & Nichol)
 - Video teleconference was held on 12/16/2022 from 11:15am – 12:03pm
 - Agenda included the following topics: Introductions, Tribal Remarks, CEQA Approach, Cultural Resources, Discussion of Mitigation Measures, and Next Steps and Closing
 - PowerPoint presentation was shown and sent after the meeting
 - Summary: Discussed AB-52 process and how this meeting is organized; suggested adding signs for plants with following information: symbol of use(s) (medicine, food, textile, poisonous), name (scientific, common, Tongva name of plant); curation of tribal resources; contaminants; and appreciate LCWA meeting with her.
- Juaneño Band of Mission Indians, Acjachemen Nation
 - Consultation Meeting attendees:
 - Ms. Joyce Perry (Cultural Resource Director, Juaneño Band of Mission Indians, Acjachemen Nation)
 - Ms. Melissa Bahmanpour (Conservancy Project Development Manager, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy)
 - Ms. Sally Gee (Conservancy Project Development Analyst II, San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy)
 - Ms. Desireé Martinez (President, Cogstone)
 - Mr. Eric Zahn (Principal Restoration Ecologist, Tidal Influence)
 - Ms. Stephanie Oslick (West Coast Director for Environmental Services, Moffatt & Nichol)
 - Video teleconference was held on 1/19/2023 from 11:30am – 12:43pm
 - Agenda included the following topics: Introductions, Tribal Remarks, CEQA Approach,

Cultural Resources, Discussion of Mitigation Measures, and Next Steps and Closing

- PowerPoint presentation was shown and sent after the meeting
- Summary: Tribe is proud to be part for this project; main concern is avoidance of impacts to cultural sites/resources and Native American monitors should be present during ground disturbance; requested cultural sensitivity training for future contractors and monitors; discussed the status and importance of the Tribal Cultural Landscape Study and future curation of tribal cultural resources.

Environmental Factors Potentially Affected

All potential environmental impacts listed below are addressed in this IS. Those that are checked below have been identified as involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages for which mitigation measures have been identified to reduce the impact to less than significant.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Mineral Resources
<input type="checkbox"/> Agriculture and Forestry Resources	X Noise
<input type="checkbox"/> Air Quality	<input type="checkbox"/> Population/Housing
X Biological Resources	X Public Services
X Cultural Resources	<input type="checkbox"/> Recreation
<input type="checkbox"/> Energy	<input type="checkbox"/> Transportation
X Geology/Soils	X Tribal Cultural Resources
<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Utilities/Service Systems
X Hazards & Hazardous Materials	<input type="checkbox"/> Wildfire
X Hydrology/Water Quality	<input type="checkbox"/> Mandatory Findings of Significance
<input type="checkbox"/> Land Use/Planning	

2.13 Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet (Appendix A) have been added to the Project. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed Project MAY have a “potentially significant impact” or “potentially significant unless mitigated” on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a “potentially significant impact” or “potentially significant unless mitigated.” An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed Project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Signature:

Printed Name: Mark Stanfey

Date:

Title: Executive Officer

3 ENVIRONMENTAL ANALYSIS

The environmental analysis provided below in Section 3.0 is patterned after the IS Checklist recommended by the CEQA Guidelines, as amended, and used by the lead agency in its environmental review process. For the environmental review undertaken as part of this IS preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the Project's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the IS Checklist are stated and an answer is provided according to the analysis undertaken as part of this IS. The analysis considers the short-term, long-term, direct, indirect, and cumulative impacts of the Project. There are four possible responses to each question:

- **No impact.** The Project would not have any measurable environmental impact on the environment.
- **Less than significant impact.** The Project would have the potential to impact the environment, although this impact would be negligible, it would be below established thresholds that are considered to be significant and/or would be reduced to less than significant with the implementation of established plans, policies, procedures and/or regulations.
- **Less than significant with mitigation.** The Project would have the potential to generate impacts, which may be considered as a significant effect on the environment, although mitigation measures or changes to the Project's physical or operational characteristics would reduce these impacts to levels that are less than significant.
- **Potentially significant impact.** The Project could have impacts that may be considered significant and, therefore, additional analysis is required to identify mitigation measures that could reduce potentially significant impacts to less than significant levels.

The following is a discussion of potential Project impacts as identified in the Initial Study/Environmental Checklist. Explanations are provided for each item.

3.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) Would the Project have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. Any construction impacts to restore the wetlands and the scenic vista for the project site would be temporary, including from construction equipment that would operate in the area during this phase of the project. The project may change the view of existing scenic vistas, but the change would be positive, as the natural landscape would be restored as a result of project implementation.

b) Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. According to the California Department of Transportation (Caltrans) California Scenic Highway Mapping System, the closest Scenic Highway to the project site is State Route (SR) 1, or the Pacific Coast Highway (PCH). A small section of SR1 is located directly west of the project site and is currently Eligible State Scenic Highway – Not Officially Designated. Although eligible, this section of SR-1 is not a state scenic highway. There are no other Scenic Highways in Long Beach or Seal Beach. A Stewardship Site is proposed for the parcel that abuts SR-1, and that parcel is already designated Commercial Land Use by the City of Seal Beach. In addition, the views of the project site from PCH would be expected to improve as the project proposes to restore existing natural wetlands.

c) Would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the Project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Impact. The project site is in an urbanized area and would not conflict with applicable zoning and plan regulations. Programs that are applicable are the City of Seal Beach General Plan and Hellman Ranch Specific Plan. The project is consistent with these regulations since they emphasize preserving the natural habitat, public access, and open space.

d) Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The project is not expected to create any new surfaces that would increase the reflective surfaces or potential for light/glare. There may be increased lighting and windshield glare temporarily during construction and restoration activities, but public use for the project would be limited to the hours of sunrise to sunset. This would limit the need for exterior lighting and lighting along any public access points and all construction activity would be temporary in nature.

Avoidance, Minimization, and/or Mitigation Measures

Less than significant impacts to Aesthetics were identified and no additional mitigation measures are required beyond those presented in the PEIR as follows:

Mitigation Measure AES-1: Lighting Plan. Prior to issuance of a grading permit for each individual site that requires construction, a Lighting Plan for the individual site shall be developed and implemented that requires all exterior lighting to be directed downward and focused away from adjacent sensitive uses and habitats to encourage wayfinding and provide security and safety for individuals walking to and from parking areas.

Sources:

Caltrans, California Scenic Highway ArcGIS Map,

<https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>, accessed 10/7/2022.

Caltrans, California Scenic Highway Mapping System, <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>, accessed 10/7/2022

Los Cerritos Wetlands Authority (LCWA), 2020, Los Cerritos Wetlands Restoration Plan Draft Program EIR, Section 3.1 Aesthetics, 2/2020

Los Cerritos Wetlands Authority (LCWA), 2021, Los Cerritos Wetlands Restoration Plan, Final Program Environmental Impact Report. Prepared by ESA. Accessed 10/17/2022. Available at <https://intoloscerritoswetlands.org/the-lcws-eir/>

3.2 Agricultural and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. – Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing agricultural zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. There is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the project site. The project is in an urbanized area and has no farmland as a surrounding use.

b) Would the Project conflict with existing agriculture zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site is not zoned for agricultural use or subject to the Williamson Act. As such, the project would not conflict with any zoning or agricultural uses or a Williamson Act contract.

c) Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section

4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. The project site is not zoned for forest land, timberland, or timberland zoned Timberland Production. As such, the project would not conflict with any zoning or timberland uses, or any Timberland Production.

d) Would the Project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. Please refer to Response (c) above, as there will be no loss of forest land or conversion from forest to non-forest.

e) Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The project would not convert Farmland to non-agricultural use or forest land to non-forest use. The project site is not adjacent to any farmland or forest lands and does not have the possibility of affecting these types of lands.

Avoidance, Minimization and/or Mitigation Measures

No significant impacts to Agricultural and Forest Resources were identified, and no mitigation measures are required.

Sources

California Department of Conservation, Division of Land Resource Protection, Farmland Mapping & Monitoring Program, <http://www.conservation.ca.gov/dlrp/fmmp>, accessed 10/7/22

3.3 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. – Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The project would not conflict with any applicable air quality plans. The Final PEIR found that the only non-attained threshold for construction emissions for the larger Los Cerritos Wetlands Restoration Plan is NOx, and this project should contribute less than significant impacts for regional air quality standards, as multiple mitigation measures are already in place from the PEIR that would bring these effects down to a less than significant level. In addition, the Air Quality Study completed for the full program area analyzed 503 acres. The project site analyzed in this document has a footprint of 103.5 acres, meaning emissions for the proposed project are approximately 20.5% of the totals found in the PEIR. The anticipated number of pieces of construction equipment, the standard types of equipment, the amount of grading, the amount of remediation, and duration of construction for this project is therefore lower than what was anticipated and analyzed in the PEIR (LCWA, 2021).

As stated above, the only criteria pollutant for which the overall program area was found to exceed relevant thresholds was NOx for construction emissions only, and that it could be mitigated below the regional threshold for NOx. Specifically, Table 6 of the PEIR Air Quality Study (and incorporated into this document by reference) found that the maximum NOx emissions for construction would be 268 lbs./day, exceeding the South Coast Air Quality Management District (SCAQMD) threshold of 100 lbs./day. As the proposed project analyzes only 20.5% of the total acreage calculated for the exceedance, it is expected that the proposed project analyzed herein would emit a maximum of 54.94 lbs./day of NOx, substantially below the SCAQMD threshold and without need for mitigation. (See Appendix C).

b) Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact. The South Coast Air Basin is in non-attainment of the National Ambient Air Quality Standards (NAAQS) for O3 and PM2.5 and also in non-attainment of the California Ambient Air

Quality Standards (CAAQS) for O₃, PM₁₀, and PM_{2.5}. As discussed above, there would not be exceedances to the SCAQMD daily regional threshold for NO_x or any other criteria pollutant during either construction or operational phases of the proposed project.

c) Would the Project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. The PEIR Air Quality Study found potentially significant impacts to sensitive receptors at the program level based on SCAQMD Localized Significance Thresholds (LSTs) in Source Receptor Areas (SRAs) 4 and 18. Construction screening LSTs were used for a 5-acre area at a distance of 50 meters for SRA 4 and 25 meters for SRA 18. The analysis found that LSTs were exceeded due to residences found near the southern border of the program area. This analysis, however, was done for the full program area of over 500 acres which is approximately five times larger than the footprint of the proposed project analyzed herein. As a result, it is not expected that construction operations would affect the residences adjacent to the southern boundary of the project site, in addition to the fact that construction would be temporary in nature. Operations impacts do not have the potential to affect sensitive receptors since the project proposes to restore natural wetlands.

d) Would the Project result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?

Less Than Significant Impact. The only odor-causing emissions for this project would be temporary originating from construction equipment, as the temporary impact would cease once construction is complete. This is not the type of use that would typically be considered to emit significant odors, such as those found in certain types of industrial processes. Also, no physical structural buildings will be built as part of this project. Per the Final PEIR for the Los Cerritos Wetlands Restoration Plan, there will be mandatory compliance with SCAQMD Rules regarding odors and emissions from construction equipment and should result in less than significant impacts. (LCWA, 2021)

Avoidance, Minimization and/or Mitigation Measures

Less than significant impacts to Air Quality were identified and no additional mitigation measures are required beyond those presented in the PEIR as follows:

Mitigation Measure AQ-1: Construction NO_x Reduction Measures. The Applicant for the proposed program shall be responsible for the implementation of the following construction-related NO_x reduction measures:

- Require all off-road diesel-powered construction equipment greater than 50 horsepower (e.g., excavators, graders, dozers, scrapers, tractors, loaders, etc.) to comply with EPA-Certified Tier IV emission controls where commercially available. Documentation of all off-road diesel equipment used for this proposed program including Tier IV certification, or lack of commercial availability if applicable, shall be maintained and made available by the contractor to the local permitting agency (City of Seal Beach and City of Long Beach) for inspection upon request. In addition, all construction equipment shall be outfitted with Best Available Control Technology (BACT) devices certified by the California Air Resources Board (CARB) such as certified Level 3 Diesel Particulate Filter or equivalent. A copy of each unit's certified tier specification, BACT documentation, and CARB or South Coast Air Quality Management District operating permit shall be provided at the time of mobilization of each applicable unit of equipment. If Tier IV construction equipment is not available, LCWA shall require the contractor to implement other feasible alternative measures, such as reducing the number and/or horsepower rating of construction equipment, and/or limiting the number of individual construction subphases occurring simultaneously. The determination of commercial availability of Tier IV construction equipment shall be made by the City prior to issuance of grading or building permits based on applicant-provided evidence of the availability or unavailability of Tier IV equipment and/or evidence obtained by the City from expert sources such as construction contractors in the region.

- Require all main engines for tugboats to comply with EPA-Certified Tier IV emission controls.
- Eliminate the use of all portable generators. Require the use of electricity from power poles rather than temporary diesel or gasoline power generators.
- Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow, including during the transportation of oversized equipment and vehicles.
- Provide dedicated turn lanes for movement of construction trucks and equipment on and off-site. The location of these dedicated lanes shall be addressed in the Construction Trip Management Plan.
- Reroute construction trucks away from congested streets or sensitive receptor areas.
- Prohibit the idling of on-road trucks and off-road equipment in excess of 5 continuous minutes, except for trucks and equipment where idling is a necessary function of the activity, such as concrete pour trucks. The Applicant or construction contractor(s) shall post signs at the entry/exit gate(s), storage/lay down areas, and at highly visible areas throughout the active portions of the construction site of the idling limit.
- On-road heavy-duty diesel haul trucks with a gross vehicle weight rating of 19,500 pounds or greater used to transport construction materials and soil to and from the program area shall be engine model year 2010 or later or shall comply with the USEPA 2007 on-road emissions standards.

Sources

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.2 Air Quality. Accessed 11/11/2022.

Moffatt & Nichol, 2023, Southern Los Cerritos Wetlands Restoration Project – Air Quality/Greenhouse Gas Study. (Appendix C).

3.4 Biological Resources

Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A biological resources report was prepared to analyze biological resources within the project site, including project-level focused biological surveys as required by the PEIR (Tidal Influence, 2021a; Appendix D). Surveys were performed for special status flora and fauna, nesting birds and raptors, Belding’s savannah sparrow, burrowing owl, bats, and sensitive plant communities. Furthermore, a jurisdictional wetlands delineation was performed to identify areas under the jurisdiction of several regulatory agencies (Tidal Influence, 2021b; Appendix E). The surveys found a total of three special status plant species [*California boxthorn* (*Lycium californicum*), *Lewis’ evening primrose* (*Camissoniopsis lewisii*), and *southern tarplant* (*Centromadia parryi* ssp. *Australis*)]. Two individual California boxthorns were found on site by focused surveys and will be replaced at a 7:1 ratio. Two main occurrences of Lewis’ evening primrose totaling 3.76 acres were also found on site. The project has been designed to entirely avoid one of these occurrences and to minimize impacts on the second occurrence. However, any impacted individual Lewis’ evening primrose plants will be replaced at a 3:1 ratio. Likewise numerous occurrences of southern tarplant totaling 1.06 acres were found on site and any impacted southern tarplant individuals will be replaced at a 3:1 ratio. Seven special

status animal (all avian) species [American peregrine falcon (*Falco peregrinus anatum*), Belding’s Savannah Sparrow (*Passerculus sandwichensis beldingi*), California brown pelican (*Pelecanus occidentalis californicus*), loggerhead shrike (*Lanius ludovicianus*), California least tern (*Sternula antillarum browni*), osprey (*Pandion haliaetus*), and yellow-breasted chat (*Icteria virens*)] were present at the project site. Of note, 25 breeding pairs of Belding’s savannah sparrow (BSS) were documented. Five years of survey data was used to identify core Belding’s savannah sparrow breeding habitat and overall habitat extent. This project will not permanently impact this species’ habitat and instead will increase it from 21.10 acres to approximately 55.54 acres. Table 8 and Table 9 identify the plant and faunal species, respectively, identified in the PEIR as having a moderate-high potential for occurrence or present within the Project Area.

Table 8: Special Status Floral Species

Species Name	Status	Habitat Requirements	Potential to Occur In Project Area
California boxthorn <i>Lycium californicum</i>	CRPR: 4.2 Fed: None State: None	Perennial succulent shrub. Occurs along coastal salt marsh margins, coastal sage scrub, and coastal bluffs up to 500 feet in elevation.	Present: This species was documented within the project boundary by the project-level surveys and all previous surveys.
Coulter’s goldfields <i>Lasthenia glabrata</i> ssp. <i>Coulteri</i>	CRPR: 1B.1 Fed: None State: None	Annual herb. Occurs in playas, vernal pools, marshes and swamps (coastal salt).	High: Several occurrences of this species were identified in spring 2011 by Tidal Influence botanists within the project boundary. Occurrences were not documented in 2018 during the PEIR surveys. Additionally, no individuals were found during the project-level focused surveys.
Estuary seablite <i>Suaeda esteroa</i>	CRPR: 1B.2 Fed: None State: None	Perennial herb. Occurs in coastal salt marshes and swamps up to 15 feet in elevation.	High: This species has a high potential to occur on site due the proximity of other populations to the site including Steamshovel Slough, Zedler Marsh. Additionally suitable habitat exists within the Project Area. However, this species has not been historically documented within the project boundary and was not identified during project-level surveys.
Lewis’ evening primrose <i>Camissoniopsis lewisii</i>	CRPR: 3 Fed: None State: None	Annual herb. Occurs in coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland in sandy or clay soil up to 985 feet in elevation.	Present: This species was documented within the project boundary.
Red sand-verbena <i>Abronia maritima</i>	Fed: None State: None CRPR: 4.2	Perennial herb. Occurs in marshes, swamps, and coastal dunes. Limited to the higher zones of salt marsh habitat.	Moderate: Not documented on site, suitable habitat is not present within the project boundary.
Salt marsh bird’s beak <i>Chloropyron maritimum</i> ssp. <i>Maritimum</i>	CRPR: 1B.2 Fed: FE State: SE	Annual herb. Occurs in coastal salt marshes and coastal dunes up to 33 feet in elevation.	Moderate: No regional source populations exist but low quality suitable habitat is present within the project boundary.

Species Name	Status	Habitat Requirements	Potential to Occur In Project Area
Southern tarplant <i>Centromadia parryi</i> ssp. <i>Australis</i>	CRPR: 1B.1 Fed: None State: None	Annual herb. Occurs in disturbed areas near coastal salt marshes, grasslands, vernal pools and coastal sage scrub up to 1400 feet in elevation.	Present: This species was documented within the project boundary.
Southwestern spiny rush <i>Juncus acutus</i> ssp. <i>Leopoldii</i>	CRPR: 4.2 Fed: None State: None	Perennial herb. Occurs in coastal salt marshes, alkali seeps, and coastal strand habitats up to 1000 feet in elevation.	Moderate: This species has a moderate potential to occur as it is found naturally in the Isthmus Area, but this Project Area lacks the freshwater input that this species requires.
Ventura marsh milk-vetch <i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i>	CRPR: 1B.1 Fed: FE State: SE	Perennial herb. Occurs in open, sand to gravel, disturbed areas below 100 meters in elevation.	Moderate: Suitable habitat present on site; however, not documented within the project boundary.
Woolly seablite <i>Suaeda taxifolia</i>	CRPR: 4.2 Fed: None State: None	Perennial succulent shrub. Occurs along coastal salt marsh margins and coastal bluffs up to 45 feet in elevation.	Moderate: Documented in North and Isthmus Areas but not documented within the project boundary despite the existence of suitable habitat.

Table 9: Special Status Faunal Species

Species Name	Status	Habitat Requirements	Potential for Occurrence in Project Area
Invertebrates			
mimic tryonia (California brackish water snail) <i>Tryonia imitator</i>	Fed: None State: None CDFW: None CNDDDB: S2	Coastal areas with brackish waters. Moderate. Suitable habitat	Low: Suitable habitat present on site; however, this species was not documented in the Project Area.
Monarch—California overwintering population <i>Danaus plexippus pop. 1</i>	Fed: None State: None CDFW: None CNDDDB: S2S3	Roosts in winter in wind-protected tree groves along the California coast from northern Mendocino to Baja California, Mexico.	Moderate: This species has a moderate potential to occur due to presence of non-native Eucalyptus trees within and adjacent to the Project Area.
Mudflat tiger beetle <i>Cicindela trifasciata</i> <i>sigmoidea</i>	Fed: None State: None CDFW: None CNDDDB: N/A	This predatory beetle inhabits salt marshes, mudflats and salt pannes where they make burrows in the intertidal zone.	High: This species has been documented on tidal mudflats in Steamshovel Slough. Potential suitable habitat occurs within the Project Area.
Salt marsh tiger beetle <i>Cicindela</i> <i>hemorrhagica</i>	Fed: None State: None CDFW: N/A CNDDDB: N/A	Salt marshes, mudflats and salt pannes where they make burrows in the intertidal zone	High: This species has been documented on tidal mudflats in the North Area (Steamshovel Slough) and Isthmus Area (Zedler Marsh). Potential suitable habitat exists within the Project Area.
Salt marsh wandering skipper <i>Panoquina errans</i>	Fed: None State: None CDFW: None CNDDDB: S2	Coastal salt marsh and coastal strand areas dominated by salt grass.	High: This species has been documented in salt marsh vegetation in the North Area (Steamshovel Slough) and Isthmus Area (Zedler Marsh). Potential suitable habitat exists within the Project Area.

Species Name	Status	Habitat Requirements	Potential for Occurrence in Project Area
Sandy beach tiger beetle <i>Cicindela hirticollis grävada</i>	Fed: None State: None CDFW: None CNDDDB: S2	Forages in open unvegetated areas such as marsh pannes and levees. Larvae burrow in moist unvegetated substrates.	Moderate: This species has not been documented within the program area, but suitable habitat does exist within the Project Area.
Senile tiger beetle <i>Cicindela senilis frosti</i>	Fed: None State: None CDFW: None CNDDDB: S1	Known to inhabit tidal salt marshes and salt flats. Now very rare to find. Previously found in Bolsa Chica, Ventura, and Riverside County.	Moderate. This species has not been documented in the program area, but suitable habitat does exist within tidal areas of the Project Area.
Western beach tiger beetle <i>Cicindela latesignata latesignata</i>	Fed: None State: None CDFW: None CNDDDB: S1	Forages in open unvegetated areas such as marsh pannes and levees. Larvae burrow in moist unvegetated substrates.	Moderate: This species has a moderate potential to occur on the unvegetated flats found throughout the Project Area.
Western tidal-flat tiger beetle <i>Cicindela gabbii</i>	Fed: None State: None CDFW: None CNDDDB: S1	Open, unvegetated areas in or near salt marshes.	Moderate: This species has not been documented in the program area, but suitable habitat does exist within tidal areas of the Project Area.
Fish			
tidewater goby <i>Eucyclobobius newberryi</i>	Fed: FE State: None CDFW: CSC CNDDDB: S3	Inhabits benthic zone of shallow coastal lagoons and estuaries where brackish conditions occur.	Low: This species has not been documented in the program area. The Project Area's habitat is suboptimal due to a lack of brackish conditions.
Reptiles			
Pacific green sea turtle <i>Chelonia mydas</i>	Fed: FT State: None CDFW: None CNDDDB: S1	Green turtles are generally found in fairly shallow waters (except when migrating) inside reefs, bays, and inlets. The turtles are attracted to lagoons and shoals with an abundance of marine grass and algae.	Low: This migratory reptile is a resident in the Central Area (San Gabriel River) and has also been documented throughout Alamitos Bay. The current tidal connection to the Project Area does not allow for this species to gain access.
Red diamond rattlesnake <i>Crotalus ruber</i>	Fed: None State: None CDFW: CSC CNDDDB: S3	Chaparral, woodland, grassland, & desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas & dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	Low: Observed historically in the Isthmus Area, which was suspected to have been an individual released to the area. Suitable habitat is not present within the Project Area.
Western pond turtle <i>Emys marmorata</i>	Fed: None State: None CDFW: CSC CNDDDB: S3	Slow-moving permanent or intermittent streams, small ponds and lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and treatment lagoons. Abundant basking sites and cover necessary, including logs, rocks, submerged vegetation, and undercut banks.	Low: Not documented in the program area; Suitable freshwater habitat is not present within the Project Area.

Species Name	Status	Habitat Requirements	Potential for Occurrence in Project Area
Birds			
American peregrine falcon <i>Falco peregrinus anatum</i>	Fed: Delisted State: Delisted CDFW: CFP CNDDDB: S3S4	Near wetlands, lakes, rivers or other water, on cliffs, banks, dunes, mounds, also human-made structures.	Present: Observed on site. Suitable foraging habitat in Project Area; Suitable breeding sites are not present within the Project Area.
Bank swallow <i>Riparia riparia</i>	Fed: None State: ST CDFW: None CNDDDB: S2	Colonial nester; nests primarily in riparian and other lowland habitats west or the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	High: This species has a been previously unofficially observed in the Southern Los Cerritos Wetlands area and could occur within the Project Area.
Belding's savannah sparrow <i>Passerculus sandwichensis beldingi</i>	Fed: None State: SE CDFW: None SNDDDB: S3	Found in Coastal salt marshes. Nests in <i>Salicornia</i> sp. And about margins of tidal flats.	Present: This species has been documented using the site as breeding and foraging habitat.
Black skimmer <i>Rhynchops niger</i>	Fed: None State: None CDFW: CSC CNDDDB: S2	Nests on gravel bars, low islets and sandy beaches, in unvegetated sites.	High: Observed in other areas of the LCW Complex but not in the Project Area. Suitable foraging habitat exists within the Project Area. Suitable breeding habitat is not present within the Project Area.
Burrowing owl <i>Athene cucularia</i>	Fed: None State: None CDFW: CSC CNDDDB: S3	Open, dry annual or perennial grasslands, deserts & scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Low: Individuals were historically observed in Isthmus Area. Occurs as a migratory winter visitor but is not expected as a breeding species.
California brown pelican <i>Pelecanus occidentalis californicus</i>	Fed: Delisted State: Delisted CDFW: CFP CNDDDB: S3	Coastal, salt bays, ocean, beaches. Nests on coastal islands of small to moderate size that afford immunity from attack by ground-dwelling predators.	Present: Observed on site. Suitable foraging habitat present in tidal areas within the Project Area. Breeding habitat absent.
California least tern <i>Sternula antillarum browni</i>	Fed: FE State: SE CDFW: CFP CNDDDB: S2	Flat, vegetated substrates near the coast. Occurs near estuaries, bays, or harbors where fish is abundant.	Present: Has been historically observed foraging in tidal channel within the Project Area.
Least Bell's vireo <i>Vireo belii pusilus</i>	Fed: FE State: SE CDFW: None CNDDDB: S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Moderate: Was observed within the Isthmus Area in 2018. Suitable habitat is limited within the Project Area, but very active breeding habitat exists in the adjacent Heron Pointe bioswale east of the Project Area.
Merlin <i>Falco columbarius</i>	Fed: None State: None CDFW: WL CNDDDB: S3S4	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands & deserts, farms & ranches. Clumps of trees or windbreaks are required for roosting in open country.	High: Not observed in the Project Area. The PEIR stated the species was documented within the LCW Complex, but specific locations were not given; Suitable foraging habitat present in Project Area. Suitable breeding habitat absent from site.

Species Name	Status	Habitat Requirements	Potential for Occurrence in Project Area
Loggerhead shrike <i>Lanius ludovicianus</i>	Fed: None State: None CDFW: CSC CNDDDB: S4	Broken woodlands, savannah, pinyon-juniper, Joshua tree & riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting with perches for scanning and fairly dense shrubs and brush for nesting.	Present: Observed within the Project Area.
Northern harrier (nesting) <i>Circus cyaneus</i>	Fed: None State: None CDFW: CSC CNDDDB: S3	A variety of habitats, including open wetlands, grasslands, wet pasture, old fields, dry uplands, and croplands.	High: Northern harrier (non-nesting) have been observed foraging within the Project Area. There are no records of northern harrier nesting in the vicinity of the Project Area. Suitable foraging habitat is present throughout the Project Area. Limited potential for breeding in the Project Area.
Osprey <i>Pandion haliaetus</i>	Fed: None State: None CDFW: WL CNDDDB: S4	Found near rivers, lakes, coastal areas. Most common around major coastal estuaries and salt marshes, but can be found around large lakes, reservoirs, and rivers.	Present: Observed within the Project Area.
Ridgway's rail <i>Rallus obsoletus</i>	Fed: FE State: SE CDFW: CFP CNDDDB: S1	Found in salt marshes where cordgrass and pickleweed are the dominant vegetation. Requires dense growth of either pickleweed or cordgrass for nesting or escape cover, feeds on mollusks and crustaceans.	Moderate: Limited foraging habitat exists within the Project Area and breeding habitat is not present within the Project Area.
Short-eared owl <i>Asio flammeus</i>	Fed: None State: None CDFW: CSC CNDDDB: S3	Found in swamplands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	High: Not observed within the Project Area but observed in the PEIR investigation with no specific areas indicated. Suitable foraging habitat occurs during winter in tidal marsh areas in Project Area. Suitable breeding habitat absent.
Tricolored blackbird <i>Agelaius tricolor</i>	Fed: None State: ST CDFW: CSC CNDDDB: S1S2	Requires open water, protected nesting and foraging area with insect prey within a few km of the colony.	Low: This species was recorded on eBird in 2015 for an occurrence within the Central Area at the Marketplace Marsh. However, suitable foraging habitat is not present within Project Area.
Western snowy plover <i>Charadrius lexandrinus nivosus</i>	Fed: FT State: None CDFW: CSC CNDDDB: S2S3	Sandy or gravelly beaches along the coast, estuarine salt ponds, alkali lakes, and the Salton Sea. Foraging in wet sand within the intertidal zone in dry, sandy areas above the high tide, along edges of salt marshes, salt ponds, and lagoons. Nesting in open, flat, and sparsely vegetated beaches and sand spits.	Moderate: Not previously documented on site; however, suitable foraging and loafing habitat present within tidal marsh areas of Project Area. No potential nesting habitat exists within the Project Area.

Species Name	Status	Habitat Requirements	Potential for Occurrence in Project Area
Yellow-breasted chat <i>Icteria virens</i>	Fed: None State: None CDFW: CSC CNDDDB: S3	Summer resident; inhabits riparian thickets of willow & other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.	Present: Observed foraging within Project Area. Suitable breeding habitat is not present within the Project Area.
Mammals			
Pacific pocket mouse <i>Perognathus longimembris pacificus</i>	Fed: FE State: None CDFW: CSC CNDDDB: S1	Requires sparse vegetation coverage for maneuverability and sandy soils for burrowing.	Low: Not historically documented in the Project Area by focused surveys conducted in the 1990s; While suitable habitat is present in tidal marsh areas of the Project, this habitat is in poor condition. Furthermore, no local populations are known to occur.
south coast marsh vole <i>Microtus californicus stephensi</i>	Fed: None State: None CDFW: CSC CNDDDB: S1S2	Tidal marshes in Los Angeles, Orange and southern Ventura Counties.	Low: Not historically documented in the Project Area; While suitable habitat is present in tidal marsh areas of the Project, this habitat is in poor condition. Furthermore, no local populations are known to occur.
Southern California salt marsh shrew <i>Sorex ornatus salicornicus</i>	Fed: None State: None CDFW: CSC CNDDDB: S1	Coastal marshes in Los Angeles, Orange and southern Ventura Counties. Requires dense vegetation and woody debris for cover.	Moderate: Not historically documented in the Project Area; however, suitable habitat present in tidal marsh areas of the site and a local population exists nearby in Anaheim Bay.

STATUS CODES:

Federal

FE = Federally Endangered
 FT = Federally Threatened
 FSC = Federal Species of Special Concern

State

SE = State Endangered
 ST = State Threatened

CDFW

CSC = California Species of Special Concern
 CFP = California Fully Protected Species
 WL = Watch List

CNDDDB Element Ranking

S1 = Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or few populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.

S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.

S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer).

S4 = Apparently Secure—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors.

A question mark (?) denotes an inexact numeric rank due to insufficient samples over the full expected range of the type, but existing information points to this rank

- a) **Would the Project 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 California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

Less than Significant Impact with Mitigation. Three special status plant species and seven special status fauna species were found to be present on the project site. The Belding’s Savannah Sparrow is the only species that uses the project area for breeding, the other species use the site for foraging only. The PEIR documents multiple mitigation measures from the PEIR that would be incorporated into the project, which bring these

effects down to a level that is less than significant for both construction and operational impacts. Seven different mitigation measures including a Worker Education Awareness Program (WEAP) (**Mitigation Measure BIO-2**), biological monitoring, and a habitat replacement ratio (**Mitigation Measure BIO-9**) are included. (LCWA, 2021)

b) Would the Project 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 California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less Than Significant Impact with Mitigation. While it is possible that there will be a substantial but temporary adverse impact on a sensitive natural community during construction, multiple mitigation measures are already in place from the PEIR that would bring these effects down to a less than significant level (LCWA, 2021). These mitigation measures apply to the project analyzed herein. There are also no impacts to CDFW Sensitive Natural Communities or riparian habitats that are expected to occur during restoration work or long-term operations.

c) Would the Project 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?

Less Than Significant Impact with Mitigation. The project will not have a substantial adverse effect on state or federal wetlands, as the purpose of this project is to restore the wetland habitat. Temporary impacts during construction will be off-set by the implementation of the proposed project, as the goal of the project is to restore the wetlands and will result in a net-gain of state and federally protected wetlands.

d) Would the Project 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 native wildlife nursery sites?

Less Than Significant Impact. The project would improve species movement by restoring the habitats adjacent to the current wildlife corridors and will not impede the use of native wildlife nursery sites. There may be temporary effects due to the noise and dust that is usually seen with construction activities, but these effects are not significant due to the already existing surrounding uses that have these same effects (bike paths, main thoroughfares, oil operations, etc.).

e) Would the Project conflict with any local policies or ordinance protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The project will not conflict with any local policies or ordinances protecting biological resources, and specifically there are no impacts to any city-protected trees on the project site. Any trees needing to be trimmed or removed, will require permits from the City of Seal Beach Public Works Department.

Approximately 78 non-native trees will be removed: sixty-five (65) Mexican Fan Palm (10-15 inch diameter breast height (dbh)), three (3) Shamal Ash (3, 8 and 16 in. dbh), three (3) Blue Gum (4, 30 and 40 in. dbh), three (3) Brazilian Pepper (4, 4, and 14 in. dbh), one (1) Italian Stone Pine (34 in. dbh), one (1) Chinese Elm (14 in.

dbh), one (1) 1 Red River Gum (15 in. dbh), and one (1) Italian Cypress (16 in. dbh).

f) Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. There is one Natural Community Conservation Plan (NCCP) from the Orange County Transportation Authority for Coastal California Gnatcatchers in Orange County. This project will not conflict with any provisions of this NCCP (OCTA, 2016).

Avoidance, Minimization and/or Mitigation Measures

Less than significant impacts to Biological Resources were identified and no additional mitigation measures are required beyond those presented in the PEIR as follows (these measures may be modified via consultation with regulatory agencies):

Mitigation Measure BIO-1: Avoidance of Special-Status Plants. Prior to LCWA's approval of project plans or publication of subsequent CEQA documents, a qualified botanist/biologist shall conduct a habitat assessment to determine the presence or absence of suitable habitat for special-status plant species. If suitable habitat is determined to be present, focused plant surveys should be conducted in accordance with Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW, March 20, 2018). Consistent with the CDFW protocol, such focused special status plant surveys will be conducted during the appropriate blooming period for these species, with May and June likely having the highest number of species in flower. The results of focused special-status plant species will be incorporated into restoration design plans. The locations of any special-status plants within 25 feet of proposed disturbance areas shall be identified and mapped. Individual plants shall be flagged for avoidance and an avoidance buffer of at least 10 feet shall be established around the plant(s). If special-status plants cannot be avoided, they shall be incorporated into the proposed program's restoration design at a minimum ratio of 1:1 (one plant planted for every one plant removed, or 1 square foot of absolute cover planted for every 1 square foot of absolute cover removed). For special-status plant species with small population numbers (less than 50 individuals), higher mitigation ratios up to 7:1 will be incorporated, where on-site seed sources are available. Higher mitigation ratios of up to 3:1 will be incorporated where suitable habitat area can support populations of large individual numbers. Special-status plants that cannot be avoided shall be salvaged prior to impacts using species-specific propagation methods, such as transplanting, seed and cuttings. Seed collection shall occur during the appropriate time of year for each species. Seeds shall be propagated by a qualified horticulturalist or in a local nursery, and shall be incorporated into habitat-specific seed mixes that will be used for revegetation of the restoration areas. Plant transplantation of perennial species is a potential mitigation technique but must be used sparingly and only when receiving site parameters are a suitable match from the donor location. Performance standard for the success of propagated or transplanted species will be achieved with the survival of the appropriate number of individuals meeting the mitigation ratio (1:1 for most species) after five years of growth and the establishment of a self-propagating population for annual species for a minimum of three years after revegetation completion for a specific area.

Mitigation Measure BIO-2: Environmental Awareness Training and Biological Monitoring. Prior to commencement of activities within the program area, a qualified biologist shall prepare a Worker Environmental Awareness Program (WEAP) that provides a description of potentially occurring special-status species and methods for avoiding inadvertent impacts. The WEAP training shall be provided to all construction personnel. Attendees shall be documented on a WEAP training sign-in sheet. Initial grading and vegetation removal activities shall be supervised by a qualified monitoring biologist, who will be present during all construction activities. The biologist shall ensure that impacts to special-status plants and wildlife, including wetland vegetation, are minimized to the greatest extent feasible during implementation of program activities on the South, Isthmus, Central and North Areas. If any special-status wildlife species are encountered during construction and cannot be avoided, the monitoring biologist shall have the authority to temporarily halt construction activities until a plan for avoidance has been prepared and approved by CDFW, and implemented by the monitoring biologist. Relocation of a federal- or state-listed species shall not be allowed without first obtaining take authorization from USFWS and/or CDFW.

Mitigation Measure BIO-3: Belding's Savannah Sparrow Breeding Habitat. Prior to LCWA's approval of project plans or publication of subsequent CEQA documents, a qualified biologist shall map suitable Belding's savannah sparrow habitat as the location and amount of suitable habitat is anticipated to change over time. The results of habitat mapping will be incorporated into restoration design plans. Project activities shall be limited to July 16 through February 14 within suitable coastal marsh habitat to avoid impacts to breeding

Belding's savannah sparrow. Suitable Belding's savannah sparrow breeding habitat that will be impacted by the proposed program shall be created within the program area at a minimum ratio of 1:1 (area created:area impacted). Restored breeding habitat shall consist of a minimum 60 percent absolute cover of salt marsh vegetation, and shall consist of a hydrologic regime similar to that currently present in the North Area or South Area, respectively. Other unique conditions within coastal salt marsh communities shall exist as well, such as, similar slope, aspect, elevation, soil, and salinity. A Mitigation, Maintenance and Monitoring Program shall be prepared and approved by CDFW prior to implementation. The proposed program shall be implemented by a qualified restoration ecologist, and at a minimum, shall include success criteria and performance standards for measuring the establishment of Belding's savannah sparrow breeding habitat, responsible parties, maintenance techniques and schedule, 5-year monitoring and reporting schedule, adaptive management strategies, and contingencies. Moreover, in accordance the CESA, an Incidental Take Permit (or other mitigation options identified in accordance with Fish & Game Code, §§ 2080.1, 2081, subds. (b) and (c)) shall be obtained from CDFW if any Belding's savannah sparrow may be impacted during construction or operations of the program. The amount of potential take shall be determined prior to design approval of each restoration area based on consultation with CDFW. Lastly, take authorization shall be obtained prior to commencement of any ground disturbing activities.

Mitigation Measure BIO-4: Nesting Bird and Raptor Avoidance. A qualified biologist shall identify areas where nesting habitat for birds and raptors is present prior to LCWA's approval of project plans or publication of subsequent CEQA documents. To ensure the avoidance of impacts to nesting avian species, the following measures shall be implemented:

- Construction and maintenance activities shall be limited to the non-breeding season (September 1 through December 31) to the extent feasible. If construction or maintenance activities will occur during the avian nesting season (January 1 through August 31), a qualified biologist shall conduct pre-construction nesting avian surveys within no more than 5 days prior to the initiation of construction activities to identify any active nests. If a lapse in work of 5 days or longer occurs, another survey shall be conducted to verify if any new nests have been constructed prior to work being reinitiated.
- If active nests are observed, an avoidance buffer shall be demarcated by a qualified biologist with exclusion fencing and shall be maintained until the biologist determines that the young have fledged and the nest is no longer active.

Mitigation Measure BIO-5: Habitat Assessment and Pre-Construction Surveys for Burrowing Owl. A qualified biologist shall conduct a pre-construction burrowing owl survey of each restoration area (including required survey buffer areas) prior to LCWA's approval of project plans or publication of subsequent CEQA documents. If burrowing owls are detected, the habitat will be avoided and/or enhanced by the restoration design. In addition, a Burrowing Owl Management Plan shall be prepared and approved by CDFW, and implemented, prior to commencement of construction. The Burrowing Owl Management Plan shall be prepared in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation and shall address specific minimization and avoidance measures for burrowing owls, such as avoidance of occupied habitat, translocation of individuals, and on site revegetation.

Mitigation Measure BIO-6: Minimization of Light Spillage. A Program Lighting Plan shall be designed to minimize light trespass and glare into adjacent habitat areas prior to the commencement of activities within the program area. Nighttime lighting associated with the visitor center, parking lot, and trails shall be shielded downward and/or directed away from habitat areas to minimize impacts to nocturnal species, including breeding birds.

Mitigation Measure BIO-7: Pre-Construction Bat Surveys. A qualified biologist shall conduct a pre-construction bat survey of each restoration area prior to final approval of the area's restoration plan. If suitable bat roosting habitat is determined to be present, a presence/absence survey shall be conducted prior to

commencement of construction activities. A qualified biologist shall conduct the preconstruction clearance survey of suitable bat roosting habitat, such as mature palm trees. If bats are determined to be roosting, the biologist will determine whether it is a day roost (non-breeding) or maternity roost (lactating females and dependent young). If a day roost is determined, the biologist shall ensure that direct mortality to roosting individuals will not occur by requiring that trees with roosts are not directly impacted (e.g., removed) until after the roosting period.

If a maternity roost is determined to be present, the biologist shall determine a suitable buffer distance between construction activities and the roosting site. If direct disturbance to the maternity roost could occur, a Bat Exclusion Plan shall be prepared and approved by CDFW, and implemented, prior to impacting the roost. At a minimum, the Plan shall include avoidance and minimization measures to reduce potential impacts to breeding bats during construction activities and prescribed methods to safely and humanely evict bats from the roost to avoid mortality.

Mitigation Measure BIO-8: Focused Surveys for Special-Status Wildlife Species. Should suitable habitat occur for terrestrial or aquatic special-status species, a qualified biologist shall conduct focused habitat assessments and focused surveys to determine presence, absence and/or abundance for special-status wildlife species listed in Table 3.3-5. Both habitat assessments and focused surveys shall occur prior to LCWA's approval of the project plans or the publication of subsequent CEQA documents for any project site that potentially contains special-status species. Agency-approved protocols shall be used for specific species where appropriate during the required or recommended time of year. For all other target (special-status) species, prior to initiating surveys, survey methods shall be verified and approved in writing by CDFW and USFWS or NMFS for all state- and/or federally-protected species, respectively. If special-status species are detected, the project-specific restoration plan should be designed to minimize impacts to special-status wildlife to the greatest extent feasible and a Wildlife Avoidance Plan shall be prepared and approved by CDFW and USFWS or NMFS prior to commencement of construction. The Wildlife Avoidance Plan shall include specific species minimization and avoidance measures, measures to minimize impacts to occupied habitat, such as avoidance and revegetation, as well as relocation/translocation protocols. The plan shall require that a qualified biological monitor approved by CDFW be onsite prior to and during ground and habitat disturbing activities to move special status species or other wildlife of low mobility out of harm's way that could be injured or killed by ground disturbing activities.

If special-status species cannot be avoided, Incidental Take Permits from the National Marine Fisheries Service or United States Fish and Wildlife Service and California Department of Fish and Wildlife will be required. The amount of potential take shall be determined prior to design approval of each restoration area based on consultation with NMFS or USFWS and CDFW and take authorization shall be obtained prior to commencement of any ground disturbing activities. If an incidental take permit is being obtained, compensatory mitigation for the loss of occupied habitat shall be provided through purchase of credit from an existing mitigation bank, private purchase of mitigation lands, or on-site preservation, as approved by the resource agencies. Compensatory mitigation shall be provided at a minimum 1:1 ratio to reduce potential effects to less-than-significant levels.

Mitigation Measure BIO-9: Revegetation of Sensitive Natural Communities. Sensitive natural communities located on the program area include: *Anemopsis californica* – *Helianthus nuttallii* – *Solidago spectabilis* Herbaceous Alliance, *Arthrocnemum subterminale* Herbaceous Alliance, *Baccharis salicina* Provisional Shrubland Alliance, *Cressa truxillensis* – *Distichlis spicata* Herbaceous Alliance, *Frankenia salina* Herbaceous Alliance, *Isocoma menziesii* Shrubland Alliance, *Leymus cinereus* – *Leymus triticoides* Herbaceous Alliance, *Salicornia pacifica* Herbaceous Alliance, *Salix gooddingii* Woodland Alliance, *Schoenoplectus californicus* – *Typha (angustifolia, domingensis, latifolia)* Herbaceous Alliance and *Spartina foliosa* Herbaceous Alliance.

Prior to LCWA's approval of project plans or publication of subsequent CEQA documents, the area(s) that will be impacted shall be delineated and quantified using current Global Information System (ArcGIS) mapping software. Sensitive Natural Communities that will be impacted by the proposed program shall be created within the program area at a minimum ratio of 1:1 (area created:area impacted). A mitigation ratio of a minimum 2:1 for natural communities with a rarity ranking of S3 or higher will be incorporated into the restoration designs. Restored Sensitive Natural Communities shall consist of a minimum 60 percent absolute vegetation cover and shall include community-specific growing conditions, such as, similar slope, aspect, elevation, soil, and salinity. Moreover, soils within mudflat areas shall be salvaged (where feasible) for areas that are proposed for activities such as grading, and reintroduced in new mudflat and/or wetland areas that will be created. A Mitigation, Maintenance and Monitoring Program shall be prepared and approved by CDFW prior to implementation. The Program shall be implemented by a qualified restoration ecologist, and at a minimum, shall include success criteria and performance standards for measuring the establishment of Sensitive Natural Communities, responsible parties, maintenance techniques and schedule, 5-year monitoring and reporting schedule, adaptive management strategies, and contingencies.

Mitigation Measure BIO-10: Jurisdictional Resources Permitting. Prior to LCWA's approval of project plans or publication of subsequent CEQA documents, a jurisdictional delineation report shall be prepared that describes these jurisdictional resources and the extent of jurisdiction under the USACE, RWQCB, CDFW, and CCC. If it is determined during final siting that jurisdictional resources cannot be avoided, the project applicant shall be subject to provisions as identified below:

1. If avoidance is not feasible, prior to ground disturbance activities that could impact these aquatic features, the project applicant shall file the required documentation and receive the following.
 - a. Nationwide Permit or equivalent permit issued from USACE;
 - b. Water Quality Certification issued from the Los Angeles RWQCB;
 - c. Streambed Alteration Agreement issued from CDFW; and
 - d. Coastal Development Permit issued from CCC.
2. Compensatory mitigation for impacts to jurisdictional resources is not anticipated as the proposed program's goal is the restoration and expansion of coastal salt marsh within the proposed program.
3. The project proponent shall comply with the mitigation measures detailed in permits issued from the USACE, RWQCB, CDFW, and CCC.

Mitigation Measure BIO-11: Monitoring and Adaptive Management Plan. In conjunction with Section 3.8, Hydrology and Water Quality, a Monitoring and Adaptive Management Plan (MAMP) shall be prepared and implemented prior to commencement of construction or restoration activities. The MAMP shall provide a framework for monitoring site conditions in response to the proposed program implementation. The MAMP shall include provisions for conducting a pre-construction survey to collect baseline data for existing wetland function. The MAMP shall require that monitoring focus on the functional wetland values as well as sediment quality in areas subject to the greatest deposition from storm events and that are also not subject to regular tidal flushing, (e.g., the southwestern corner of the Long Beach Property site). The MAMP shall identify habitat functions, such as biotic structure and hydrology, that shall be monitored as part of the proposed program's monitoring and reporting requirements. The MAMP shall identify sediment quality monitoring requirements that shall be performed at a frequency that would capture the potential build-up of contaminants in the deposited sediment before concentrations are reached that would impact benthic macro-invertebrates and other sensitive species. The MAMP shall require that the findings of the monitoring efforts be used to identify any source of functional loss of wetlands and water quality impairment, and if discovered, provide measures to improve wetland function and for remediation of the sediment source area(s). Upon completion of restoration activities, the proposed project shall demonstrate a no net loss of aquatic resource functions and demonstrate an increase in wetland functions and values throughout the entire Project site. The MAMP shall be submitted

for review and approval to responsible permitting agencies prior to commencement of construction or restoration activities.

Sources

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.3 Biological Resources. Accessed 10/10/2022.

Tidal Influence, 2021a, Southern Los Cerritos Wetlands Restoration Project Biological Resources Report, 160 pages. (Appendix D).

Tidal Influence, 2021b, Southern Los Cerritos Wetlands Restoration Project Jurisdictional Delineation Report, 92 pages. (Appendix E).

Orange County Transportation Authority, M2 Natural Community Conservation Plan/Habitat Conservation Plan, 11/2016. Accessed at <https://www.octa.net/pdf/NCCP%20HCP%20FINAL.pdf>, <https://www.octa.net/About-OC-Go/OC-Go-Environmental-Programs/Preserve-Management/>, Accessed 10/14/2022.

3.5 Cultural Resources

Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Gabrielino (Gabrieleno, Tongva and Kizh) oral tradition states that they have always lived in their traditional territory, with their emergence into this world occurring at *Puvungna*, located in Long Beach (Martinez and Teeter, 2015). Similar oral traditions point to *Puvungna* as the origin point for the Juaneño (Acjachemen) into this world as well. The Gabrielino (Gabrieleno, Tongva and Kizh) and Juaneño (Acjachemen) lived in Los Angeles County and Northern Orange County practicing their traditional lifeways until European Contact. These groups suffered many abuses of European colonialism, including falling under the purview of the Roman Catholic missions of San Gabriel Arcángel and San Juan Capistrano from which the names Gabrielino, Gabrieleño, and Juaneño originate. Some present descendant groups may also identify themselves as Tongva, Kizh and Acjachemen. Approximately 50 major villages were located on the Channel Islands, along the coast, as well as in more inland areas. These groups have, in past and current times, used the local wetlands and its natural resources, including biological, water, and mineral resources, for food, shelter, and trade (McCawley, 1996). Native American archaeological sites are known to be located at California State University Long Beach, Rancho Los Alamitos Historic Ranch, and Heron Pointe (California Coastal Commission, 2018). Despite continuing misconception that the Gabrielino (Gabrieleno, Tongva and Kizh) are extinct, they and the Juaneño (Acjachemen) remain important voices in today’s California.

The Los Cerritos Wetlands Complex was identified by California Native American tribal members as a Tribal Cultural Landscape during Tribal Cultural Landscape Study and government-to-government consultation with the LCWA regarding the proposed program and as part of consultations related to the Los Cerritos Wetland Oil Consolidation and Restoration Project and this SLCWRP. The Los Cerritos Wetlands Complex is located in between the archaeological manifestations of the *Puvungna* and *Motuucheyngna* village sites and serves as an important resource to native peoples both historically and in current time. The California Coastal Commission acknowledged the significance of this area as part of the Los Cerritos Wetlands Oil Consolidation and Restoration Project (State Clearinghouse No. 2016041083) (California Coastal Commission, 2018). In the PEIR, the LCWA, in its discretion and as supported by substantial evidence provided by tribal groups, determined that the landscape is a Historical Resource (CEQA Guidelines Section 15064.5(a)(4)) and a Tribal Cultural Resource (Public Resource Code Section 21074(a)(2)). The LCWA then commissioned a Tribal Cultural Landscape Study that was completed as part of this Project’s cultural resources assessment. Based on consultation with Tribal members, the Tribal Cultural Landscape, named the *Puvungna* Traditional Cultural Landscape, is recommended eligible for listing in the National Register of Historic Places as a Traditional Cultural Property (or TCP). The significance of a TCP is often related to religious or ceremonial values that connect tribal communities to unique landscape features such as a mountain or bluff top, places with significant or special natural views, rivers and estuaries, vegetation and wildlife, or areas with burials or religious artifacts/monuments.

a) Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less than Significant Impact with Mitigation. An extended Phase 1 Cultural Investigation (**PEIR Mitigation Measure CUL-5**) did not reveal any new information, and the mitigation measures from the PEIR are more than adequate should any historical resource be revealed during construction or operation (Cogstone, 2023; Appendix F). A Tribal Cultural Landscape Study was prepared for this project, which informed the grading design to include a 50-foot buffer near sensitive cultural locations. Native American and archaeological monitors have monitored all earthwork and such monitoring will continue during future Project-related ground disturbance. Continued tribal consultation will ensure no significant effects occur to the *Puvungna* Traditional Cultural Landscape.

b) Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than Significant Impact with Mitigation. The project will not cause a substantial adverse change in the significance of an archeological resource with incorporation of the mitigation measures from the PEIR, as they are more than adequate should any archaeological resource be revealed during construction or operation. (LCWA, 2021). Tribal engagement has been extensive in an on-going fashion. All earthwork will have Native American Monitoring as well as archaeological monitoring.

c) Would the Project disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact with Mitigation. The project is unlikely to disturb human remains, as most of the soil that will be moved for the restoration has already been disturbed by previous land use activities. Should any be discovered, compliance with **PEIR Mitigation Measure CUL-18** will occur (LCWA, 2021). Any Native American remains uncovered would be repatriated to non-sensitive areas.

Avoidance, Minimization and/or Mitigation Measures

Less than significant impacts to Cultural Resources were identified and no additional mitigation measures are required beyond those presented in the PEIR as follows:

Mitigation Measure CUL-1: Cultural Resources Personnel Professional Qualifications Standards. Cultural resources consulting staff shall meet, or be under the direct supervision of an individual meeting, the minimum professional qualifications standards (PQS) set forth by the Secretary of the Interior (SOI) (codified in 36 Code of Federal Regulations [CFR] Part 61; 48 FR 44738-44739).

Mitigation Measure CUL-2: Historic Resources Assessment. For each near-term, mid-term, and long-term project, LCWA shall retain an SOI-qualified architectural historian (Qualified Architectural Historian) to conduct a historic resources assessment including: a records search at the South Central Coastal Information Center; a review of pertinent archives and sources; a pedestrian field survey; recordation of all identified historic resources on California Department of Parks and Recreation 523 forms; and preparation of a technical report documenting the methods and results of the assessment. The report(s) shall be submitted to LCWA for review and approval prior to LCWA's approval of project plans or publication of subsequent CEQA documents. The Qualified Architectural Historian shall file a copy of the final report(s) with the South Central Coastal Information Center within 30 days of its completion. A Historic Resources Assessment shall not be required for any project site that has already undergone the same or similar assessment as part of the program as long as the assessment is deemed adequate by the Qualified Architectural Historian for the purposes of the project currently under consideration.

Mitigation Measure CUL-3: Historic Resources Evaluation. Prior to LCWA's approval of project plans or the publication of subsequent CEQA documents for any project site containing unevaluated historic resources, a Qualified Architectural Historian shall determine if the project has the potential to result in adverse impacts to identified historic resources. For any historic resource that may be adversely impacted, the Qualified Architectural Historian shall evaluate the resource for listing in the California Register under Criteria 1-4 in order to determine if the resource qualifies as a historical resource. If a historic resource is found eligible, the Qualified Architectural Historian shall determine if the project would cause a substantial adverse change in the significance of the resource. If a substantial adverse change would occur (i.e., the project would demolish the resource or materially alter it in an adverse manner), the Qualified Architectural Historian shall develop appropriate mitigation measures to be incorporated into subsequent CEQA documents. These measures may include, but would not be limited to, relocation, HABS/HAER/HALS documentation, development and implementation of an interpretative and commemorative program, or development and implementation of a salvage plan. All evaluations and resulting technical reports shall be completed and approved by LWCA prior to LCWA's approval of project plans or publication of subsequent CEQA documents. The Qualified Architectural Historian shall file a copy of the final report(s) with the South Central Coastal Information Center within 30 days of its acceptance by LCWA.

Mitigation Measure CUL-4: Archaeological Resources Assessment. For each near-term, mid-term, and long-term project that involves ground disturbance, LCWA shall retain an SOI-qualified archaeologist (Qualified Archaeologist) to conduct an archaeological resources assessment including: a records search at the South Central Coastal Information Center; a Sacred Lands File search at the Native American Heritage Commission; updated geoarchaeological review incorporating previously unavailable data (such as geotechnical studies); a pedestrian field survey; recodation of all identified archaeological resources on California Department of Parks and Recreation 523 forms; and preparation of a technical report. The technical report shall: document the methods and results of the study; provide an assessment of the project's potential to encounter subsurface archaeological resources and human remains based on a review of the project plans, depth of proposed ground disturbance, and available project-specific geotechnical reports; and provide recommendations as to whether additional studies are warranted (i.e., Extended Phase I presence/absence testing or resource boundary delineation, Phase II testing and evaluation). The report(s) shall be submitted to LCWA for review and approval prior to approval of project plans or publication of subsequent CEQA documents. The Qualified Archaeologist shall file a copy of the final report(s) with the South Central Coastal Information Center within 30 days of its completion. An Archaeological Resources Assessment shall not be required for any project site that has already undergone the same or similar assessment as part of the program as long as the assessment is deemed adequate by the Qualified Archaeologist for the purposes of the project currently under consideration.

Mitigation Measure CUL-5: Extended Phase I Archaeological Investigation. Prior to LCWA's approval of project plans or the publication of subsequent CEQA documents for any project with a high potential to encounter subsurface archaeological resources as determined by the project-specific archaeological resources assessment conducted under **Mitigation Measure CUL-4: Archaeological Resources Assessment**, a Qualified Archaeologist shall conduct an Extended Phase I investigation to identify the presence/absence of subsurface archaeological resources. Prior to the initiation of field work for any Extended Phase I investigation, the Qualified Archaeologist shall prepare a work plan outlining the investigation's objectives, goals, and methodology (e.g., field and lab procedures, collection protocols, curation and reporting requirements, Native American input/monitoring, schedule, security measures). For investigations related to Native American archaeological resources, monitoring shall be required in accordance with **Mitigation Measures CUL-13: Native American Monitoring**. All work plans shall outline the protocols and procedures to be followed in the event that human remains and associated funerary objects or grave goods (i.e., artifacts associated with human remains) are encountered in accordance with **Mitigation Measure CUL-18: Human Remains Discoveries**. Disposition of archaeological materials recovered during Extended Phase I investigations shall be in accordance with **Mitigation Measure CUL-15: Curation and Disposition of Cultural Materials**.

Disposition of human remains and any associated funerary objects or grave goods shall be in accordance with **Mitigation Measure CUL-18: Human Remains Discoveries**. Projects occurring within the same timeframe may be covered by one overarching work plan. All investigations and resulting technical reports shall be completed and approved by LCWA prior to LCWA's approval of project plans or publication of subsequent CEQA documents. The Qualified Archaeologist shall file a copy of the final report(s) with the South Central Coastal Information Center within 30 days of its acceptance by LCWA. An Extended Phase I investigation shall not be required for any project site or resource that has already undergone the same or similar investigation as part of the program as long as the investigation is deemed adequate by the Qualified Archaeologist for the purposes of the project currently under consideration.

Mitigation Measure CUL-6: Phase II Archaeological Investigation. Prior to LCWA's approval of project plans or the publication of subsequent CEQA documents for any project site containing known unevaluated archaeological resources as identified by the project-specific archaeological resources assessment conducted under **Mitigation Measure CUL-4: Archaeological Resources Assessment**, a Qualified Archaeologist shall determine if the project has the potential to result in adverse impacts to identified archaeological resources (this may include initial Extended Phase I testing to identify the boundaries of resources, if necessary to properly assess potential impacts, following the procedures outlined under **Mitigation Measure CUL-5: Extended Phase I Archaeological Investigation**). For any archaeological resource that may be adversely impacted, the Qualified Archaeologist shall conduct Phase II testing and shall evaluate the resource for listing in the California Register under Criteria 1-4 in order to determine if the resource qualifies as a historical resource. LCWA shall consider the significance of the resource to Native American groups prior to requiring any Phase II subsurface testing. If the resource does not qualify as a historical resource, it shall then be considered for qualification as a unique archaeological resource. Native American or prehistoric archaeological resources shall also be considered as contributors to the tribal landscape to determine if they contribute to the significance of the landscape. Prior to the initiation of field work for any Phase II investigation, the Qualified Archaeologist shall prepare a work plan outlining the investigation's objectives, goals, and methodology (e.g., research design, field and lab procedures, collection protocols, data requirements/thresholds, evaluation criteria, curation and reporting requirements, Native American input/monitoring, schedule, security measures). The Qualified Archaeologist and LCWA shall coordinate with participating Native American Tribes during preparation of Phase II work plans related to Native American archaeological resources to ensure cultural values ascribed to the resources, beyond those that are scientifically important, are considered in the evaluation, including those related to the tribal cultural landscape. For investigations related to Native American archaeological resources, Native American Tribal coordination and monitoring shall be required in accordance with **Mitigation Measures CUL-12: Native American Coordination** and **CUL-13: Native American Monitoring**. All work plans shall outline the protocols and procedures to be followed in the event that human remains and associated funerary objects or grave goods (i.e., artifacts associated with human remains) are encountered in accordance with **Mitigation Measure CUL-18: Human Remains Discoveries**. Disposition of archaeological materials recovered during Extended Phase I or Phase II investigations shall be in accordance with **Mitigation Measure CUL-15: Curation and Disposition of Cultural Materials**. Disposition of human remains and any associated funerary objects or grave goods shall be in accordance with **Mitigation Measure CUL-18: Human Remains Discoveries**. Projects occurring within the same timeframe may be covered by one overarching work plan. All investigations and resulting technical reports shall be completed and approved by LWCA prior to LCWA's approval of project plans or publication of subsequent CEQA documents. The Qualified Archaeologist shall file a copy of the final report(s) with the South Central Coastal Information Center within 30 days of its acceptance by LCWA.

Mitigation Measure CUL-7: Avoidance and Preservation in Place of Archaeological Resources. In the event historical resources or unique archaeological resources or resources that contribute to the significance of the tribal cultural landscape are identified, avoidance and preservation in place shall be the preferred manner of mitigating impacts to such resources. Preservation in place maintains the important relationship between artifacts and their archaeological context and also serves to avoid conflict with traditional and religious values

of groups who may ascribe meaning to the resource. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. If avoidance is determined by the LCWA to be infeasible in light of factors such as the nature of the find, proposed project design, costs, and other considerations, then that resource shall be subject to **Mitigation Measure CUL-8: Phase III Archaeological Resources Data Recovery and Treatment Plan**. If avoidance and preservation in place of a resource is determined by LCWA to be feasible, then that resource shall be subject to **Mitigation Measure CUL-9: Archaeological Resources Monitoring and Mitigation Plan**.

Mitigation Measure CUL-8: Phase III Archaeological Resources Data Recovery and Treatment Plan. A Qualified Archaeologist shall prepare a Phase III Archaeological Resources Data Recovery and Treatment Plan for significant archaeological resources (i.e., resources that qualify as historical resources or unique archaeological resources or that contribute to the significance of the tribal cultural landscape) that will be adversely impacted by a project. Consistent with CEQA Guidelines Section 15126.4, data recovery shall not be required for a historical resource if LCWA determines that testing or studies already completed have adequately recovered the scientifically consequential information for resources eligible under California Register Criterion 4. The Qualified Archaeologist and LCWA shall consult with interested Native American Tribes for recovery/treatment of Native American archaeological resources during preparation of the plan(s) to ensure cultural values ascribed to the resources, beyond those that are scientifically important, are considered in assessing treatment, including those related to the tribal cultural landscape. Projects occurring within the same timeframe may be covered by one overarching plan. The plan(s) shall be submitted to LCWA for review and approval prior to the start of field work for data recovery efforts for resources that are eligible under California Register Criterion 4 (data potential). Data recovery field work shall be completed prior to the start of any project-related ground disturbance. Treatment for archaeological resources that are eligible under California Register Criterion 1 (events), Criterion 2 (persons), or Criterion 3 (design/workmanship) shall be completed within 3 years of completion of the project. Each plan shall include:

a. *Research Design.* The plan shall outline the applicable cultural context(s) for the region, identify research goals and questions that are applicable to each resource or class of resources, and list the data needs (types, quantities, quality) required to answer each research question. The research design shall address all four California Register Criteria (1–4) and identify the methods that will be required to inform treatment, such as subsurface investigation, documentary/archival research, and/or oral history, depending on the nature of the resource. The research design shall also include consideration of Native American or prehistoric archaeological resources as contributors to the tribal cultural landscape.

b. *Data Recovery for Resources Eligible under Criterion 4.* The plan shall outline the field and laboratory methods to be employed, and any specialized studies that will be conducted, as part of the data recovery effort for resources that are eligible under California Register Criterion 4 (data potential). If a resource is eligible under additional criteria, treatment beyond data recovery shall be implemented (see **CUL-6c**).

c. *Treatment for Resources Eligible under Criteria 1, 2, or 3.* In the event a resource is eligible under California Register Criterion 1 (events), Criterion 2 (persons), or Criterion 3 (design/workmanship), then resource-specific treatment shall be developed to mitigate project-related impacts to the degree feasible. This could include forms of documentation, interpretation, public outreach, ethnographic and language studies, publications, and educational programs, depending on the nature of the resource, and may require the retention of additional technical specialists. Treatment measures shall be generally outlined in the plan based on existing information on the resource. Once data recovery is completed and the results are available to better inform resource-specific treatment, the treatment measures shall be formalized and implemented. Treatment shall be developed by the Qualified Archaeologist in consultation with LCWA and Native American Tribal representatives for resources that are Native American in origin, including those related to the tribal cultural landscape.

D. *Security Measures.* The plan shall include recommended security measures to protect archaeological resources from vandalism, looting, and non-intentionally damaging activities during field work.

e. *Procedures for Discovery of Human Remains and Associated Funerary Objects or Grave Goods.* The plan shall outline the protocols and procedures to be followed in the event that human remains and associated funerary objects or grave goods are uncovered. Protocols and procedures shall be in accordance with **Mitigation Measure CUL-18: Human Remains Discoveries.**

f. *Reporting Requirements.* Upon completion of data recovery for resources eligible under Criterion 4, the Qualified Archaeologist shall document the findings in an Archaeological Data Recovery Report. The draft Archaeological Data Recovery Report shall be submitted to the LCWA within 360 days after completion of data recovery, and the final Archaeological Data Recovery Report shall be submitted to LCWA within 60 days after the receipt of LCWA comments. The Qualified Archaeologist shall submit the final Archaeological Data Recovery Report to the South Central Coastal Information Center within 30 days of its acceptance by LCWA.

Upon completion of all other treatment for resources eligible under Criteria 1, 2, or 3, the Qualified Archaeologist shall document the resource-specific treatment that was implemented for each resource and verification that treatment has been completed in a technical document (report or memorandum). The document shall be provided to LCWA within 30 days after completion of treatment.

g. *Curation or Disposition of Cultural Materials.* The plan shall outline the requirements for final disposition of all cultural materials collected during data recovery. Disposition of all archaeological materials shall be in accordance with **Mitigation Measure CUL-15: Curation and Disposition of Cultural Materials.** Disposition of human remains and any associated funerary objects or grave goods shall be in accordance with **Mitigation Measure CUL-18: Human Remains Discoveries.**

h. *Protocols for Native American Coordination and Monitoring.* The plan shall outline the role and responsibilities of Native American Tribal representatives in accordance with **Mitigation Measure CUL-12: Native American Coordination.** It shall outline communication protocols, timelines for review of archaeological resources documents, and provisions for Native American monitoring. The plan shall include provisions for full-time Native American monitoring of all data recovery field work for resources that are Native American in origin, including those related to the tribal cultural landscape, in accordance with **Mitigation Measure CUL-13: Native American Monitoring.**

Mitigation Measure CUL-9: Archaeological Resources Monitoring and Mitigation Plan. For each near-term, mid-term, and long-term project that involves ground disturbance, a Qualified Archaeologist shall prepare an Archaeological Resources Mitigation and Monitoring Plan taking into account the final LCWA-approved project design plans, depths/locations of ground disturbance, proximity to known archaeological resources, and potential to encounter subsurface archaeological resources. Projects occurring within the same timeframe may be covered by one overarching plan. The Qualified Archaeologist and LCWA shall coordinate with participating Native American Tribes during preparation of the plan(s). Each plan shall include:

a. *Establishment of Environmentally Sensitive Areas.* The plan shall outline areas that will be designated Environmentally Sensitive Areas (including maps), if needed. Significant or unevaluated archaeological resources that are being avoided and are within 50 feet of the construction zone shall be designated as Environmentally Sensitive Areas. The resources shall be *delineated* with exclusion markers to ensure avoidance. These areas shall not be marked as archaeological resources, but shall be designated as “exclusion zones” on project plans and protective fencing in order to discourage unauthorized disturbance or collection of artifacts.

b. *Provisions for Archaeological Monitoring.* The plan shall outline requirements for archaeological monitoring and the archaeological monitor(s) role and responsibilities in accordance with **Mitigation Measure**

CUL-11: Archaeological Resources Monitoring. Ground *disturbance* in locations/depths that have been previously monitored as part of the program shall not be subject to additional monitoring.

c. *Procedures for Discovery of Archaeological Resources.* Procedures to be implemented in the event of an archaeological discovery shall be fully defined in the plan and shall be in accordance with **Mitigation Measure CUL-14: Archaeological Resources Discoveries.** Procedures outlined shall include stop-work and protective measures, notification protocols, procedures for significance assessments, and appropriate treatment measures. The plan shall state avoidance or preservation in place is the preferred manner of mitigating impacts to historical resources, unique archaeological resources, and contributors to the significance of the tribal cultural landscape, but shall provide procedures to follow should avoidance be infeasible in light of factors such as the nature of the find, project design, costs, and other considerations.

If, based on the recommendation of a Qualified Archaeologist, it is determined that a discovered archaeological resource constitutes a historical resource or unique archaeological resource or is a contributor to the significance of the tribal cultural landscape, then avoidance and preservation in place shall be the preferred manner of mitigating impacts to such a resource in accordance with **Mitigation Measure CUL-7: Avoidance and Preservation in Place of Archaeological Resources.** In the event that preservation in place is determined to be infeasible and data recovery through excavation is the only feasible mitigation available, an Archaeological Resources Data Recovery and Treatment Plan shall be prepared and implemented following the procedures outlined in **Mitigation Measure CUL-8: Phase III Archaeological Resources Data Recovery and Treatment Plan.** LCWA shall consult with appropriate Native American representatives in determining treatment of resources that are Native American in origin to ensure cultural values ascribed to the resources, beyond those that are scientifically important, are considered, including those related to the tribal cultural landscape.

D. *Procedures for Discovery of Human Remains and Associated Funerary Objects or Grave Goods.* The plan shall outline the protocols and procedures to be followed in the event that human remains and associated funerary objects or grave goods are uncovered. Protocols and procedures shall be in accordance with **Mitigation Measure CUL-18: Human Remains Discoveries.**

e. *Reporting Requirements.* The plan shall outline provisions for weekly and final reporting. The Qualified Archaeologist shall prepare weekly status reports detailing activities and locations observed (including maps) and summarizing any discoveries for the duration of monitoring to be submitted to LCWA via email for each week in which monitoring activities occur. The Qualified Archaeologist shall prepare a draft Archaeological Resources Monitoring Report and submit it to LCWA within 180 days after completion of the monitoring program or treatment for significant discoveries should treatment extend *beyond* the cessation of monitoring. The final Archaeological Resources Monitoring Report shall be submitted to LCWA within 60 days after receipt of LCWA comments. The Qualified Archaeologist shall also submit the final Archaeological Resources Monitoring Report to the South Central Coastal Information Center.

f. *Curation or Disposition of Cultural Materials.* The plan shall outline the requirements for final disposition of all cultural materials collected during data recovery. Disposition of all archaeological materials shall be in accordance with **Mitigation Measure CUL-15: Curation and Disposition of Cultural Materials.** Disposition of human remains and any associated funerary objects or grave goods shall be in accordance with **Mitigation Measure CUL-18: Human Remains Discoveries.**

g. *Protocols for Native American Coordination and Monitoring.* The plan shall outline requirements for Native American coordination and monitoring, and the Native American monitor(s) role and responsibilities in accordance with **Mitigation Measures CUL-12: Native American Coordination** and **CUL-13: Native American Monitoring.**

Mitigation Measure CUL-10: Construction Worker Cultural Resources Sensitivity Training. For each near-term, mid-term, and long-term project that involves ground disturbance, LCWA shall retain a Qualified

Archaeologist to implement a cultural resources sensitivity training program. The Qualified Archaeologist, or their designee, and a Native American representative shall instruct all construction personnel of the importance and significance of the area as a tribal cultural landscape, the types of archaeological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains, confidentiality of discoveries, and safety precautions to be taken when working with cultural resources monitors. In the event that construction crews are phased, additional trainings shall be conducted for new construction personnel. LCWA or their contractors shall ensure construction personnel are made available for and attend the training. LCWA shall retain documentation demonstrating attendance.

Mitigation Measure CUL-11: Archaeological Resources Monitoring. For each near-term, mid-term, and long-term project, full-time archaeological monitoring of ground disturbance (i.e., demolition, pavement removal, pot-holing or auguring, boring, drilling, grubbing, vegetation removal, brush clearance, weed abatement, grading, excavation, trenching, or any other activity that has potential to disturb soil) shall be conducted in areas and at depths where there is a potential to encounter archaeological materials or human remains, including excavations into existing artificial fill and native soils, based on the project-specific archaeological resources assessment prepared under **Mitigation Measure CUL-4: Archaeological Resources Assessment**. Ground disturbance in locations/depths that have been previously monitored as part of the program shall not be subject to additional monitoring. The archaeological monitor(s) shall be familiar with the types of resources that could be encountered and shall work under the direct supervision of a Qualified Archaeologist. The number of archaeological monitors required to be on site during ground-disturbing activities is dependent on the construction scenario, specifically the number of pieces of equipment operating at the same time, the distance between these pieces of equipment, and the pace at which equipment is working, with the goal of monitors being able to effectively observe soils as they are exposed. Generally, work areas more than 500 feet from one another will require additional monitors. The archaeological monitor(s) shall keep daily logs detailing the types of activities and soils observed, and any discoveries. Archaeological monitor(s) shall have the authority to halt and re-direct ground disturbing activities in the event of a discovery until it has been assessed for significance and treatment implemented, if necessary, based on the recommendations of the Qualified Archaeologist in coordination with LCWA, and the Native American representatives in the event the resource is Native American in origin, and in accordance with the protocols and procedures outlined in **Mitigation Measure CUL-8: Phase III Archaeological Resources Data Recovery and Treatment Plan**. Reporting of archaeological monitoring shall be conducted in accordance with the provisions outlined in **Mitigation Measure CUL-9: Archaeological Resources Monitoring and Mitigation Plan**.

Mitigation Measure CUL-12: Native American Coordination. LCWA shall seek input from participating Native American Tribes¹ during the preparation of documents required under **Mitigation Measures CUL-5: Extended Phase I Archaeological Investigation, CUL-6: Phase II Archaeological Investigation, CUL-8: Phase III Archaeological Resources Data Recovery and Treatment Plan, Mitigation Measure CUL-9: Archaeological Resources Monitoring and Mitigation Plan, and CUL-14: Archaeological Resources Discoveries**, including but not limited to work plans, research designs, treatment plans, and associated technical reports. LCWA shall provide participating Native American Tribes with electronic copies of draft documents and afford them 30 days from receipt of a document to review and comment on the document. Native American comments will be provided in writing for consideration by LCWA. LCWA shall document comments and how the comments were/were not addressed in a tracking log.

¹ The term “Participating Native American Tribes” includes those California Native American Tribes who consulted with LCWA pursuant to Assembly Bill 52 (AB 52) during the preparation of the PEIR and who continue to choose to consult with LCWA, as well as those California Native American Tribes who did not participate in consultation on the PEIR but who choose to consult with LCWA pursuant to AB 52 on future CEQA documents.

Mitigation Measure CUL-13: Native American Monitoring. For each near-term, mid-term, and long-term project, full-time Native American monitoring of ground disturbance (i.e., demolition, pavement removal, pot-holing or auguring, boring, drilling, grubbing, vegetation removal, brush clearance, weed abatement, grading, excavation, trenching, or any other activity that has potential to disturb soil) shall be conducted in areas and at depths where there is a potential to encounter archaeological materials or human remains, including excavations into existing artificial fill and native soils, based on the project-specific study prepared under **Mitigation Measure CUL-4: Archaeological Resources Assessment.** LCWA shall retain a Native American monitor(s) from a California Native American Tribe that is culturally and geographically affiliated with the program area (according to the California Native American Heritage Commission) to conduct the monitoring. If more than one Tribe is interested in monitoring, LCWA shall contract with each Tribe that expresses interest and prepare a monitoring rotation schedule. LCWA shall rotate monitors on an equal and regular basis to ensure that each Tribal group has the same opportunity to participate in the monitoring program. If a Tribe cannot participate when their rotation comes up, they shall forfeit that rotation unless LCWA can make other arrangements to accommodate their schedule. The number of Native American monitors required to be on site during ground disturbing activities is dependent on the construction scenario, specifically the number of pieces of equipment operating at the same time, the distance between these pieces of equipment, and the pace at which equipment is working, with the goal of monitors being able to effectively observe soils as they are exposed. Generally, work areas more than 500 feet from one another require additional monitors.

Native American monitors shall have the authority to halt and re-direct ground disturbing activities in the event of a discovery until it has been assessed for significance. The Native American monitor(s) shall also monitor all ground disturbance related to subsurface investigations and data recovery efforts conducted under **Mitigation Measures CUL-5: Extended Phase I Archaeological Investigation, CUL-6: Phase II Archaeological Investigation, and CUL-8: Phase III Archaeological Resources Data Recovery and Treatment Plan** for any resources that are Native American in origin, according to the rotation schedule, including those related to the tribal cultural landscape.

Mitigation Measure CUL-14: Archaeological Resources Discoveries. In the event archaeological resources are encountered during construction of the proposed program, all activity in the vicinity of the find shall cease (within 100 feet), and the protocols and procedures for discoveries outlined in **Mitigation Measure CUL-9: Archaeological Resources Monitoring and Mitigation Plan** shall be implemented. The discovery shall be evaluated for potential significance by the Qualified Archaeologist. If the Qualified Archaeologist determines that the resource may be significant (i.e., meets the definition for historical resource in CEQA Guidelines subdivision 15064.5(a) or for unique archaeological resource in PRC subdivision 21083.2(g) or is a contributor to the tribal cultural landscape), the Qualified Archaeologist shall develop an Archaeological Resources Data Recovery and Treatment Plan for the resource following the procedures outlined in **Mitigation Measure CUL-8: Phase III Archaeological Resources Data Recovery and Treatment Plan.** When assessing significance and developing treatment for resources that are Native American in origin, including those related to the tribal cultural landscape, the Qualified Archaeologist and LCWA shall consult with the appropriate Native American representatives. The Qualified Archaeologist shall also determine if work may proceed in other parts of the project site while data recovery and treatment is being carried out. LCWA shall consult with the State Lands Commission Staff Attorney regarding any cultural resources discoveries on state lands.

Mitigation Measure CUL-15: Curation and Disposition of Cultural Materials. LCWA shall curate all Native American archaeological materials, with the exception of funerary objects or grave goods (i.e., artifacts associated with Native American human remains). LCWA shall consult with Native American representatives regarding the final disposition of Native American archaeological materials and on the selection of the curation facility, with preference given to tribal museums. LCWA shall first consider repositories that are accredited by the American Association of Museums and that meets the standards outlined in 36 CFR 79.9. If a suitable accredited repository is not identified, then LCWA shall consider non-accredited repositories as long as they meet the minimum standards set forth by 36 CFR 79.9. If a suitable non-accredited repository is not identified,

then LCWA shall donate the collection to a local California Native American Tribe(s) (Gabrielino or Juañeno). Disposition of Native American human remains and associated funerary objects or grave goods shall be determined by the landowner in consultation with LCWA and the Most Likely Descendant in accordance with **Mitigation Measure CUL-18: Human Remains Discoveries**.

LCWA shall curate all historic-period archaeological materials that are not Native American in origin at a repository accredited by the American Association of Museums that meets the standards outlined in 36 CFR 79.9. If no accredited repository accepts the collection, then LCWA may curate it at a non-accredited repository as long as it meets the minimum standards set forth by 36 CFR 79.9. If neither an accredited nor a non-accredited repository accepts the collection, then LCWA shall offer the collection to a public, non-profit institution with a research interest in the materials, or to a local school or historical society in the area for educational purposes. If no institution, school, or historical society accepts the collection, LCWA may retain it for on site display as part of its interpretation and educational elements.

The final disposition of cultural resources recovered on state lands under the jurisdiction of the California State Lands Commission must be approved by the Commission.

Prior to start of each project, LCWA shall obtain a curation agreement and shall be responsible for payment of fees associated with curation for the duration of the program.

Mitigation Measure CUL-16: Future Native American Input. LCWA shall consult with participating California Native American Tribes,² to the extent that they wish to participate, during future design of project-level components, plant and native plant selections or palettes, and development of content for educational and interpretative elements, such as signage and Visitors Center displays.

Mitigation Measure CUL-17: Tribal Access Plan. Prior to the start of construction, LCWA shall develop a written access plan to preserve and enhance tribal members' access to, and use of, the restoration project area for religious, spiritual, or other cultural purposes. This plan will allow access to the extent LCWA has the authority to facilitate such access, and be consistent with existing laws, regulations, and agreements governing property within the program area. The access plan may place restrictions on access into certain areas, such as oil operations and other exclusive easements the LCWA does not have access rights to. This access plan shall be developed in coordination with participating California Native American Tribes, to the extent that they wish to participate.

Mitigation Measure CUL-18. Human Remains Discoveries: If human remains are encountered, then LCWA or its contractor shall halt work in the vicinity (within 100 feet) of the discovery and contact the appropriate County Coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5, which requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the County Coroner determines the remains are Native American, then the Coroner will notify the California Native American Heritage Commission (NAHC) within 24 hours in accordance with Health and Safety Code subdivision 7050.5I, and Public Resources Code Section 5097.98. The California Native American Heritage Commission shall then identify the person(s) thought to be the Most Likely Descendant (MLD). The MLD may, with the permission of the land owner, or his or her authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any

² The term "Participating Native American Tribes" includes those California Native American Tribes who consulted with LCWA pursuant to AB 52 during the preparation of this PEIR and who continue to choose to consult with LCWA, as well as those California Native American Tribes who did not participate in consultation on the PEIR but who choose to consult with LCWA pursuant to AB 52 on future CEQA documents.

associated grave goods. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the landowner to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials. LCWA and the landowner shall discuss and confer with the MLD on all reasonable options regarding the MLD's preferences for treatment.

Until LCWA and the landowner have conferred with the MLD, the contractor shall ensure that the immediate vicinity where the discovery occurred is not disturbed by further activity and is adequately protected according to generally accepted cultural or archaeological standards or practices, and that further activities take into account the possibility of multiple burials.

If the NAHC is unable to identify an MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the facility property in a location not subject to further and future subsurface disturbance.

Sources

California Coastal Commission, 2018. Coastal Development Permit Application for the Los Cerritos Wetland Oil Consolidation and Restoration Project. On file at the California Coastal Commission, San Francisco

Cogstone, 2023, Cultural Resources Assessment for the Southern Los Cerritos Wetlands Restoration Project. (Appendix F).

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.4 Cultural Resources. Accessed 10/19/22

Martinez, D., and W. Teeter, 2015. 'Ho'eexok'e 'eyooku'ka'ro 'We're working with each other': The Pimu Catalina Island Project. Society for American Archaeology Record 15(1): 25-28.

McCawley, William, 1996. First Angelinos: the Gabrielino Indians of Los Angeles. Malki Museum Press/Ballena Press, Banning, California.

3.6 Energy

Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact. Construction of the proposed project would require the consumption of fuel energy. However, the project site is nearly flat and would require minimal use of grading equipment for project construction. Construction would be short-term and would not require substantial quantities of equipment. Therefore, project construction would not result in wasteful, inefficient, or unnecessary consumption of energy resources. In addition, construction vehicles are already required to comply with governmental measures and regulations to reduce fuel and energy consumption, and the project does not include any electrical infrastructure.

As the project is a restoration project, there would be no or minimal energy consumption during long-term operations.

b) Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than Significant Impact. The project would not conflict with or obstruct a state or local renewable energy/energy efficiency plan, as there is very minimal energy usage for construction, and no energy usage for daily operations. The City of Seal Beach’s General Plan includes energy conservation opportunities and techniques, aimed at reducing building energy use (City of Seal Beach, 2003). The project would install no habitable structures; therefore, these strategies would not apply to the project.

Avoidance, Minimization and/or Mitigation Measures

No significant impacts to Energy were identified and no mitigation measures are required.

Sources

City of Seal Beach, 2003, General Plan, Accessed 2/27/2023. Available at <https://www.sealbeachca.gov/Departments/Community-Development/Planning-Development/General-Plan>.

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.6 Greenhouse Gas Emissions and Energy. Accessed 10/10/2022.

3.7 Geology and Soils

Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial 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 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994 or most current edition), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The PEIR indicates the following about geology and soil resources which are relevant to this project site (LCWA, 2021):

- Located in the Peninsular geomorphic province that includes the Los Angeles Basin characterized by a series of mountain ranges separated by long valleys, formed from faults branching from the San Andreas Fault.
- Past research suggests that over the past 20,000 years, the Rio Hondo, San Gabriel, and Santa Ana Rivers have moved back and forth across the coastal flood plains in Los Angeles and Orange County, depositing geologically recent alluvial materials.

- The coastal portion of the floodplain is bound by a line of elongated folded low hills and faults. This portion of the basin is dominated by the northwest-trending Newport-Inglewood Structural Zone, which diagonally crosses the program area as the Newport-Inglewood Fault Zone.
- The topography of the program area is generally flat with elevations of less than 100 feet; however, geologic uplifts have occurred, which have interrupted the plain in different areas and resulted in prominent folds and hills.

a) Would the Project directly or indirectly cause potential substantial 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 42.**

Less than Significant Impact. The Alquist-Priolo and Newport-Inglewood Fault Zones cross the site over the eastern portion, and crosses the proposed perimeter berm and upland fill area. Figure 11 shows the fault zone and fault. Neither construction nor operation are anticipated to cause any substantial adverse impacts to fault rupture. See below for detail about soil composition at the project site. The project is essentially maintaining open space and creating additional sensitive habitat area that is not significantly disturbed by earthshaking and ground rupture. The exception to this condition is the perimeter berm erected to protect against flooding adjacent property during extremely high water. The proposed berm will be constructed to standards suitable to prevent and limit damage in the very unlikely event that the fault ruptures. It is common practice to inspect the earthen berms after smajor earthquake events. The other features such as 1st Street and the bridge-type structure will be installed using construction approaches required within seismic areas to protect their integrity during earthquakes. As no aspect of the proposed restoration project could lead to increased geological risks, no impacts would occur.

- ii. Strong seismic ground shaking?**

Less than Significant Impact. Due to the project being in an area with consistent seismic activity, there is a possibility of a large earthquake in the region (including during the construction or operation of the project). However, no substantial adverse effects from ground shaking are anticipated as any physical structures that will be created by this project will be installed to seismic engineering standards (e.g., over excavated foundations backfilled with compacted lifts, foundations extended to a sufficient depth to be embedded within competent material or spread footings on pre-compacted foundation soils) to prevent damage or instability during a seismic event. Inspection will occur post-event to identify any needed maintenance or repairs.

- iii. Seismic-related ground failure, including liquefaction?**

Less than Significant Impact. As previously mentioned, there is a possibility of a large earthquake during the construction or operation of the project. A soils report was conducted by Anchor QEA as part of the technical studies for the program area during the PEIR process. Moisture content ranged from 2.2% to 189.9%. Based on particle size analysis, percent fines ranged from 8.9% to 66.4%. In addition to particle size analysis on geotechnical borings, particle size analysis was conducted on chemical boring composite samples to support the environmental site assessment. Percent fines on the chemical boring composite samples ranged from 39.3% to 73.1%. Along with particle analysis, Atterberg limit tests were conducted on geotechnical samples. The plasticity index of those samples ranged from 9 to 51.

The lithology was observed using visual classification methods within the soil cores sampled through SPT split spoons as well as hand auger cuttings. Two borings were conducted to 26.5 feet, including LCW-17 and LCW-18. These two borings showed a dense silty sand to sandy silt layer in the upper 10 feet. Beneath this layer was a 10-foot-thick layer of fat clay between 10 and 20 feet bgs. Beneath this unit was a silty clayey sand layer that

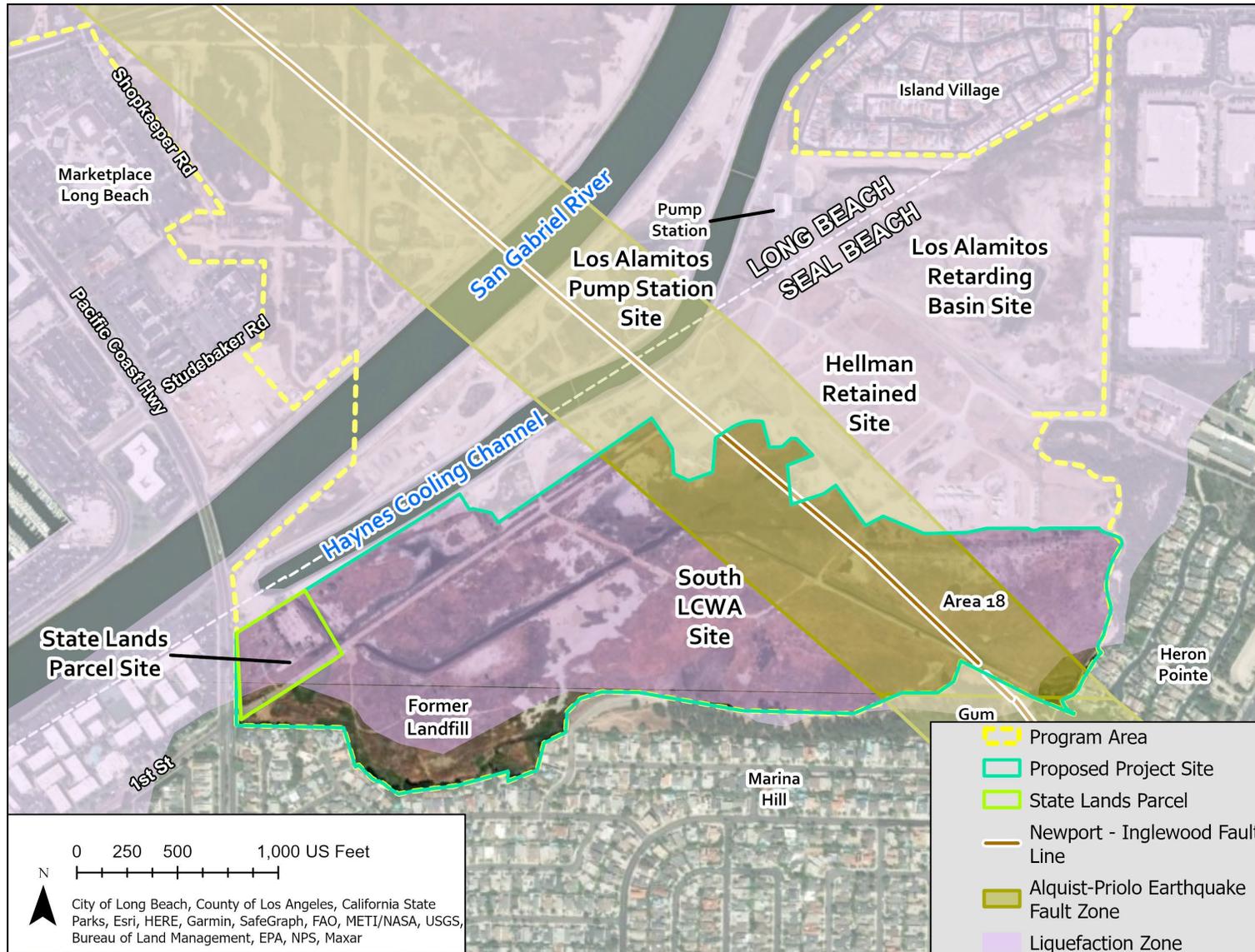


Figure 11: Alquist-Priolo Fault Zone and Fault Location

extended to the termination depth of the boring at 26.5 feet bgs. Borings LCW-05, LCW-09, and LCW-13 were drilled to a depth of 10.5 feet bgs. All three borings showed consistent sandy silt with clay material throughout. This layer was generally between soft and medium stiff, with an SPT N-value range of 4 to 25.

Hand augers (including both the chemical and geotechnical borings) were collected to a depth range of 1.3 to 12.6 feet bgs. The upper unit, observed to a depth range between 2.5 and 5.5 feet bgs, consisted of either sand or silty sand. In most cases, the middle layer consisted of a soft or very soft clay. The overall fines content of both layers varied from boring to boring.

The project site does have a liquefaction potential, but the project is not anticipated to cause any potential substantial adverse effects as any physical structures that will be created by this project will be installed to seismic engineering standards (e.g., over excavated foundations backfilled with compacted lifts, foundations extended to a sufficient depth to be embedded within competent material or spread footings on pre-compacted foundation soils) to prevent damage or instability during a seismic event. Inspection will occur post-event to identify any needed maintenance or repairs (Anchor QEA, 2022; Appendix G).

iv. Landslides?

Less than Significant Impact. There is no likely probability for landslides in the project site due to the fairly flat topography of the site. Per the California Department of Conservation Landslide Inventory, there are no mapped landslides within the project site.

b) Would the Project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. Topsoil will be kept onsite unless it is contaminated, and disposal is required for the health of the wetlands. Any topsoil that can be reused will be retained on the site and landscaped with native vegetation to improve its stability and prevent erosion. The project will be required to have a Stormwater Pollution Prevention Plan with Best Management Practices during construction to control any soil loss, this will be done in conjunction with the regulatory permitting through the Regional Water Quality Control Board.

Erosion and deposition are natural and necessary functions of a healthy wetland habitat and tidal connection. There will be some erosion during the operation of the project, but it should be minimal, and most should be captured on site by vegetation.

c) Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in, on or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant Impact with Mitigation. The wetlands restoration is located on ground susceptible to liquefaction (Figure 11). On the project site, there is an unstable subsurface soil condition that could liquify during a major earthquake event, and repair to both roadway and berm may be needed. However, based on conditions on-site since construction of all existing structures (roads, river and cooling channel levees), there has been no surface displacement of any impact by any earthquakes over the past 70 years. Hardscape associated with the project will be installed to seismic engineering standards (e.g., over excavated foundations backfilled with compacted lifts, foundations extended to a sufficient depth to be embedded within competent material or spread footings on pre-compacted foundation soils) to prevent damage or instability during a seismic event. Inspection will occur post-event to identify any needed maintenance or repairs.

d) Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks of life or property?

Less than Significant Impact. The project site is assumed to have fill and soil materials with low to moderate expansion potential (LCWA, 2021). The wetlands restoration has no buildings within the project description, which means there is little to no risk for the public visiting the project site. Should the soil used for the earthen berm for the restoration gradually expand, the berm and trail on the berm could be easily restored and repaired without risk to safety.

e) Would the Project 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?

No Impact. The project has no expectations to use any sort of septic tank or alternative wastewater disposal system. Any project features needing the infrastructure will connect with the City's sewer lines and wastewater disposal systems.

f) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact with Mitigation. There is a possibility that there will be fossil discoveries at lower depths when there is grading and excavation. The PEIR uses 5 feet below ground surface as the conservative estimate for a possible high potential of paleontological resources on the site. There should be no effects to paleontological resources during the operation of the project. The PEIR has multiple mitigation measures in place to ensure there are no effects to paleontological features that are found during the construction of the project. (LCWA, 2021)

Avoidance, Minimization and/or Mitigation Measures

Less than significant impacts to Geology and Soils were identified and no additional mitigation measures are required beyond those presented in the PEIR as follows:

Mitigation Measure GEO-1: Retention of a Qualified Professional Paleontologist. Prior to the start of construction of any near-term, mid-term, or long-term project, LCWA shall retain a Qualified Professional Paleontologist as defined by the Society of Vertebrate Paleontology to carry out all mitigation related to paleontological resources including: project-level review (**GEO-2**); paleontological resources sensitivity training (**GEO-3**); oversight of paleontological resources monitoring (**GEO-4**); and recovery, treatment, analysis, curation, and reporting (**GEO-5, GEO-6, and GEO-7**).

Mitigation Measure GEO-2: Project-Level Paleontological Resources Review and Monitoring Recommendations. Prior to LCWA approval of any near-term, mid-term, and long-term project, the Qualified Professional Paleontologist shall review the *Los Cerritos Wetlands Program Paleontological Resources Assessment* (ESA, 2019), grading plans, and any available geotechnical reports/data to determine the potential for ground disturbance to occur within older alluvium and old shallow marine deposits. If available data is sufficient to accurately determine the depth of older alluvium and old shallow marine deposits within a project site, monitoring shall be required beginning at or just above that depth. If available data is insufficient to determine the depth of older alluvium and old shallow marine deposits, monitoring shall be required beginning at 5 feet below surface (consistent with the accepted depth at which high sensitivity sediments could occur based on regional evidence). The results of the reviews shall be documented in technical memoranda to be submitted to LCWA prior to the start of ground disturbance, along with recommendations specifying the locations, depths, duration, and timing of any required monitoring. The technical memoranda shall include map figures that outline where monitoring is required and at what depths, and shall stipulate whether screen washing is necessary to recover small specimens. Any required screen washing shall follow SVP Guidelines.

Mitigation Measure GEO-3: Paleontological Resources Sensitivity Training. Prior to the start of ground disturbance for any near-term, mid-term, or long-term project, the Qualified Professional Paleontologist shall conduct paleontological resources sensitivity training. The training shall focus on the recognition of the types of paleontological resources that could be encountered within the program area, the procedures to be followed if they are found, confidentiality of discoveries, and safety precautions to be taken when working with paleontological monitors. LCWA shall ensure that construction personnel are made available for and attend the training, and retain documentation demonstrating attendance. The training should be repeated as necessary for incoming construction personnel.

Mitigation Measure GEO-4: Paleontological Resources Monitoring. A qualified paleontological monitor, as defined by the Society of Vertebrate Paleontology, shall monitor all ground-disturbing activities occurring in the older alluvium and old shallow marine deposits for each near term, mid-term, or long-term project.

Monitoring shall be implemented consistent with the locations, depths, duration, and timing recommendations specified in the technical memorandum for the project. Monitors shall work under the direction of the Qualified Professional Paleontologist. The number of monitors required to be on-site during ground-disturbing activities shall be determined by the Qualified Professional Paleontologist and shall be based on the construction scenario – specifically the number of pieces of equipment operating at the same time, the distance between these pieces of equipment, and the pace at which equipment is working – with the goal of monitors being able to effectively observe sediments as they are exposed. Monitors shall have the authority to temporarily halt or divert work away from exposed fossils in order to recover the fossil specimens, and to request assistance from construction equipment operators to recover samples for screen washing as necessary. Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The Qualified Professional Paleontologist, in consultation with LCWA, shall have the ability to modify (i.e., increase, reduce, or discontinue) monitoring requirements based on observations of soil types and frequency of discoveries. Requests for modifications shall be submitted in writing to LCWA for approval prior to implementation.

Mitigation Measure GEO-5: Paleontological Discoveries. If any potential fossils are discovered by paleontological resources monitors or construction personnel, all work shall cease at that location (within 100 feet) until the Qualified Professional Paleontologist has assessed the discovery and made recommendations as to the appropriate treatment. The paleontological resources monitor (if one is present) or construction personnel (if a monitor is not present) shall flag the fossiliferous area for avoidance until the Qualified Professional Paleontologist can evaluate the discovery and develop plans for avoidance or removal/salvage of the specimen(s), if deemed significant. Significant discoveries shall be salvaged following SVP Guidelines. LCWA shall consult with the State Lands Commission Staff Attorney regarding any paleontological resources discoveries on state lands.

Mitigation Measure GEO-6: Preparation, Identification, Cataloging, and Curation Requirements. All significant fossil discoveries shall be prepared to the point of identification to the lowest taxonomic level possible, cataloged, and curated into a certified repository with retrievable storage (such as a museum or university). All GPS data, field notes, photographs, locality forms, stratigraphic sections, and other data associated with the recovery of the specimens shall be deposited with the institution receiving the specimens. The Qualified Professional Paleontologist shall be responsible for obtaining a signed curation agreement from a certified repository in southern California prior to the start of the program. Given the length of the program, multiple agreements may be necessary due to changing capacities of repositories. The final disposition of paleontological resources recovered on state lands under the jurisdiction of the California State Lands Commission must be approved by the Commission.

Mitigation Measure GEO-7: Reporting Requirements. The Qualified Professional Paleontologist shall prepare weekly status reports detailing activities and locations observed (with maps) and summarizing any discoveries to be submitted to LCWA via email for each week in which monitoring activities occur. Monthly progress reports summarizing monitoring efforts shall be prepared and submitted to LCWA for the duration of monitored ground disturbance. Reports detailing the results of monitoring for any near-term, mid-term, or long-term project and treatment of significant discoveries shall be submitted to LCWA within 120 days of completion of treatment, or within 30 days of completion of monitoring if no significant discoveries occurred. If significant fossils are recovered, the Qualified Professional Paleontologist shall file the final report with the Natural History Museum of Los Angeles County and the certified repository.

Sources

Anchor QEA. 2022. Southern Los Cerritos Wetlands Restoration Project. Sampling and Analysis Report. (Appendix G).

California Department of Conservation, Landslide Inventory <https://maps.conservation.ca.gov/cgs/lsl/app/>, accessed 10/7/22.

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR Section 3.5 Geology, Soils, and Paleontological Resources, accessed 10/17/22.

3.8 Greenhouse Gas Emissions

Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. The PEIR Air Quality Study used California Emissions Estimator Model® (CalEEMod) to calculate criteria pollutant emissions as well as CO₂e emissions for both construction and operation, which can be used to determine if the program area would exceed SCAQMD standards for GHG emissions. Maximum unmitigated construction CO₂e emissions were found to be 9,929.36 lbs./day, or 1,813.31 tons/yr (Appendix C). Amortized over 30 years per SCAQMD, this is equivalent to 60.44 MT CO₂e. Maximum unmitigated operational emissions were found to be 10,126.86 lbs./day, or 1,849.37 tons/yr. By adding the amortized construction emissions to the operational emissions, a total of 3,662.68 MT/yr. would be created by the program area in its entirety, which is above the SCAQMD threshold of 3,000 MT/yr.

As discussed under Air Quality (Section 3.3), the footprint of the project site that is analyzed in this document is 20.5% of the total analyzed in the PEIR Air Quality Study. Therefore, the expected GHG emission for the proposed project would be 750.84 MT/yr., below SCAQMD’s threshold. Impacts would be less than significant.

b) Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. The project would not conflict with any applicable plan, policy, or regulation in regard to Greenhouse Gases. The City of Seal Beach General Plan, adopted in December 2003, does not contain a stand-alone air quality element or a Climate Action Plan. In addition, the nature of the project would lead to restoration of natural features that themselves play a role in Greenhouse Gas mitigation. Therefore, no conflicts with an applicable plans, policies, or regulations would occur.

Avoidance, Minimization and/or Mitigation Measures

Less than significant impacts to Greenhouse Gas Emissions were identified and no mitigation measures are required.

Sources

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.6 Greenhouse Gas Emissions and Energy. Accessed 10/10/2022.

Los Cerritos Wetlands Restoration Air Quality Technical Report, 536 pages (ESA, May 2020).

Moffatt & Nichol, 2023, Southern Los Cerritos Wetlands Restoration Project – Air Quality/Greenhouse Gas Study. (Appendix C).

3.9 Hazards and Hazardous Materials

Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a Project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact with Mitigation. The project does not propose routine transport, use, or disposal of hazardous materials. The wetland restoration project does not include use of hazardous materials. However, relict oil contamination exists on-site that will be removed as part of the restoration. Contaminated sumps will be removed (anticipated to go to municipal landfill) and testing of the final surface will occur to confirm no residual contamination remains after removal. Sumps to remain have been determined by testing and analysis to be within safe thresholds of Federal standards according to the project geologist (Anchor QEA, 2022 and 2023). There are no hazardous materials to be used during operations of the restored wetlands.

- b) Would the Project 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?**

Less than Significant Impact. See above text regarding removal of contaminated sumps and testing of the final surface to confirm no residual contamination.

- c) Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

No Impact. The project will not emit any emissions nor involve handling hazardous materials within one-quarter mile of an existing school as there are no schools within one-quarter mile of the project site.

- d) Would the Project 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 it create a significant hazard to the public or the environment?**

Less Than Significant Impact with Mitigation. There are multiple sumps onsite that will need to be removed during construction for restoration. These sumps are assumed to be artifacts with oil contamination from previous land uses. Contaminated sumps will be removed (anticipated to go to municipal landfill) and testing of the final surface will occur to confirm no residual contamination remains after removal. Sumps to remain have been determined by testing and analysis to be within safe thresholds of Federal standards according to the project geologist (Anchor QEA, 2022 and 2023). Any hazards to the construction crew will be mitigated with health and safety plans (HAZ-1) and all relevant environmental regulations. Operations should create no significant hazards to the public or environment, as the site contamination should have been removed during construction.

- e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?**

No Impact. There are no airports within two miles of the project site.

- f) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

No Impact. This project would not interfere with any emergency plans for either the City of Long Beach or the City of Seal Beach. There would be no construction material or storage on public roadways, and there will be no road closures associated with the project.

- g) Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.**

No Impact. The project site is not in or near a very high or high fire hazard severity zone.

Avoidance, Minimization and/or Mitigation Measures

Less than significant impacts to Hazards and Hazardous Materials were identified and no additional mitigation measures are required beyond those presented in the PEIR as follows:

Mitigation Measure HAZ-1: Health and Safety Plan. The contractor(s) shall prepare and implement site-specific Health and Safety Plans as required by and in accordance with 29 CFR 1910.120 to protect construction workers and the public during all excavation and grading activities. This Plan shall be submitted to LCWA, the Orange County Environmental Health Division (the CUPA for the City of Seal Beach area), or Long Beach/Signal Hill Joint Powers Authority (the CUPA for the Long Beach area), for review prior to commencement of construction. The Health and Safety Plans shall include, but are not limited to, the following elements:

- Designation of a trained, experienced site safety and health supervisor who has the responsibility and authority to develop and implement the site Health and Safety Plan;
- A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals;
- Specified personal protective equipment and decontamination procedures, if needed;
- Emergency procedures, including route to the nearest hospital; and
- Procedures to be followed in the event that evidence of potential soil or groundwater contamination (such as soil staining, noxious odors, debris or buried storage containers) is encountered. These procedures shall be in accordance with hazardous waste operations regulations and specifically include, but are not limited to, the following: immediately stopping work in the vicinity of the unknown hazardous materials release, notifying the LCWA, and the Orange County Environmental Health Division (the CUPA for the City of Seal Beach area), or the Long Beach/Signal Hill Joint Powers Authority (the CUPA for the Long Beach area), the LARWQCB, or CalGEM, as appropriate, and retaining a qualified environmental firm to perform sampling and remediation.

Mitigation Measure HAZ-2: Soil, Landfill Materials, and Groundwater Management Plan. In support of the Health and Safety Plan described in **Mitigation Measure HAZ-1**, the contractor(s) shall develop and implement a Soil, Landfilled Materials, and Groundwater Management Plan that includes a materials disposal plan specifying how the contractor will remove, handle, transport, and dispose of all excavated material in a safe, appropriate, and lawful manner. The Plan shall identify protocols for soil and landfilled materials testing and disposal, identify the approved disposal site, and include written documentation that the disposal site can accept the waste. Contract specifications shall mandate full compliance with all applicable local, state, and federal regulations related to the identification, transportation, and disposal of hazardous materials, including those encountered in excavated soil, landfilled materials, or dewatering effluent.

As part of the Soil, Landfill Materials, and Groundwater Management Plan, the contractor shall develop a groundwater dewatering control and disposal plan specifying how groundwater (dewatering effluent), if encountered, will be handled and disposed of in a safe, appropriate and lawful manner. The Plan shall identify the locations at which groundwater dewatering is likely to be required, the test methods to analyze groundwater for hazardous materials, the appropriate treatment and/or disposal methods, and approved disposal site(s), including written documentation that the disposal site can accept the waste. The contractor may also discharge the effluent under an approved permit to a publicly owned treatment works, in accordance with any requirements the treatment works may have.

This Plan shall be submitted to the LCWA, and the Orange County Environmental Health Division (the CUPA for the City of Seal Beach area) for review and approval prior to commencement of construction.

Sources

Anchor QEA, 2022, Southern Los Cerritos Wetlands Restoration Project. Sampling and Analysis Report.

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.7 Hazards and Hazardous Materials. Accessed 10/10/2022.

3.10 Hydrology and Water Quality

Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 surface, in a manner which would				
i) result in substantial erosion or siltation on or off-site;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) Would the project violate or conflict with any adopted water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant Impact with Mitigation. Construction activities would be required to comply with the requirements of SBMC Chapter 9.20 (the City’s Stormwater Management Program). SBMC Chapter 9.20 is enforced by City officials during the permit approval process. This chapter requires development projects to comply with the Orange County Drainage Area Management Plan (DAMP) and properly store waste material, to ensure the protection of water quality from stormwater runoff.

There is a possibility that sediment generated by construction will make its way to a body of water, but the project is subject to multiple permits (identified in Table 6) for ensuring that water quality will not be decreased during construction and Best Management Practices will be included that minimize adverse impacts to water quality. Water quality would be improved by reconnecting the marsh floodplain to the Haynes Cooling Channel

because the source of seawater is not impaired due to less stormwater contributions as compared to conditions within the San Gabriel River, particularly after storm flows. The local groundwater has already been impacted by historic land uses and is already brackish (a salt and freshwater mixture) water. Due to the non-potable brackish water, there are no groundwater wells in the project area.

b) Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. There is no interference with recharge due to the locations of the project within the tidal fringe. Construction will use some of the available public water supply, but not enough to interfere with the groundwater supplies or recharge. Operations will use no existing groundwater supplies, water for temporary irrigation will be from the City water line rather than an aquifer. The only impervious surface created for the project already exists on 1st Street and is being raised and not expanded.

c) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. result in substantial erosion or siltation on- or off-site;

Less Than Significant Impact with Mitigation. Best Management Practices as detailed in a SWPPP as described in regulatory permit conditions will be in place during construction to minimize the extent of any possible erosion or siltation. It is possible that there will be minor erosion or siltation during the operations of the project, but it will not be substantial due to the existence of typical low energy tidal hydraulics associated with relatively flat expansive wetted areas of the restored wetlands (Moffatt & Nichol, 2022; Appendix H).

ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

Less Than Significant Impact. The project would not increase the rate of surface runoff in a manner that floods on- or off-site because the wetland being created is a relatively level marsh plain that will not slope significantly in any direction. Tidal flooding of the wetlands will regularly occur from seawater sources, but this is a natural process being encouraged and increased and would not be due to surface runoff.

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;

No Impact. One bioswale will be constructed as part of Phase 2, and it will help to increase percolation and reduce surface water thus improving function as water quality treatment and stormwater collection. Runoff water in the project site would be expected to decrease following the restoration of wetlands and the absence of the construction of new impervious surfaces.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. The entire project site is within both a tsunami and flood zone. The restoration and removal of industrial hazards will decrease the risk of releasing pollutants should the project be inundated with water. The restoration will also provide protection from tsunami damage by absorbing energy over the expansive marsh plain and will provide flood protection measures in the form of earthen berms to protect the Hellman Retained Site from flooding. There is no risk of seiche waves at the project site. Figure 12 shows that the project site is not located within the 100-year floodplain, per the Flood Insurance Rate Map (FIRM) map.

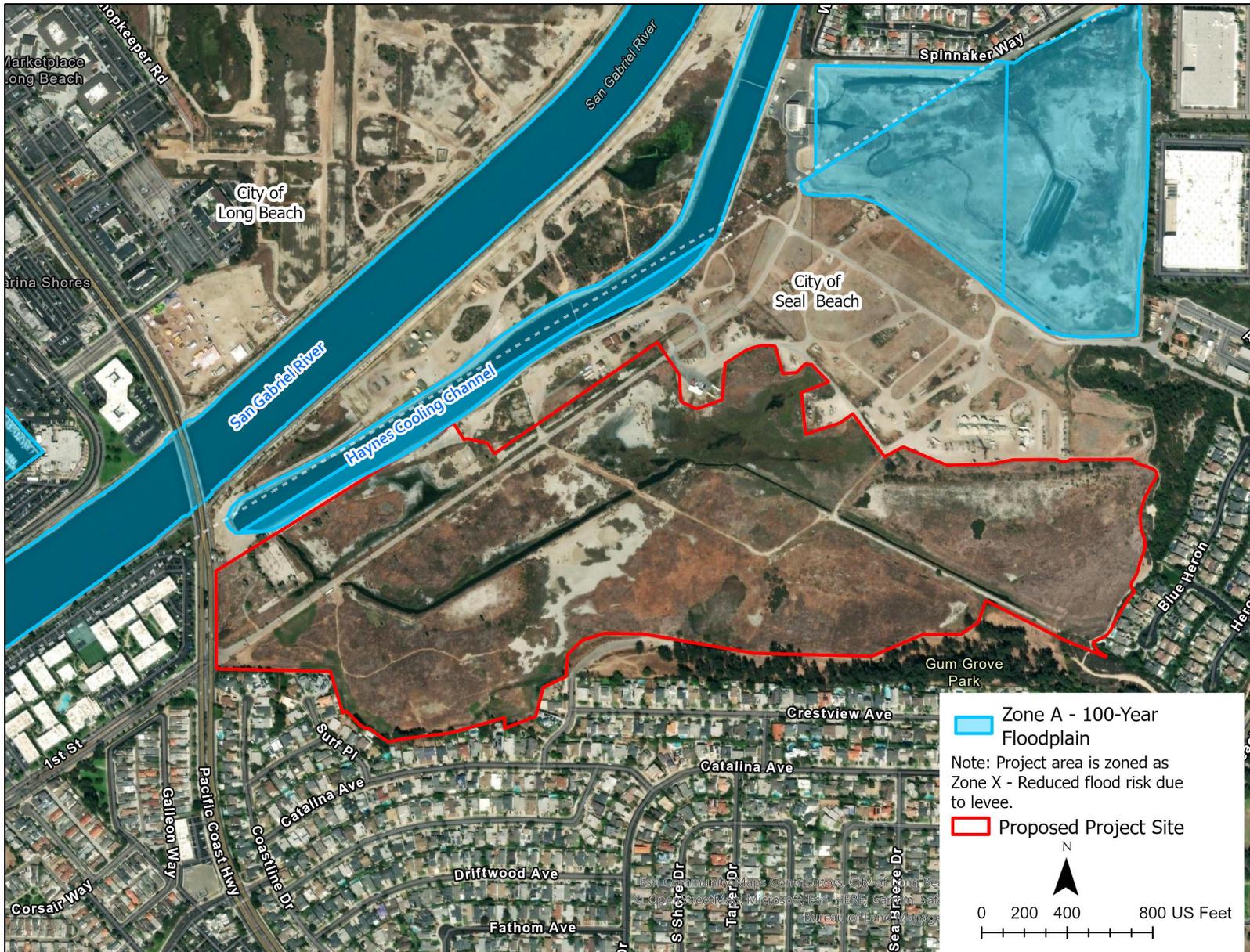


Figure 12: Los Cerritos Wetland Flood Insurance Rate Map (FIRM)

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact with Mitigation. The project would be a benefit to the local water quality control plan and identified beneficial uses, as the restored watershed would increase the water quality for any tidal flows that would flow in and out of the wetlands by natural absorption and uptake of pollutants by the wetland plants and soils.

The Water Quality Control Plan (2019 Update) for the Santa Ana River Basin includes the City of Seal Beach in the plan boundaries. This plan provides water quality objectives and Total Maximum Daily Loads (TMDL) for pollutants in the plan area. As described above, the proposed project would not increase the impervious surface area on the project site. Therefore, there would be no substantial change to precipitation and runoff infiltration and groundwater. The project would not generate increased demand for water.

Avoidance, Minimization and/or Mitigation Measures

Less than significant impacts to Hydrology and Water Quality were identified and no additional mitigation measures are required beyond those presented in the PEIR as follows:

Mitigation Measure HYD-1: A Monitoring and Adaptive Management Plan (MAMP) shall be prepared and implemented prior to commencement of construction or restoration activities. The MAMP shall provide a framework for monitoring site conditions in response to the program implementation. The monitoring shall focus on sediment quality in areas subject to the greatest deposition from storm events and that are also not subject to regular tidal flushing, (e.g., the southwestern corner of the Long Beach City Property site). The sediment quality monitoring shall be performed at a frequency that would capture the potential build-up of contaminants in the deposited sediment before concentration are reached that would impact benthic macro-invertebrates and other sensitive species. The findings of the monitoring efforts shall be used to identify any source of impairment, and if discovered, provide measures for remediation of the sediment source area(s). The MAMP shall be submitted for review and approval to permitting agencies prior to commencement of construction or restoration activities.

Sources

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.8 Hydrology and Water Quality. Accessed 10/17/2022.

Moffatt & Nichol, 2022, 65% Southern Los Cerritos Wetlands Restoration, Phases 1 and 2 Hydraulic and Hydrology Modeling. (Appendix H).

Santa Ana Regional Water Quality Control Board, 2019, Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), Accessed 2/27/2023. Available at https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/.

3.11 Land Use and Planning

Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

According to the Cities of Long Beach and Seal Beach General Plan Land Use Designation (Figure 13), the Project Area mostly has no land use designation or is identified as open space.

The properties within Seal Beach are zoned as Specific Plan Regulation, Open Space Natural, and Oil Extraction (Figure 14). The Hellman Ranch Specific Plan applies to the entire portion of the program area within the City of Seal Beach.

a) Would the Project physically divide an established community?

No Impact. The project will restore existing wetlands and construct new public access trails, and does not include new roads, railroads, or any other feature that is known to divide existing communities. Thus, it would not physically divide an established community.

b) Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The project is consistent with all applicable goals and policies of the applicable plans, policies, and regulations including the City of Seal Beach General Plan and the City’s Municipal Code.

Avoidance, Minimization and/or Mitigation Measures

No significant impacts to Land Use and Planning were identified and no mitigation measures are required.

Sources

City of Seal Beach, 2003, General Plan, Accessed 2/27/2023. Available at <https://www.sealbeachca.gov/Departments/Community-Development/Planning-Development/General-Plan>.

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.9 Land Use and Planning. Accessed 10/10/2022.



Figure 13: General Plan Land Use Designations



Figure 14: Zoning Boundaries

3.12 Mineral Resources

Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The project will not result in the loss of available known mineral resources of value to the region and State. All oil extraction from the surface by the previous landowner has ceased on-site and the project is restoring conditions to pre-extraction conditions for habitat restoration.

b) Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. The project will not result in the loss of availability of locally important mineral resources. The project is restoring habitat on-site.

Avoidance, Minimization and/or Mitigation Measures

No significant impacts to Mineral Resources were identified and no mitigation measures are required.

Sources

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.10 Mineral Resources. Accessed 10/17/2022.

3.13 Noise

Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive ground-borne vibration or ground-borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 airport, would the Project expose people residing or working in the Project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Would the Project result in the 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?

Less than Significant Impact with Mitigation. Construction noise is temporary and will not exceed the Noise Ordinance for Seal Beach. There are, however, noise reduction measures that can be utilized when close to sensitive receptors, such as neighborhoods within half a mile from the project site. Typical construction equipment noise levels are shown in Table 10. During operation, noise is negligible.

Table 10: Construction Equipment Noise Levels

Construction Equipment Type	Noise Levels (dBA) at 50 feet
Backhoes	73-92
Compactors	73-76
Compressors	75-86
Concrete Mixers	72-87
Concrete Pumps	81-83
Front Loaders	73-84
Generators	71-83
Pavers	85-87
Saws	71-82
Scrapers, Graders	78-92
Tractors	75-95
Trucks	81-94
Vibrators	68-82

Source: U.S. Department of Transportation (2020)

b) Would the Project result in generation of excessive ground-borne vibration or ground-borne noise levels?

Less than Significant Impact. There should be very low levels of ground-borne vibration or noise during construction due to the equipment that is being used for this project. Construction activities known to generate excessive ground-borne vibration would not be conducted by the project with the exception of approximately one day of piling at one location. In addition, the project would adhere to City noise standards.

Chapter 7.15 of the SBMC sets noise standards of 65 dBA at commercial properties at any time, 55 dBA at residential properties from 7:00 a.m. to 10:00 p.m., and 50 dBA at residential properties from 10:00 p.m. to 7:00 a.m. Section 7.15.025 of the SBMC exempts construction noise when performed between 7:00 a.m. and 8:00 p.m. on weekdays, and between 8:00 a.m. and 8:00 p.m. on Saturday.

There should be no ground-borne vibration or noise levels during operations of the project.

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 airport, would the Project expose people residing or working in the Project area to excessive noise levels?

No Impact. The project site is not located within two miles of a private or public airport, and would not expose visitors, employees, or construction workers to excessive aircraft noise levels.

Avoidance, Minimization and/or Mitigation Measures

No significant impacts to Noise were identified, and no additional mitigation measures or recommended reduction measures beyond those presented in the PEIR as follows (these measures may be modified via consultation with regulatory agencies):

Noise Reduction Measure NOISE-1: Staging Areas and Mufflers. Staging areas for construction shall be located away from existing off-site residences. All construction equipment shall use properly operating mufflers. These requirements shall be included in construction contracts.

Noise Reduction Measure NOISE-2: Limit Grading. All grading activities shall be conducted outside of the nesting season for sensitive bird species. The nesting season has been identified as extending from March 1 to August 15. (Refer to *Biological Resources*, for more information on potential impacts to bird species and the corresponding mitigation).

Noise Reduction Measure NOISE-3: Noise Barriers. Where feasible, grading plans and specifications shall include temporary noise barriers for all grading, hauling, and other heavy equipment operations that would occur within 300 feet of sensitive off-site receptors and occur for more than 20 working days. The noise barriers shall be 12-feet high, but may be shorter if the top of the barrier is at least one foot above the line of sight between the equipment and the receptors. The barriers shall be solid from the ground to the top of the barrier, and have a weight of at least 2.5 pounds per square foot, which is equivalent to $\frac{3}{4}$ inch thick plywood. The barrier design shall optimize the following requirements: (1) the barrier shall be located to maximize the interruption of line-of-sight between the equipment and the receptor, which is normally at the top-of-slope when the grading area and receptor are at different elevations. However, a top-of-slope location may not be feasible if the top-of-slope is not on the project site; (2) the length and height of the barrier shall be selected to block the line-of-sight between the grading area and the receptors; (3) the barrier shall be located as close as feasible to the receptor or as close as feasible to the grading area; a barrier is least effective when it is at the midpoint between noise source and receptor.

Sources

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.11 Noise. Accessed 10/17/2022.

3.14 Population and Housing

Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial upland population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The project is not proposing new homes or businesses, nor is it extending roads or other infrastructure. Most construction workers, wetland employees, and visitors to the completed project will come from local areas or the surrounding Los Angeles area, meaning that there will not be substantial population growth.

b) Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. There is no displacement of existing people or housing that will occur as a result of the project.

Avoidance, Minimization and/or Mitigation Measures

No significant impacts to Population and Housing were identified and no mitigation measures are required.

Sources

LCWA, 2019. Los Cerritos Wetlands Restoration Plan Initial Study, accessed 10/17/2022.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) 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 any of the following public services:				
Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) 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 government 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 following public services?

i. Fire protection

Less than Significant Impact with Mitigation. There will be a Fire Safety plan on site, and there should be no increase in population during construction. During operations, there would be more visitors to the site, but the wetlands restoration and subsequent increase in water at the site should reduce the possibility for a wildfire at the site.

ii. Police protection

No Impact. There is no anticipated need for additional police during project construction or operation, although there may be private security during any special events but that is not anticipated with any regularity.

iii. Schools

No Impact. The project site has no residential land uses that will bring population growth. There is no expectation that an increase in workers for the project will bring an increase in families to the area, as they will most likely already live in the area or will commute to the project site.

iv. Parks

No Impact. This project will not impact any parks in either Seal Beach or Long Beach.

v. Other public facilities

No Impact. There will be no substantial population growth that will put a strain on any other public facilities in either the City of Long Beach or the City of Seal Beach.

Avoidance, Minimization and/or Mitigation Measures

No significant impacts to Public Services were identified and no additional mitigation measures are required beyond those present in the PEIR as follows:

Mitigation Measure PS-1: Fire Prevention and Protection Training. Prior to the start of construction activities, the Applicant shall prepare and conduct a fire prevention and protection training for all construction personnel associated with the proposed program. Topics shall include general fire prevention practices such as avoiding smoking on the program area as well as specific preventative measures pertaining to high-fire-risk activities including handling of oil and welding and cutting. Personal protection measures including the locations of fire extinguishers on the program area and site exit routes should also be disclosed to ensure construction worker safety in the event of a fire. The material for the training shall be obtained in consultation with the Orange County Fire Authority and the Long Beach Fire Department.

Sources

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.12 Public Services. Accessed 10/17/2022.

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.13 Recreation. Accessed 10/17/2022.

3.16 Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The Project would create new natural environmental habitat area with passive recreational use opportunities for the area. This would result in a direct beneficial effect to passive recreation and would not result in increased use of existing parks or recreational facilities such that substantial deterioration of these resources would occur.

b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. Any recreational facilities (such as pedestrian trails and/or tribal cultural resource features) would be sited and constructed at least fifty (50) feet away from sensitive habitat areas with the least potential to disturb native habitats. Where the 50-foot buffer distance cannot be met, transitional habitat planting of spiny rush (*Junctus acutus*) will be considered for installation between the trail and the wetland to discourage unauthorized access.

Avoidance, Minimization and/or Mitigation Measures

No significant impacts to Recreation were identified and no mitigation measures are required.

Sources

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.13 Recreation. Accessed 10/10/2022.

3.17 Transportation

Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This project will be consistent with the PEIR, and the PEIR states the following:

“In summary, while construction of the proposed [project] would temporarily increase traffic volumes on the local and regional circulation systems, roadway operations would return to pre-construction levels once construction is complete. All construction trucks would utilize designated truck routes and comply with all applicable roadway regulations and guidance to minimize effects to roadway operations. In addition, implementation of Mitigation Measure TRA-1 would reduce potentially significant impacts related to roadway closures in the local circulation systems by requiring the preparation and implementation of a traffic control plan. Therefore, for these reasons, the proposed [project’s] effects on the local and regional circulation systems during construction would be less than significant.”

a) Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit roadway, bicycle and pedestrian facilities?

No Impact. The project is consistent with programs, plans, ordinances and policies addressing the circulation around the project site. A traffic control plan (**Mitigation Measures TRA-1**) will be used when necessary to minimize the effects from construction (e.g., night closure of a lane on a road, if needed) on adjacent roadways. Any oversized construction equipment that would be brought to or from the site that could affect travel lanes would be transported outside of morning and afternoon rush hours. During operation of the project, no effects on transportation are anticipated.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less than Significant Impact. This project as a whole is assumed to have minimal impacts (if any) to Vehicle Miles Traveled (VMT) on the surrounding area. There may be slightly more local trips for employees and visitors to the project site, but these should not affect the total VMT of the project. In addition, VMT would be reduced by bicycle and pedestrian features at the restored wetland including the additional of amenities such as bicycle parking, which will encourage bicycle use.

c) Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves of dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. See a) above for details.

d) Would the Project result in inadequate emergency access?

No Impact. The project should have no effect on emergency access during construction or operations.

Avoidance, Minimization and/or Mitigation Measures

No impacts to Transportation were identified and no additional mitigation measures are required beyond those presented in the PEIR as follows:

Mitigation Measure TRA-1: Prior to the start of construction of the program component(s) that require a full or partial roadway closure, LCWA shall require the construction contractor(s) to prepare a traffic control plan. The traffic control plan will show all signage, striping, delineated detours, flagging operations and any other devices that will be used during construction to guide motorists, bicyclists, and pedestrians safely through the construction area and allow for adequate access and circulation to the satisfaction of the cities of Seal Beach and Long Beach and Orange and Los Angeles Counties, as applicable. The traffic control plan shall be prepared in accordance with the applicable jurisdiction's traffic control guidelines and will be prepared to ensure that access will be maintained to individual properties, and that emergency access will not be restricted. Additionally, the traffic control plan will ensure that congestion and traffic delays are not substantially increased as a result of the construction activities. Furthermore, the traffic control plan will include detours or alternative routes for bicyclists using on-street bicycle lanes as well as for pedestrians using adjacent sidewalks. LCWA shall provide written notice at least two weeks prior to the start of construction to owners/occupants along streets to be affected during construction.

During construction, LCWA will maintain continuous vehicular and pedestrian access to any effected residential driveways from the public street to the private property line, except where necessary construction precludes such continuous access for reasonable periods of time. Access will be reestablished at the end of the workday. If a driveway needs to be closed or interfered with as described above, LCWA shall notify the owner or occupant of the closure of the driveway at least five working days prior to the closure. The traffic control plan shall include provisions to ensure that the construction of the proposed program does not interfere unnecessarily with the work of other agencies such as mail delivery, school buses, and municipal waste services.

LCWA shall also notify local emergency responders of any planned partial or full lane closures or blocked access to roadways or driveways required for program construction. Emergency responders include fire departments, police departments, and ambulances that have jurisdiction within the program area. Written notification and disclosure of lane closure location must be provided at least 30 days prior to the planned closure to allow emergency response providers adequate time to prepare for lane closures.

Sources

LCWA, 2020, Los Cerritos Wetlands Restoration Plan Draft Program EIR, Section 3.14 Transportation. Accessed 10/17/2022.

3.18 Tribal Cultural Resources

Would the Project cause a substantial adverse change in the significance of a Tribal Cultural Resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision © of Public Resource Code Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Would the Project cause a substantial adverse change in the significance of a Tribal Cultural Resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:

- a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or**

Less Than Significant Impact with Mitigation. No new significant resources were identified as part of the revised cultural resources study (Appendix F). Two previously identified archeological resources within or adjacent to the Project site were evaluated as eligible for the California Register of Historical Resources. A 50-foot buffer will be created around each of these significant resources to ensure that they are avoided by construction activities.

During construction, soil balancing will occur onsite. Mitigation measures from the Los Cerritos Wetlands Restoration Plan Final Program EIR (LCWA, 2021) are sufficient for mitigation for any resources that are found during construction or operations. In particular, continued tribal consultation will ensure that the *Puvungna* Traditional Cultural Landscape is protected from significant effects as the wetlands are restored and access to it and its resources by tribal members is enhanced.

- 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 of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision(c) of Public Resource Code Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.**

Less Than Significant Impact with Mitigation. See reasoning for 3.18 (a) above. Any resources that are found during construction or operations will be covered under the mitigation measures from the PEIR. One of the benefits of the proposed project is the restoration of natural habitat in part to minimize future impacts to unknown potential resources. Existing resources will be avoided as described in the mitigation measures identified in the PEIR and included herein.

Avoidance, Minimization and/or Mitigation Measures

Less than significant impacts to Tribal Cultural Resources were identified and no additional mitigation measures are required beyond those presented in the PEIR as follows:

Mitigation Measures BIO-1 through BIO-11 as provided in *Biological Resources*, and Mitigation Measures CUL-1, and CUL-4 through CUL-17, as provided in *Cultural Resources*. (Appendix A).

Sources

Cogstone, 2023, Cultural Resources Assessment for the Southern Los Cerritos Wetlands Restoration Project. (Appendix F).

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.15 Tribal Cultural Resources. Accessed 11/09/2022.

3.19 Utilities and Service Systems

Would the Project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact. To move it out of the floodplain, 1st Street will be raised onto a berm, and the associated utilities will be reconfigured to lie within the road embankment or remain overhead on poles, depending on the decisions of the utility owners. Construction will generate little wastewater, and it will not require a new or expanded treatment center. Restoring the wetlands will function as a water quality treatment measure for stormwater runoff. Natural gas will not be used for construction or operations of this project. There will be no effect on telecommunications during construction or operation because lines will be either protected in place or relocated by maintained for service.

b) Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than Significant Impact. During construction only a modest quantity of water will be used for cleaning equipment, dust suppression, and would have less than significant impacts to water supplies. It is expected that up to 5 water trucks per day may be needed to suppress dust. The operations of the restored wetlands will use potable water for temporary irrigation of newly planted vegetation until it becomes established. This time period of temporary irrigation may be up to three years maximum (pending input from regulatory agencies).

- c) **Would the Project 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?**

Less than Significant Impact. There should be a nominal increase in demand during construction, but not enough to create a new or expanded wastewater facility.

- d) **Would the Project 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?**

No Impact. The project will not generate waste that will impair the attainment of solid waste reduction goals.

- e) **Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

No Impact. The project will comply with federal, state, and local management and reduction statutes and regulations.

Avoidance, Minimization and/or Mitigation Measures

Less than significant impacts to Utilities and Service Systems were identified and no additional mitigation measures are required beyond those presented in the PEIR as follows [at the time of the PEIR a visitor center was proposed; however, this area is now planned to have a Stewardship Site (not a structural building, rather a site that offers stewardship opportunities)]:

Mitigation Measure TRA-1, as provided in Transportation.

Mitigation Measure UTL-1: Water Will Serve Letter. Prior to issuance of a certificate of occupancy of the visitor center, a will serve letter will be obtained to verify that the water mains surrounding the program boundary have the capacity to serve the visitor center.

Mitigation Measure UTL-2: Sewer Capacity Study. Prior to issuance of a certificate of occupancy of the visitor center, a sewer capacity study will be performed to verify that the sewer lines surrounding the program boundary have the capacity to serve the visitor center.

Sources

LCWA, 2021, Los Cerritos Wetlands Restoration Plan Final Program EIR, Section 3.16 Utilities and Service Systems. Accessed 10/17/2022.

3.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Would the project Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The project will not substantially impair an adopted emergency response or evacuation plan. There are no plans to affect the main roads around the project site that are likely to be used for in an emergency.

b) Due to slope, prevailing winds, and other factors, would the Project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The project will not exacerbate wildfire risks. The project site is not in a very high fire hazard severity zone and is in an urbanized area with flat terrain.

c) Would the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The project will not require any infrastructure that will exacerbate fire risk or that will result in environmental impacts.

d) Would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. This project will not expose people and structures to significant post-fire environmental issues.

Avoidance, Minimization and/or Mitigation Measures

No significant impacts to Wildfire were identified and no mitigation measures are required.

Sources

LCWA, 2019, Los Cerritos Wetlands Restoration Plan Initial Study. Accessed 10/17/2022.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively "considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact. The project is to restore currently degraded wetlands, which will increase habitat and communities, help increase various fish and wildlife populations, and should not eliminate important examples of California history or prehistory.

b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects)?

Less Than Significant Impact with Mitigation. The project will restore the Los Cerritos Wetlands and will have beneficial impacts to the flora and fauna. No adverse cumulative impacts are anticipated regarding past, current, or future projects.

c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact. This is a relatively small-scale restoration project with little impact on human beings, and any impacts would be temporary and occur during construction.

4 LIST OF PREPARERS

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