Draft Environmental Impact Report
for the
Rincon Phase 2 Decommissioning Project

State Clearinghouse No. 2022100043
CSLC EIR Number: 815

Lead Agency:
California State Lands Commission
100 Howe Avenue, Suite 100 South
Sacramento, California 95825

March 2024

MISSION STATEMENT

The California State Lands Commission provides the people of California with effective stewardship of the lands, waterways, and resources entrusted to its care based on the principles of equity, sustainability, and resiliency, through preservation, restoration, enhancement, responsible economic development, and the promotion of public access.

CEQA DOCUMENT WEBSITE

www.slc.ca.gov/ceqa/

Geographic Location (Center of Rincon Island)

Latitude: 34° 20’51.04” N
Longitude: 119° 26’43.30” W
NAD83 Datum

Cover Photo: Photo of Rincon Island and the Causeway
Looking Southwest from the Shoreline
(Photo courtesy of Padre Associates)

Document prepared in coordination with:

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ENGINEERS, GEOLOGISTS &
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LIST OF ABBREVIATIONS AND ACRONYMS

The following table contains the abbreviations and acronyms used in the text of this document.

UNITS OF MEASUREMENT

°F	degrees Fahrenheit
BOPD	barrels of oil per day
cfs	cubic feet per second
cm	centimeter
cy	cubic yard(s)
dB; dBA	decibel; decibels on the A-weighted scale
Hz	hertz
ft	foot/feet
ft^2	square foot/feet
L_{eq}	Equivalent Sound Level
msl	mean sea level
mg/kg	milligrams per kilogram
mPa	micro-Pascals
ppb	parts per billion
ppm	parts per million
$\mu g/m^3$	micrograms per cubic meter
V/C	volume to capacity ratio
yr	year

OTHER ABBREVIATIONS AND ACRONYMS

A	AADT	Average Annual Daily Trips
	AAWP	Asbestos Abatement Workplan
	AB	Assembly Bill
	ACM	Asbestos Containing Materials
	APN	Assessor's Parcel Number
	ARCO	Atlantic Richfield Company
	AQMP	Air Quality Management Plan
B	BACT	Best Available Control Technology
	BCC	USFWS Bird of Conservation Concern
	bgs	Below Ground Surface
	BLM	Bureau of Land Management
	BMP	Best Management Practices
C	CalARP	California Accidental Release Prevention Program
	CalGEM	California Geologic and Energy Management Division
	Caltrans	California Department of Transportation
	Cal/OSHA	California Division of Occupational Safety and Health
	CAL FIRE	California Department of Forestry and Fire Protection

	CAA	Clean Air Act
	CAC	Certified Asbestos Consultant
	CAP	Ventura County's Coastal Area Plan
	CARB	California Air Resources Board
	CCA	California Coastal Act
	CCC	California Coastal Commission
	CDFW	California Department of Fish and Wildlife
	CESA	California Endangered Species Act
	CEQA	California Environmental Quality Act
	CFCs	Chlorofluorocarbons
	CH_4	Methane
	CMU	Concrete Masonry Unit
	CNDDB	California Natural Diversity Database
	CNEL	Community Noise Equivalent Level
	CNPS	California Native Plant Society
	CO	Carbon Monoxide
	CO_2	Carbon Dioxide
	CO_2E	Carbon Dioxide Equivalent
	Commission	Refers to CSLC Decision-Making Body
	CRHR	California Register of Historical Resources
	CRMTP	Cultural Resources Management and Treatment Plan
	CSLC	California State Lands Commission
	CZO	Coastal Zoning Ordinance
D	DPM	Diesel Particulate Matter
	DPS	Distinct Population Segment
	DTSC	Department of Toxic Substances Control
E	EIR	Environmental Impact Report
	EFH	Essential Fish Habitat
	EMFAC	Emission Factor (model)
	ESA	Environmentally Sensitive Area
	ESL	Environmental Screening Level
F	FB	Fish Block
	FC	Federal Candidate
	FE	Federally Endangered
	FP	CDFW Fully Protected
	FESA	Federal Endangered Species Act
	FT	Federally Threatened
G	GHG	Greenhouse Gas

H	HAPC	Habitat Areas of Particular Concern
	HMBP	Hazardous Materials Business Plan
	H_2S	Hydrogen Sulfide
L	LARWQCB	Los Angeles Regional Water Quality Control Board
	LCP	Local Coastal Program
	LOS	Level of Service
M	MLPA	Marine Life Protection Act
	MMPA	Marine Mammal Protection Act
	MPA	Marine Protected Area(s)
	MHTL	Mean High Tide Line
N	NAHC	Native American Heritage Commission
	NEC	No-Exposure Certification
	NHPA	National Historic Preservation Act
	NMFS	National Marine Fisheries Service
	NO	Nitric Oxide
	NO_2	Nitrogen Dioxide
	NO_x	Oxides of Nitrogen
	NOAA	National Oceanic and Atmospheric Administration
	NPDES	National Pollutant Discharge Elimination System
	NRCS	Natural Resources Conservation Service
O	O_3	Ozone
	OEHHA	Office Of Environmental Health Hazard Assessment
	OES	Governor's Office of Emergency Services
	OPC	Onshore Pipeline Connections Project Site
	OPR	Office of Planning and Research
	OSCP	Oil Spill Contingency Plan
P	PM	Particulate Matter
	PM_{10}	Particulate Matter 10 Micrometers or less in diameter
	$PM_{2.5}$	Particulate Matter 2.5 Micrometers or less in diameter
	PPV	Peak Particle Velocity
R	RAP	Remedial Action Plan
	ROC	Reactive Organic Compounds
	ROG	Reactive Organic Gases
	LARWQCB	Regional Water Quality Control Board – Los Angeles Region
S	SFBRWQCB	San Francisco Bay Regional Water Quality Control Board

	SBC	Santa Barbara Channel
	SBCAPCD	Santa Barbara County Air Pollution Control District
	SCE	Southern California Edison
	SCC	State Coastal Conservancy
	SCP	Site Cleanup Program
	SF_6	Sulfur Hexafluoride
	SLR	Sea Level Rise
	SO_2	Sulfur Dioxide
	SPL	Sound Pressure Level
	SR	State Route
	SWPPP	Stormwater Pollution Prevention Plan
	SWRCB	State Water Resources Control Board
	SWRCB WQO	State Water Resources Control Board Water Quality Objectives
T	TAC	Toxic Air Contaminant
	TPH	Total Petroleum Hydrocarbons
U	UCSB	University of California Santa Barbara
	UPRR	Union Pacific Railroad
	USACE	U.S. Army Corps of Engineers
	USEPA	U.S. Environmental Protection Agency
	USFWS	U.S. Fish and Wildlife Service
	USGS	United States Geologic Survey
	UST	Underground Storage Tanks for Hazardous Materials
V	V/C	Volume to Capacity Ratio
	VCAPCD	Ventura County Air Pollution Control District
	VCEHD	Ventura County Environmental Health Division
	VC CUPA	Ventura County Environmental Health Division, Certified Unified Program Agency
	VMT	Vehicle Miles Traveled
W	WOTUS	Waters of the United States
	WQO	Water Quality Objectives

EXECUTIVE SUMMARY

BACKGROUND AND PROJECT LOCATION

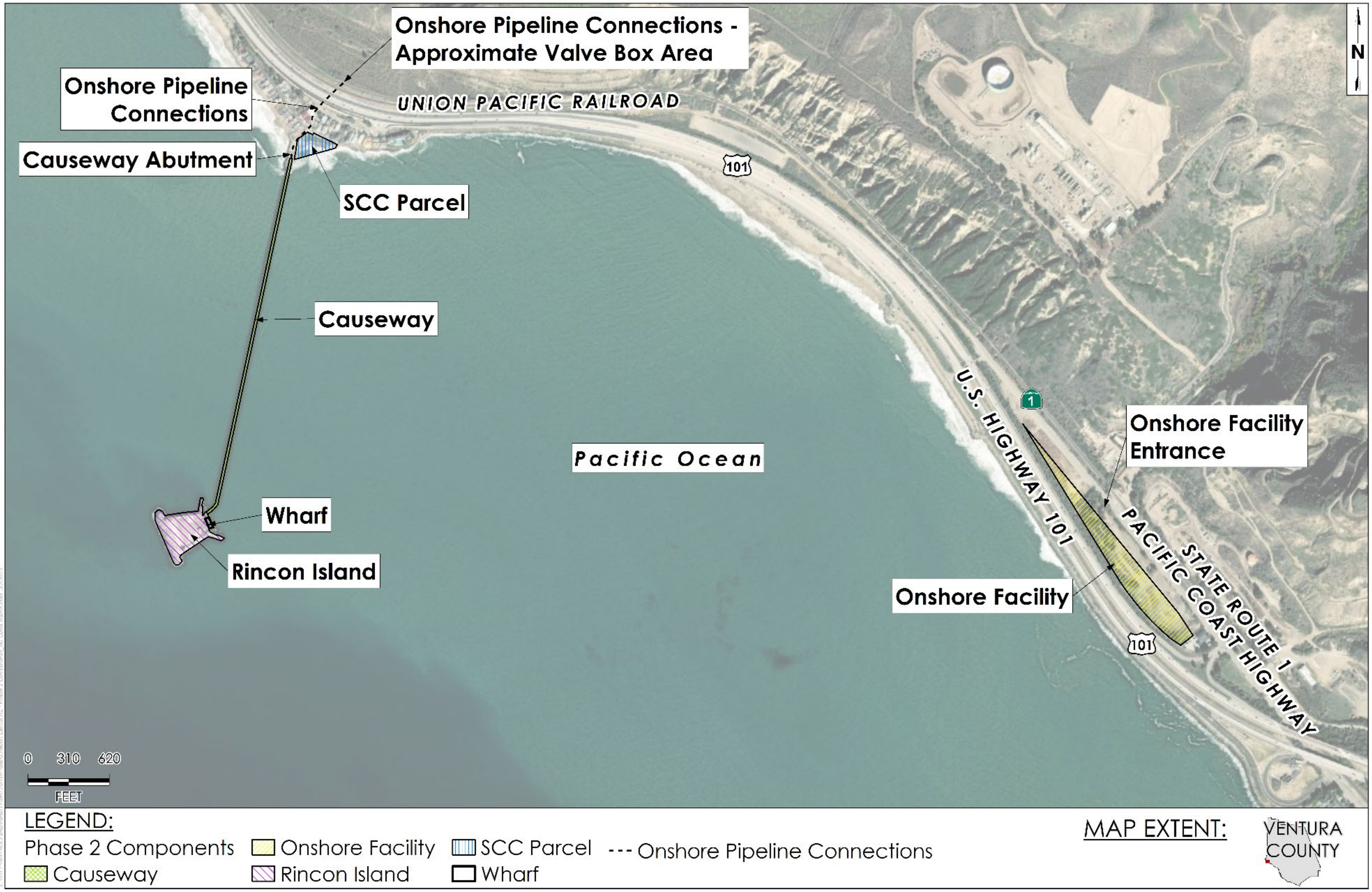
Rincon Island and the Onshore Facility (along with the adjacent privately owned Coast Ranch parcel) were constructed in 1959 and used for oil and gas production. The California State Lands Commission (CSLC or Commission) historically issued leases to oil production companies for this purpose. In December 2017, Rincon Island Limited Partnership, the most recent lessee of these lands, quitclaimed (transferred) its lease interests (including State Oil and Gas Lease Nos. PRC 145, PRC 410, and PRC 1466) to CSLC after becoming financially insolvent. Thereafter, the State of California (State) pursued decommissioning of the oil and gas related facilities and final disposition of Rincon Island. Phase 1 of this process included the plugging and abandonment of all oil and gas wells and removal of service equipment at Rincon Island, the Onshore Facility, and the adjacent privately owned Coast Ranch parcel. Phase 1 activities were completed in June 2021, and the facilities are currently in "caretaker" status, meaning they do not require a full-time operator for safety or pollution prevention.

The first part of the Rincon Phase 2 Decommissioning Project (Project) was the development of the Rincon Phase 2 Decommissioning Feasibility Study (Feasibility Study) that was completed in July 2022. The Feasibility Study provided information from technical studies and public input to inform CSLC staff's recommendations to the Commission for a proposed Project to be evaluated in compliance with the California Environmental Quality Act (CEQA) (Item 47, August 23, 2022).

Rincon Island is located approximately 3,000 feet offshore of Punta Gorda in Ventura County, approximately 7 miles northwest of the city of Ventura, California. The Island is immediately offshore of the community of Mussel Shoals, and approximately 0.5 mile south of the community of La Conchita (Figure ES-1). The Island is located in approximately 55 feet of water. A causeway, or access pier, connects the Island to the coast. A State Coastal Conservancy (SCC) Parcel, included in the decommissioning analysis, is located just east of the causeway landing (abutment) within Assessor's Parcel Number (APN) 060-0-090-425. The associated Onshore Facility, that consists of a 6.01-acre parcel owned by the State, is located 1.3 miles to the east of Rincon Island at 5750 W. Pacific Coast Highway (PCH), Ventura. Rincon Island and the Onshore Facility were previously connected by a pipeline system, until they were disconnected as part of the facility's oil and gas well plugging and abandonment process (Phase 1). Figure ES-2 provides an overview of the proposed Project sites.

Figure ES-1. Site Location Map

Figure ES-2. Project Sites Overview Map



PROJECT SUMMARY

The proposed Project analyzed within this Environmental Impact Report (EIR) would retain Rincon Island and the Rincon Island Causeway (causeway) in their current configuration. The proposed Project would consist of the following components:

Rincon Island Surface Facilities Removal and Remediation of Soils within the Island Core

- Island Surface Structure Removal
  - Option: Public Facilities Retention
- Island Well Bay Concrete Deck and Pavement Removal
- Contaminated Soil and Contaminated Interstitial Water Removal
- Transport of Materials to Offsite Disposal or Recycling Facility
- Backfill and Compaction with Clean Soil

Improvements on the State Coastal Conservancy (SCC) Parcel

Improvement of the SCC Parcel to enhance public access for recreational opportunities and installation of erosion reduction methods to prevent potential future loss of existing adjacent access roads (by one of the following options):

- Option 1: Native Revegetation and Access Improvements
  - Removal of Non-Native Vegetation
  - Restoration with Native Vegetation (approximately 0.33 acre)
  - Walkway/Pathway Improvements
  - Installation of Visitor Amenities, including Seating and Signage
  - Installation of Beach Access Stairway at Eastern End of Parcel
  - Removal of Exposed Coastal Hazards, including Remnant Pipe and Concrete/Rebar, as Appropriate Along the Shoreline
- Option 2: All Components of Option 1, Plus Installation of a Cobble Back Berm
- Option 3: All Components of Option 1, Plus Installation of Riprap Along Parcel Frontage

Decommissioning of Onshore Pipeline Connections (OPC) within the Project Site

- Cleaning and Flushing of the 6-inch-diameter Oil and Gas Pipelines
- Filling the Pipelines with Cement Slurry from the Causeway Abutment to the Southern End of the Casing
- Removing Pipelines from the 30-inch-diameter Casing North to the Concrete Vault
- Filling the 30-inch-diameter Casing with Cement Slurry

- Transport of Materials to Offsite Disposal or Recycling Facility

Decommissioning of the Onshore Facility

- Remediation of Petroleum Hydrocarbon-contaminated Soil and Groundwater (by one of the following options):
  - Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation
  - Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation
  - Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation
  - Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation
  - Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation
- Transport of Contaminated Materials to Offsite Disposal or Recycling Facility (as applicable)
- Surface Grade Backfilled with Clean Imported Soil (as applicable)
- Final Site Restoration and Revegetation (as applicable)

PROJECT PURPOSE AND NEED

The Project purpose is to remediate and decommission the subject facilities in accordance with existing federal, state, and local laws and regulations. The proposed Project activities would be completed during Phase 3 (the timing of which is dependent on future funding) to prepare Rincon Island and the Onshore Facility to be leased for new uses, including but not limited to co-management with sovereign tribal nations, consistent with the Public Trust. The Project does not include proposals for future use, which is an unresolved issue at this time. Such future uses would be subject to additional review under CEQA.

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

This EIR identifies potential significant impacts of the Project on the following environmental issue areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Cultural Resources – Tribal
- Geology and Coastal Processes
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality

- Land Use and Planning
- Noise
- Recreation
- Transportation and Traffic
- Utilities and Service Systems
- Wildfire

Impacts within each affected environmental issue area are analyzed in relation to pertinent significance criteria. Impacts are classified as one of five categories:

- **Significant and Unavoidable:** A substantial or potentially substantial adverse change from the environmental baseline that meets or exceeds significance criteria, where either no feasible mitigation can be implemented, or the impact remains significant after implementation of mitigation measures.
- **Less than Significant with Mitigation:** A substantial or potentially substantial adverse change from the environmental baseline that can be avoided or reduced to below applicable significance criteria.
- **Less than Significant:** An adverse impact that does not meet or exceed the significance criteria of a particular resource area and, therefore, does not require mitigation.
- **Beneficial:** An impact that would result in an improvement to the physical environment relative to baseline conditions.
- **No Impact:** A change associated with the Project that would not result in an impact to the physical environment relative to baseline conditions.

Potential significant environmental impacts anticipated during the proposed Project implementation are discussed in Section 4.0, Environmental Impact Analysis. With the implementation of mitigation measures (MMs) identified in this EIR (see Table ES-1 at the end of this Executive Summary and Appendix K, Mitigation Monitoring Program [MMP]), the proposed Project would avoid significant impacts. CSLC staff or CSLC-contracted monitors would monitor Project implementation in accordance with the MMP.

SUMMARY OF ALTERNATIVES TO THE PROPOSED PROJECT

CEQA requires identification and evaluation in an EIR of a reasonable range of alternatives to a proposed project plus a “no project” alternative to allow decision makers to compare the impacts of approving a project with the impacts of not approving a project. Pursuant to State CEQA Guidelines[1] section 15126.6, subdivision (a), an EIR need only consider a range of feasible alternatives that would foster informed decision making and public participation; therefore, while an EIR need not consider every conceivable alternative, an EIR must include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed Project. The range of potential alternatives that must be and are considered in this EIR is limited to those that would feasibly attain most of the Project objectives while avoiding or substantially reducing any of the significant effects of the Project. Alternatives that were considered but rejected are identified and accompanied by brief, fact-based explanations of the reasons for rejection. Among the factors that were used to eliminate alternatives from detailed consideration, as permitted by CEQA, are: (1) a failure to meet most of the proposed Project objectives; (2) infeasibility; or (3) inability to avoid significant impacts (State CEQA Guidelines, § 15126.6(c)).

The Rincon Phase 2 Decommissioning Feasibility Study (https://slc.ca.gov/oil-and-gas/rincon-phase-2-decommissioning-feasibility-study/), completed in July 2022, evaluated three Project scenarios (referred to in the Study as "Reefing," "Reuse," and "Removal" Alternatives) that included a number of Project components. As summarized in the Study findings, it was concluded that the Feasibility Study Reuse Alternative required the least number of tasks and would result in fewer temporary impacts associated with construction activities as compared to the other Alternatives. Based on this analysis, the Feasibility Study Reuse Alternative was chosen by the Commission (Item 47, August 23, 2022) to be further refined into the proposed Project being evaluated in this EIR. Because the Project was selected as a result of the Feasibility Study findings, which already included an alternatives analysis, there are no further reasonable alternatives that are available for consideration that would accomplish the basic objectives of the Project and avoid or substantially lessen any significant effects.

However, several different alternatives have been included in this analysis in order to present a full range of scenarios based on public and agency input received throughout the Feasibility Study and EIR scoping process. In some cases, these alternatives are included despite the potential for increased environmental impacts in order to provide the Commission, other responsible

[1] The State CEQA Guidelines are found at California Code of Regulations, title 14, section 15000 et seq.

agencies, tribal nations, and the public with a thorough understanding of the tradeoffs of other alternatives that could be considered. Alternatives carried forward for analysis in this EIR are summarized below and in Table ES-2.

Reefing Alternative

The remaining structures and pavement on Rincon Island and the contaminated soil, including any remaining contamination in the well bay area, would be removed and replaced with clean fill (based on the results of the soil assessment activities, the depth of contaminated soil stops just below the depth of interstitial water in isolated areas) to an elevation and condition consistent with use of the remaining island structure as habitat for wildlife species. The well bay conductors, surrounding perimeter rock and tetrapods, as well as the submerged Island, would be left intact. Under the Reefing Alternative, the causeway, wharf, and abutment would be removed in their entirety with pilings removed to 5 feet below the seafloor. These facilities would be removed to return the offshore area to a more natural state. The riprap revetment that protects the abutment would be temporarily removed to allow abutment removal and would then be replaced in its original configuration. The Onshore Facility would be remediated and left in a condition acceptable for future Public Trust-consistent use, the SCC Parcel would be improved, and the OPC would be disconnected.

Abutment and Revetment Retention Alternative

The remaining structures and pavement on Rincon Island and the contaminated soil, including any remaining contamination in the well bay area, would be removed and replaced with clean fill (based on the results of the soil assessment activities, the depth of contaminated soil stops just below the depth of interstitial water in isolated areas). The well bay conductors, surrounding perimeter rock and tetrapods, as well as the submerged Island, would be left intact. The Island wharf and the abutment and riprap revetment at the landward end of the causeway would remain untouched, but the causeway would be completely removed, along with associated pilings to 5 feet below the seafloor. The causeway would be removed to return the offshore area to a more natural state, but the wharf on Rincon Island would be left intact for potential future boating access. The Onshore Facility would be remediated and left in a condition acceptable for future Public Trust-consistent use, the SCC Parcel would be improved, and the OPC would be disconnected.

Partial Causeway Removal Alternative

The remaining structures and pavement on Rincon Island and the contaminated soil, including any remaining contamination in the well bay area, would be removed and replaced with clean fill (based on the results of the soil assessment activities, the depth of contaminated soil stops just below the depth of interstitial water in isolated areas). The well bay conductors, surrounding perimeter rock and tetrapods, as well as the submerged Island, would be left intact. The Island wharf, abutment, and riprap revetment would also remain untouched, but a portion of the causeway would be removed, along with associated pilings to 5 feet below the seafloor. The remaining causeway would be reconfigured to provide a stable and safe "pier" structure extending from shore, but no longer connected to the island. Removal of a portion of the causeway would return the offshore area to a more natural state and also create a recreational facility for public use. The Onshore Facility would be remediated and left in a condition acceptable for future Public Trust-consistent use, the SCC Parcel would be improved, and the OPC would be disconnected.

Offshore Disposal Alternative (Rincon Island)

The remaining structures and pavement on Rincon Island and the contaminated soil, including any remaining contamination in the well bay area, would be removed and replaced with clean fill (based on the results of the soil assessment activities, the depth of contaminated soil stops just below the depth of interstitial water in isolated areas). The well bay conductors, surrounding perimeter rock and tetrapods, as well as the submerged Island, would be left intact. The Island wharf, abutment, and riprap revetment would also remain untouched. The existing causeway would be left intact. Instead of bringing waste material from the Island to shore via the causeway in trucks, the Offshore Disposal Alternative would provide for waste material generated from decommissioning activities at Rincon Island to be transported by offshore vessel for disposal or recycling at an onshore facility after it is unloaded at Port Hueneme to provide a significant reduction in traffic through the Mussel Shoals community. Additionally, the Onshore Facility would be remediated and left in a condition acceptable for future Public Trust-consistent use, the SCC Parcel would be improved, and the OPC would be disconnected.

ALTERNATIVES NOT CONSIDERED FOR FULL EVALUATION

Two alternatives that were evaluated in the Feasibility Study were not considered for full evaluation. The Full Removal of Rincon Island Alternative was considered infeasible, had no environmental benefits over the proposed Project, and was eliminated from further consideration. The Rincon Island Surface Structure Removal and Foundation Replacement Alternative (identified as Component Plan 2A in the Feasibility Study) would significantly lessen impacts related to waste transport and disposal but would not meet the Project objective of remediating contamination on Rincon Island and was also eliminated from further consideration. The alternatives considered, but rejected, are listed below (see Section 5.3, Alternative Eliminated from Further Consideration, for further details).

- Full Removal of Rincon Island
- Rincon Island Surface Structure Removal and Foundation Replacement

ENVIRONMENTALLY SUPERIOR ALTERNATIVE DISCUSSION

Five alternatives were analyzed in detail in this EIR: the No Project Alternative, the Reefing Alternative, the Partial Causeway Removal Alternative, the Abutment and Revetment Retention Alternative, and the Offshore Disposal Alternative. Table ES-2 compares the environmental impacts associated with implementation of the proposed Project with the other alternatives. As discussed in Section 5.4.1, the No Project Alternative would not result in any new direct impacts to the environment. However, the remaining remediation activities on Rincon Island and the Onshore Facility would not be completed, therefore contamination would remain, and a primary Project objective would not be fulfilled. Because of ongoing environmental impacts due to soil and groundwater contamination if the decommissioning Project is not implemented, the No Project Alternative is not considered the environmentally superior alternative.

The State CEQA Guidelines section 15126.6, subdivision (e)(2) states, in part, that an EIR shall identify an environmentally superior alternative among the other alternatives if the "environmentally superior alternative is the 'no project' alternative." Because the No Project Alternative is not considered the environmentally superior alternative, the State CEQA Guidelines do not require identification of an environmentally superior alternative among the remaining alternatives.

KNOWN AREAS OF CONTROVERSY OR UNRESOLVED ISSUES

Pursuant to State CEQA Guidelines section 15123, the EIR shall identify "areas of controversy known to the lead agency including issues raised by agencies and the public." The proposed Project was selected based on preliminary analysis in the Feasibility Study and information received from the public and resource agencies during their review of the Feasibility Study. One area identified as being potentially controversial during the Feasibility Study review process was the potential to disrupt existing recreational opportunities (surfing) present within the offshore Project site. Additionally, as acknowledged within the Feasibility Study and public comment, removal of the causeway would result in permanent impacts to biological resources. This conclusion was based on historically published studies, as recent surveys had not been conducted at that time. In response to these concerns, additional studies and analysis have been included within the EIR to address coastal processes, baseline surfing conditions, and biological resources associated with the causeway structure.

Another controversial issue surrounds the remediation of the Onshore Facility. As previously mentioned, the Onshore Facility parcel is located adjacent to the privately owned Coast Ranch parcel. These two parcels were both leased to the same oil companies to facilitate oil and gas production from State lands. The abandonment of the wells and oil facilities on the two parcels occurred during Phase 1. Although not considered a component of Phase 2 because it is privately owned, the Coast Ranch parcel (due to the configuration of the former oil and gas facility) has been determined to be the major source of contamination to the Onshore Facility parcel. The Coast Ranch parcel is adjacent to and upgradient from the Onshore Facility, and there is no physical barrier or separation between the two parcels – the parcels are contiguous, with interacting soils and groundwater. Therefore, the remediation plan for the Onshore Facility would need to consider what remediation activities are planned on the adjacent Coast Ranch parcel.

Finally, both the SCC and California Coastal Commission (CCC) noted in comments submitted during the Feasibility Study review and through participation in the Joint Review Panel (JRP) for preparation of the draft EIR that they encourage a return of the coastline to its natural state and reduction of the amount of added "hardscape" (such as cobble and riprap) along the coast, which may affect natural shoreline processes regarding sand movement downcoast. Because one of the draft EIR objectives is to provide the Commission with a full range of Project options to consider for protection of Public Trust resources and uses (including preservation of existing public access at the SCC Parcel and of roadways that provide access to Public Trust resources, such as the causeway to Rincon Island), and because the SCC and CCC have not issued any approvals or taken any actions on the final disposition of the SCC Parcel, SCC Parcel Options 2 and 3, which include the use of hardscape, are retained in this document. Such inclusion allows for full consideration, comparison, and disclosure of options for preserving and improving the SCC Parcel and access from adjacent roads.

ORGANIZATION OF THE EIR

The EIR is presented in eight sections:

- **Section 1.0 – Introduction** provides background on the Project, previous related environmental review, and the CEQA process.
- **Section 2.0 – Project Description** describes the Project, its location, construction activities, monitoring, and schedule.
- **Section 3.0 – Cumulative Projects** identifies the projects that are analyzed for potential cumulative effects and the EIR's approach to cumulative impact analysis.
- **Section 4.0 – Environmental Impact Analysis** describes existing environmental conditions, impacts of the Project (including options considered), and mitigation measures, and evaluates cumulative impacts.
- **Section 5.0 – Project Alternatives Analysis** describes the alternatives screening methodology, alternatives screened from full evaluation, and alternatives carried forward for analysis, and analyzes impacts of each alternative carried forward.
- **Section 6.0 – Other Required CEQA Sections** addresses other required CEQA elements, including significant and irreversible environmental and growth-inducing impacts, comparison of the Project and alternatives, and a discussion of whether there is an environmentally superior alternative.
- **Section 7.0 – Other Commission Considerations** presents information relevant to the Commission's consideration of the Project that is in addition to the environmental review required pursuant to CEQA. These considerations include: (1) climate change and sea level rise (SLR); (2) commercial fishing (socioeconomics); (3) environmental justice; and (4) long-term maintenance costs and funding associated with the selected Project. Other considerations may also be addressed in the staff report presented at the time of the Commission's consideration of the proposed Project and alternatives.
- **Section 8.0 – Report Preparation Sources and References** lists the persons involved in preparation of the EIR and the reference materials used.

The EIR also contains the following Appendices:

- **Appendix A** – Public Scoping Documents
- **Appendix B** – Federal and State Regulations
- **Appendix C** – Project Distribution List
- **Appendix D** – Biological Studies
    - **Appendix D1 -** UCSB Characterization of Marine Habitat
    - **Appendix D2** – Rincon Island Causeway Marine Biological Survey Report (Padre)
    - **Appendix D3** – Roosting Bird Survey Report (Padre)
    - **Appendix D4** – Terrestrial and Marine Special Status Species Table
    - **Appendix D5** – Plant List
- **Appendix E** – Assessment Reports
    - **Appendix E1** – Rincon Island Assessment Report (Padre)
    - **Appendix E2** – Onshore Facility Assessment Report (Padre)
- **Appendix F** – Phase 1 Archaeological Report (Padre)
- **Appendix G** – Coastal Processes Studies (Griggs)
    - **Appendix G1 -** Potential Causeway Alternative Decommissioning Impacts
    - **Appendix G2** – Evaluation of Effects and Effectiveness of Three Different Treatments of SCC Parcel at Punta Gorda
- **Appendix H –** Surf Study (Coastal Frontiers)
- **Appendix I -** Air Quality and GHG Calculations
- **Appendix J –** Noise and Vibration Calculations
- **Appendix K –** Mitigation Monitoring Program

Table ES-1. Summary of Impacts: Proposed Project

Impact	Impact Class Notes: B = Beneficial; LTS = Less than Significant; LTSM = Less than Significant with Mitigation; NI = No Impact, SU = Significant and Unavoidable Impact										
	Rincon Island	**Rincon Island -** Public Facilities Retention	**SCC Parcel** Option 1	**SCC Parcel** Option 2	**SCC Parcel** Option 3	**Onshore Pipeline Connections**	**Onshore Facility** Option1	**Onshore Facility** Option 2	**Onshore Facility** Option 3	**Onshore Facility** Option 4	**Onshore Facility** Option5
Section 4.1, Aesthetics											
Impact AES-1: Temporary Effects on Public Views from Decommissioning Activities	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM
Impact AES-2: Long-term Changes to Aesthetics as a Result of the Proposed Project	NI	NI	LTS/B	LTS/B	LTS/B	NI	LTS	LTS	LTS	LTS	LTS
Impact AES-3: Potential for Cumulative Aesthetic Impacts to Public Views	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM
Section 4.2, Air Quality											
Impact AQ-1: Decommissioning-related Air Pollutant Emissions	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Impact AQ-2: Cumulative Air Quality Impacts	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Section 4.3, Biological Resources											
Impact BIO-1: Temporary Disturbance to Foraging, Roosting, and Nesting Birds, including California Brown Pelican, Osprey, and Double-Crested Cormorant	LTS	LTS	LTS	LTS	LTS	NI	LTSM	LTSM	LTSM	LTSM	LTSM
Impact BIO-2: Temporary Effects to ESHA	NI	NI	LTS	LTS	LTS	NI	LTS	LTS	LTS	LTS	LTS

Impact	Impact Class Notes: B = Beneficial; LTS = Less than Significant; LTSM = Less than Significant with Mitigation; NI = No Impact, SU = Significant and Unavoidable Impact										
	Rincon Island	**Rincon Island -** Public Facilities Retention	**SCC Parcel** Option 1	**SCC Parcel** Option 2	**SCC Parcel** Option 3	**Onshore Pipeline Connections**	**Onshore Facility** Option1	**Onshore Facility** Option 2	**Onshore Facility** Option 3	**Onshore Facility** Option 4	**Onshore Facility** Option5
Impact BIO-3: Temporary Impacts to Monarch Butterflies at the Onshore Facility	NI	NI	NI	NI	NI	NI	LTSM	LTSM	LTSM	LTSM	LTSM
Impact BIO-4: Temporary Impacts to Western Snowy Plover at the SCC Parcel	NI	NI	LTSM	LTSM	LTSM	NI	NI	NI	NI	NI	NI
Impact BIO-5: Temporary Impacts to Marine Mammals	LTS	LTS	LTS	LTS	LTS	NI	NI	NI	NI	NI	NI
Impact BIO-6: Cumulative Impacts to Biological Resources	LTS	LTS	LTSM	LTSM	LTSM	NI	LTSM	LTSM	LTSM	LTSM	LTSM
Section 4.4, Cultural and Historic Resources											
Impact CR-1: Potential Impacts to the Significance of a Historical Resource During Project Implementation	LTS	LTS	NI	NI	NI	NI	NI	NI	NI	NI	NI
Impact CR-2: Substantial Adverse Change to Previously Undiscovered Cultural Resources During Project Implementation	LTS	LTS	LTSM	LTSM	LTSM	LTSM	LTS	LTSM	LTSM	LTSM	LTSM
Impact CR-3: Cumulative Impacts to Cultural Resources	LTS	LTS	LTSM	LTSM	LTSM	LTSM	LTS	LTSM	LTSM	LTSM	LTSM
Section 4.5, Cultural Resources - Tribal											
Impact TCR-1: Substantial Adverse Change to	LTS	LTS	LTSM	LTSM	LTSM	LTSM	LTS	LTSM	LTSM	LTSM	LTSM

Impact	Impact Class Notes: B = Beneficial; LTS = Less than Significant; LTSM = Less than Significant with Mitigation; NI = No Impact, SU = Significant and Unavoidable Impact										
	Rincon Island	**Rincon Island -** Public Facilities Retention	**SCC Parcel** Option 1	**SCC Parcel** Option 2	**SCC Parcel** Option 3	**Onshore Pipeline Connections**	**Onshore Facility** Option1	**Onshore Facility** Option 2	**Onshore Facility** Option 3	**Onshore Facility** Option 4	**Onshore Facility** Option5
Previously Undiscovered Tribal Cultural Resources During Project Implementation											
Impact TCR-2: Cumulative Impacts to Tribal Cultural Resources	LTS	LTS	LTSM	LTSM	LTSM	LTSM	LTS	LTSM	LTSM	LTSM	LTSM
Section 4.6, Geology and Coastal Processes											
Impact GEO-1: Temporary Increase in Surface Erosion During Decommissioning and Soil Remediation Activities	LTSM	LTSM	LTSM	LTSM	LTSM	NI	LTS	LTSM	LTSM	LTSM	LTSM
Impact GEO-2: Paleontological Resources	NI	NI	NI	NI	NI	NI	NI	LTSM	LTSM	NI	LTS
Impact GEO-3: Geologic Hazards and Wave Exposure	NI	NI	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Impact GEO-4: Shoreline Stability and Littoral Transport	NI	NI	NI	LTS	LTS	NI	NI	NI	NI	NI	NI
Impact GEO-5: Cumulative Impacts to Geology and Coastal Processes	LTSM	LTSM	LTSM	LTSM	LTSM	LTS	LTS	LTSM	LTSM	LTSM	LTSM
Section 4.7, Greenhouse Gas Emissions											
Impact GHG-1: Decommissioning-related GHG Emissions	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS

Impact	Impact Class Notes: B = Beneficial; LTS = Less than Significant; LTSM = Less than Significant with Mitigation; NI = No Impact, SU = Significant and Unavoidable Impact										
	Rincon Island	**Rincon Island -** Public Facilities Retention	**SCC Parcel** Option 1	**SCC Parcel** Option 2	**SCC Parcel** Option 3	**Onshore Pipeline Connections**	**Onshore Facility** Option1	**Onshore Facility** Option 2	**Onshore Facility** Option 3	**Onshore Facility** Option 4	**Onshore Facility** Option5
Impact GHG-2: Project Contribution to Global Climate Change	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Section 4.8, Hazards and Hazardous Materials											
Impact HAZ-1: Release of Hazardous Materials During or Following Decommissioning Activities	LTSM	LTSM	NI	NI	NI	LTS	LTS/B	LTSM/B	LTSM/B	LTS/B	LTSM/B
Impact HAZ-2: Release of Hazardous Materials from Project Equipment and Machinery During Decommissioning Activities	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM
Impact HAZ-3: Potential Cumulative Hazardous Materials Impacts	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM
Section 4.9, Hydrology and Water Quality											
Impact HWQ-1: Construction-related Erosion and Sedimentation Impacts to Marine and Onshore Water Quality	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM
Impact HWQ-2: Construction-related Water Consumption Impacts on Groundwater Resources	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS

Impact	Impact Class Notes: B = Beneficial; LTS = Less than Significant; LTSM = Less than Significant with Mitigation; NI = No Impact, SU = Significant and Unavoidable Impact										
	Rincon Island	**Rincon Island -** Public Facilities Retention	**SCC Parcel** Option 1	**SCC Parcel** Option 2	**SCC Parcel** Option 3	**Onshore Pipeline Connections**	**Onshore Facility** Option1	**Onshore Facility** Option 2	**Onshore Facility** Option 3	**Onshore Facility** Option 4	**Onshore Facility** Option5
Impact HWQ-3: Remediation and Discharge of Groundwater on of the Onshore Facility	NI	NI	NI	NI	NI	NI	LTS	LTS	LTS	LTS	LTS
Impact HWQ-4: Potential for Cumulative Water Quality Impacts	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM
Section 4.10, Land Use and Planning											
Impact LU-1: Temporary Conflicts with State and Local Policies	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM
Impact LU-2: Cumulative Impacts of Project Construction	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM
Section 4.11, Noise											
Impact N-1: Noise Impacts to Sensitive Receptors	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Impact N-2: Vibration Impacts to Residents and Structures	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Impact N-3: Cumulative Decommissioning Noise	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Section 4.12, Recreation											
Impact REC-1: Temporary Loss of Recreational Access to Beach and Ocean Areas Due to Onsite Project Activities	NI	NI	LTS	LTS	LTS	LTS	NI	NI	NI	NI	NI

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	Rincon Island	**Rincon Island -** Public Facilities Retention	**SCC Parcel** Option 1	**SCC Parcel** Option 2	**SCC Parcel** Option 3	**Onshore Pipeline Connections**	**Onshore Facility** Option1	**Onshore Facility** Option 2	**Onshore Facility** Option 3	**Onshore Facility** Option 4	**Onshore Facility** Option5
Impact REC-2: Temporary Interference with Recreational Traffic on Ventura Coastal Trail	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM
Impact REC-3: Permanent Changes to Recreational Access to Mussel Shoals Beach Area	NI	B	B	B	LTS	NI	NI	NI	NI	NI	NI
Impact REC-4: Cumulative Recreational Impacts	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM	LTSM
Section 4.13, Transportation and Traffic											
Impact T-1: Decommissioning Vehicle Trip Generation and VMT	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Impact T-2: Contribution to Cumulative Vehicle Trip Generation and VMT	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Section 4.14, Utilities and Service Systems											
Impact US-1: Generation of Project Waste During Decommissioning Activities	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Impact US-2: Cumulative Generation of Waste that Would Affect Waste Receiving Facilities	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Section 4.15, Wildfire											
Impact WF-1: Temporary Increase in Risk to Wildfire During Decommissioning	NI	NI	LTS	LTS	LTS	LTSM	NI	NI	NI	NI	NI

Impact	Impact Class Notes: B = Beneficial; LTS = Less than Significant; LTSM = Less than Significant with Mitigation; NI = No Impact, SU = Significant and Unavoidable Impact										
	Rincon Island	**Rincon Island -** Public Facilities Retention	**SCC Parcel** Option 1	**SCC Parcel** Option 2	**SCC Parcel** Option 3	**Onshore Pipeline Connections**	**Onshore Facility** Option1	**Onshore Facility** Option 2	**Onshore Facility** Option 3	**Onshore Facility** Option 4	**Onshore Facility** Option5
Activities Within an Area Designated as Very High Fire Hazard Severity Zone by CAL FIRE											
Impact WF-2: Cumulative Impacts to Potential Wildfire	NI	NI	LTS	LTS	LTS	LTSM	NI	NI	NI	NI	NI

Table ES-2. Comparison of Project Impacts by Site to Project Alternatives

IMPACT NUMBER*	Notes: B = Beneficial; LTS = Less than Significant; LTSM = Less than Significant with Mitigation; NI = No Impact, SU = Significant and Unavoidable Impact; "+" = more impact than the proposed Project; "-" = less impact than the proposed Project								
	Most Impactful Option at Proposed Project Site(s)				Project Alternatives				
	Rincon Island	SCC Parcel	Onshore Pipeline Connections	Onshore Facility	No Project Alternative	Reefing Alternative	Partial Causeway Removal Alternative	Abutment and Revetment Retention Alternative	Offshore Disposal Alternative
AESTHETICS									
AES-1	LTSM	LTSM	LTSM	LTSM	NI	LTSM+	LTSM+	LTSM+	SU
AES-2	NI	LTS/B	NI	LTS	NI	B	B	B	LTS
AES-3	LTSM	LTSM	LTSM	LTSM	NI	LTSM	LTSM	LTSM	SU
AIR QUALITY									
AQ-1	LTS	LTS	LTS	LTS	NI	LTS	LTS	LTS	LTS
AQ-2	LTS	LTS	LTS	LTS	NI	LTS	LTS	LTS	LTS
BIOLOGICAL RESOURCES									
BIO-1	LTS	LTS	NI	LTSM	NI	LTS+	LTS+	LTS+	LTS
BIO-2	NI	LTS	NI	LTS	NI	LTS+	LTS+	LTS+	LTSM+
BIO-3	NI	NI	NI	LTSM	NI	LTSM	LTSM	LTSM	LTSM
BIO-4	NI	LTSM	NI	NI	NI	LTSM	LTSM	LTSM	LTSM
BIO-5	LTS	LTS	NI	NI	NI	LTS+	LTS+	LTS+	LTS+
BIO-6	LTSM	LTSM	LTSM	LTSM	NI	LTSM	LTSM	LTSM	LTSM

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	Most Impactful Option at Proposed Project Site(s)				Project Alternatives				
	Rincon Island	SCC Parcel	Onshore Pipeline Connections	Onshore Facility	No Project Alternative	Reefing Alternative	Partial Causeway Removal Alternative	Abutment and Revetment Retention Alternative	Offshore Disposal Alternative
CULTURAL AND HISTORIC RESOURCES									
CR-1	LTS	NI	NI	NI	NI	SU	SU	SU	LTS
CR-2	LTS	LTSM	LTSM	LTSM	NI	LTSM	LTSM	LTSM	LTSM
CR-3	LTS	LTSM	LTSM	LTSM	NI	LTSM	LTSM	LTSM	LTSM
CULTURAL RESOURCES - TRIBAL									
TCR-1	LTS	LTSM	LTSM	LTSM	NI	LTSM	LTSM	LTSM	LTSM
TCR-2	LTS	LTSM	LTSM	LTSM	NI	LTSM	LTSM	LTSM	LTSM
GEOLOGY AND COASTAL PROCESSES									
GEO-1	LTSM	LTSM	NI	LTSM	NI	LTSM	LTSM	LTSM	LTSM
GEO-2	NI	NI	NI	LTSM	NI	LTSM	LTSM	LTSM	LTSM
GEO-3	NI	LTS	LTS	LTS	NI	LTS	LTS	LTS	LTS
GEO-4	NI	LTS	NI	NI	NI	LTS	LTS	LTS	B
GEO-5	LTSM	LTSM	LTS	LTSM	NI	LTSM	LTSM	LTSM	LTSM
GREENHOUSE GAS EMISSIONS									
GHG-1	LTS	LTS	LTS	LTS	NI	LTS	LTS	LTS	LTS

IMPACT NUMBER*	Notes: B = Beneficial; LTS = Less than Significant; LTSM = Less than Significant with Mitigation; NI = No Impact, SU = Significant and Unavoidable Impact; "+" = more impact than the proposed Project; "-" = less impact than the proposed Project								
	Most Impactful Option at Proposed Project Site(s)				Project Alternatives				
	Rincon Island	SCC Parcel	Onshore Pipeline Connections	Onshore Facility	No Project Alternative	Reefing Alternative	Partial Causeway Removal Alternative	Abutment and Revetment Retention Alternative	Offshore Disposal Alternative
GHG-2	LTS	LTS	LTS	LTS	NI	LTS	LTS	LTS	LTS
HAZARDS AND HAZARDOUS MATERIALS									
HAZ-1	LTSM	NI	LTS	B/ LTSM	NI	LTSM+	LTSM+	LTSM+	LTSM+
HAZ-2	LTSM	LTSM	LTSM	LTSM	NI	LTSM+	LTSM+	LTSM+	LTSM+
HAZ-3	LTSM	LTSM	LTSM	LTSM	NI	LTSM	LTSM	LTSM	LTSM
HYDROLOGY AND WATER QUALITY									
HWQ-1	LTSM	LTSM	LTSM	LTSM	SU	LTSM+	LTSM+	LTSM+	LTSM+
HWQ-2	LTS	LTS	LTS	LTS	NI	LTS	LTS	LTS	LTS
HWQ-3	LTS	NI	NI	LTS	NI	LTS	LTS	LTS	LTS
HWQ-4	LTSM	LTSM	LTSM	LTSM	NI	LTSM	LTSM	LTSM	LTSM+
LAND USE AND PLANNING									
LU-1	LTSM	LTSM	LTSM	LTSM	NI	LTSM	LTSM	LTSM	LTSM
LU-2	LTSM	LTSM	LTSM	LTSM	NI	LTSM	LTSM	LTSM	LTSM
NOISE									

IMPACT NUMBER*	Notes: B = Beneficial; LTS = Less than Significant; LTSM = Less than Significant with Mitigation; NI = No Impact, SU = Significant and Unavoidable Impact; "+" = more impact than the proposed Project; "-" = less impact than the proposed Project								
	Most Impactful Option at Proposed Project Site(s)				Project Alternatives				
	Rincon Island	SCC Parcel	Onshore Pipeline Connections	Onshore Facility	No Project Alternative	Reefing Alternative	Partial Causeway Removal Alternative	Abutment and Revetment Retention Alternative	Offshore Disposal Alternative
N-1	LTS	LTS	LTS	LTS	NI	LTS+	LTS+	LTS+	LTS+
N-2	LTS	LTS	LTS	LTS	NI	LTS+	LTS+	LTS+	LTS+
N-3	LTS	LTS	LTS	LTS	NI	LTS	LTS	LTS	LTS+
RECREATION									
REC-1	NI	LTS	LTS	NI	NI	LTSM+	LTSM	LTSM	LTSM
REC-2	LTSM	LTSM	LTSM	LTSM	NI	LTSM+	LTSM+	LTSM+	LTSM-
REC-3	NI	LTS/B	NI	NI	NI	B	B	B	B
REC-4	LTSM	LTSM	LTSM	LTSM	NI	LTSM	LTSM	LTSM	LTSM
TRANSPORTATION AND TRAFFIC									
T-1	LTS	LTS	LTS	LTS	NI	LTS+	LTS+	LTS+	LTS
T-2	LTS	LTS	LTS	LTS	NI	LTS	LTS	LTS	LTS
UTILITIES AND SERVICE SYSTEMS									
US-1	LTS	LTS	LTS	LTS	NI	LTS+	LTS+	LTS+	LTS
US-2	LTS	LTS	LTS	LTS	NI	LTS	LTS	LTS	LTS
WILDFIRE									

IMPACT NUMBER*	Notes: B = Beneficial; LTS = Less than Significant; LTSM = Less than Significant with Mitigation; NI = No Impact, SU = Significant and Unavoidable Impact; "+" = more impact than the proposed Project; "-" = less impact than the proposed Project								
	Most Impactful Option at Proposed Project Site(s)				**Project Alternatives**				
	Rincon Island	**SCC Parcel**	**Onshore Pipeline Connections**	**Onshore Facility**	**No Project Alternative**	**Reefing Alternative**	**Partial Causeway Removal Alternative**	**Abutment and Revetment Retention Alternative**	**Offshore Disposal Alternative**
WF-1	NI	LTS	LTSM	NI	NI	LTSM	LTSM	LTSM	LTSM
WF-2	NI	LTS	LTSM	NI	NI	LTSM	LTSM	LTSM	LTSM

*Please see Table ES-1 for full text of each Impact number statement
Full analysis of each Project Alternative is provided in Section 5

Table ES-3. Project Mitigation Summary

Impact	Recommended MMs
AESTHETICS	
Impact AES-1: Temporary Effects on Public Views from Decommissioning Activities	**MM AES-1a**: Overnight Storage of Equipment **MM AES-1b**: Material Removal at Construction Completion **MM AES-1c**: Minimize Night Lighting
Impact AES-2: Long-term Changes to Aesthetics as a Result of the Proposed Project	None Required
Impact AES-3: Potential for Cumulative Aesthetic Impacts to Public Views	**MM AES-1a**: Overnight Storage of Equipment **MM AES-1b**: Material Removal at Construction Completion **MM AES-1c**: Minimize Night Lighting
AIR QUALITY	
Impact AQ-1: Decommissioning-related Air Pollutant Emissions	**MM AQ-1:** Standard Ventura County Air Pollution Control District Construction Emissions Reduction Measures
Impact AQ-2: Cumulative Air Quality Impacts	**MM AQ-1:** Standard Ventura County Air Pollution Control District Construction Emissions Reduction Measures
BIOLOGICAL RESOURCES	
Impact BIO-1: Temporary Disturbance to Roosting, Foraging, and Nesting Birds, including California Brown Pelican, Osprey, and Double-Crested Cormorant	**MM BIO-1a**: Onshore Facility Nesting Season Avoidance or Pre-Construction Surveys **MM BIO-1b**: Environmental Awareness Training
Impact BIO-2: Temporary Effects to ESHA	None Required
Impact BIO-3: Temporary Impacts to Monarch Butterflies at the Onshore Facility	**MM BIO-1b**: Environmental Awareness Training **MM BIO-3**: Monarch Butterfly Avoidance

Impact	Recommended MMs
Impact BIO-4: Temporary Impacts to Western Snowy Plover at the SCC Parcel	**MM BIO-1b**: Environmental Awareness Training **MM BIO-4**: Pre-Activity Western Snowy Plover Survey
Impact BIO-5: Temporary Impacts to Marine Mammals	None Required
Impact BIO-6: Cumulative Impacts to Biological Resources	**MM BIO-1a**: Onshore Facility Nesting Season Avoidance or Pre-Construction Surveys **MM BIO-1b**: Environmental Awareness Training **MM BIO-3**: Monarch Butterfly Avoidance **MM BIO-4**: Pre-Activity Western Snowy Plover Survey
CULTURAL AND HISTORIC RESOURCES	
Impact CR-1: Potential Impacts to the Significance of a Historical Resource During Project Implementation	None Required
Impact CR-2: Substantial Adverse Change to Previously Undiscovered Cultural Resources During Project Implementation	**MM CUL-1/TCR-1**: Cultural and Tribal Cultural Resources Management and Treatment Plan **MM CUL-2/TCR-2**: Cultural and Tribal Cultural Resources Monitoring **MM CUL-3/TCR-3**: Cultural and Tribal Cultural Resources Awareness Training **MM CUL-4/TCR-4**: Discovery of Previously Unknown Cultural or Tribal Cultural Resources **MM CUL-5/TCR-5**: Unanticipated Discovery of Human Remains
Impact CR-3: Cumulative Impacts to Cultural Resources	**MM CUL-1/TCR-1**: Cultural and Tribal Cultural Resources Management and Treatment Plan **MM CUL-2/TCR-2**: Cultural and Tribal Cultural Resources Monitoring

Impact	Recommended MMs
	MM CUL-3/TCR-3: Cultural and Tribal Cultural Resources Awareness Training **MM CUL-4/TCR-4**: Discovery of Previously Unknown Cultural or Tribal Cultural Resources **MM CUL-5/TCR-5**: Unanticipated Discovery of Human Remains
CULTURAL RESOURCES - TRIBAL	
Impact TCR-1: Substantial Adverse Change to Previously Undiscovered Tribal Cultural Resources During Project Implementation	**MM CUL-1/TCR-1**: Cultural and Tribal Cultural Resources Management and Treatment Plan **MM CUL-2/TCR-2**: Cultural and Tribal Cultural Resources Monitoring **MM CUL-3/TCR-3**: Cultural and Tribal Cultural Resources Awareness Training **MM CUL-4/TCR-4**: Discovery of Previously Unknown Cultural or Tribal Cultural Resources **MM CUL-5/TCR-5**: Unanticipated Discovery of Human Remains
Impact TCR-2: Cumulative Impacts to Tribal Cultural Resources	**MM CUL-1/TCR-1**: Cultural and Tribal Cultural Resources Management and Treatment Plan **MM CUL-2/TCR-2**: Cultural and Tribal Cultural Resources Monitoring **MM CUL-3/TCR-3**: Cultural and Tribal Cultural Resources Awareness Training **MM CUL-4/TCR-4**: Discovery of Previously Unknown Cultural or Tribal Cultural Resources **MM CUL-5/TCR-5**: Unanticipated Discovery of Human Remains

Impact	Recommended MMs
GEOLOGY AND COASTAL PROCESSES	
Impact GEO-1: Temporary Increase in Surface Erosion During Decommissioning and Soil Remediation Activities	**MM GEO-1**: Grading and Erosion Control Plan **MM AQ-1**: Standard Ventura County Air Pollution Control District Construction Emissions Reduction Measures (Fugitive Dust Control) **MM HWQ-1**: Storm Water Pollution Prevention Plan
Impact GEO-2: Paleontological Resources	**MM GEO-2**: Paleontological Monitoring and Mitigation Plan
Impact GEO-3: Geologic Hazards and Wave Exposure	None Required
Impact GEO-4: Shoreline Stability and Littoral Transport	None Required
Impact GEO-5: Cumulative Impacts to Geology and Coastal Processes	**MM GEO-1**: Grading and Erosion Control Plan **MM AQ-1**: Standard Ventura County Air Pollution Control District Construction Emissions Reduction Measures (Fugitive Dust Control) **MM HWQ-1**: Storm Water Pollution Prevention Plan
GREENHOUSE GAS EMISSIONS	
Impact GHG-1: Decommissioning-related GHG Emissions	None Required
Impact GHG-2: Project Contribution to Global Climate Change	None Required
HAZARDS AND HAZARDOUS MATERIALS	
Impact HAZ-1: Release of Hazardous Materials During or Following Decommissioning Activities	**MM HAZ-1a**: Remedial Action Plan Implementation **MM HAZ-1b**: Hydrocarbon Contaminated Soil Notification(s) and BMPs

Impact	Recommended MMs
	MM HAZ-1c: Oil Spill Contingency Plan Implementation **MM HAZ-1d**: Hazardous Materials Management and Contingency Plan **MM HAZ-1e**: Asbestos Abatement Workplan **MM HWQ-1**: Storm Water Pollution Prevention Plan
Impact HAZ-2: Release of Hazardous Materials from Project Equipment and Machinery During Decommissioning Activities	**MM HAZ-1c**: Oil Spill Contingency Plan Implementation **MM HAZ-1d**: Hazardous Materials Management and Contingency Plan
Impact HAZ-3: Potential Cumulative Hazardous Materials Impacts	**MM HAZ-1a**: Remedial Action Plan Implementation **MM HAZ-1b**: Hydrocarbon Contaminated Soil Notification(s) and BMPs **MM HAZ-1c**: Oil Spill Contingency Plan Implementation **MM HAZ-1d:** Hazardous Materials Management and Contingency Plan **MM HAZ-1e**: Asbestos Abatement Workplan **MM HWQ-1**: Storm Water Pollution Prevention Plan
HYDROLOGY AND WATER QUALITY	
Impact HWQ-1: Construction-related Erosion and Sedimentation Impacts to Marine and Onshore Water Quality	**MM HWQ-1**: Storm Water Pollution Prevention Plan
Impact HWQ-2: Construction-related Water Consumption Impacts on Groundwater Resources	None Required
Impact HWQ-3: Remediation and Discharge of Groundwater on the Onshore Facility	None Required
Impact HWQ-4: Potential for Cumulative Water Quality Impacts	**MM HWQ-1**: Storm Water Pollution Prevention Plan

Impact	Recommended MMs
LAND USE AND PLANNING	
Impact LU-1: Temporary Conflicts with State and Local Policies	**MM AES-1a**: Overnight Storage of Equipment **MM AES-1b**: Material Removal at Construction Completion **MM AES-1c**: Minimize Night Lighting **MM AQ-1**: Standard Ventura County Air Pollution Control District Construction Emissions Reduction Measures **MM BIO-1a**: Onshore Facility Nesting Season Avoidance or Pre-Construction Surveys **MM BIO-1b**: Environmental Awareness Training **MM BIO-3**: Monarch Butterfly Avoidance **MM BIO-4**: Pre-Activity Western Snowy Plover Survey **MM CUL-1/TCR-1**: Cultural and Tribal Cultural Resources Management and Treatment Plan (CRMTP) **MM CUL-2/TCR-2**: Cultural and Tribal Cultural Resources Monitoring **MM CUL-3/TCR-3**: Cultural and Tribal Cultural Resources Awareness Training **MM CUL-4/TCR-4**: Discovery of Previously Unknown Cultural or Tribal Cultural Resources **MM CUL-5/TCR-5**: Unanticipated Discovery of Human Remains **MM GEO-1**: Grading and Erosion Control Plan **MM GEO-2**: Paleontological Monitoring and Mitigation Plan **MM HAZ-1a**: Remedial Action Plan Implementation **MM HAZ-1b**: Hydrocarbon Contaminated Soil

Impact	Recommended MMs
	Notification(s) and BMPs **MM HAZ-1c**: Oil Spill Contingency Plan Implementation **MM HAZ-1d**: Hazardous Materials Management and Contingency Plan **MM HAZ-1e**: Asbestos Abatement Workplan **MM HWQ-1**: Storm Water Pollution Prevention Plan **MM NOI-1**: Notification of Work Activities Posted at Mussel Shoals **MM REC-1**: Recreational Site Access and Traffic Management Plan **MM WF-1a**: Fire Management and Prevention Plan **MM WF-1b**: Ventura County Noticing Requirements
Impact LU-2: Cumulative Impacts of Project Construction	Same as Above
NOISE	
Impact N-1: Noise Impacts to Sensitive Receptors	None Required
Impact N-2: Vibration Impacts to Residents and Structures	None Required
Impact N-3: Cumulative Decommissioning Noise	None Required
RECREATION	
Impact REC-1: Temporary Loss of Recreational Access to Beach and Ocean Areas Due to Onsite Project Areas	None Required
Impact REC-2: Temporary Interference with Recreational Traffic On Ventura Coastal Trail	**MM REC-1**: Recreational Site Access and Traffic Management Plan

Impact	Recommended MMs
Impact REC-3: Permanent Changes to Recreational Access to Mussel Shoals Beach Area	None Required
Impact REC-4: Cumulative Recreational Impacts	**MM REC-1**: Recreational Site Access and Traffic Management Plan
TRANSPORTATION AND TRAFFIC	
Impact T-1: Decommissioning Vehicle Trip Generation and VMT	**MM REC-1**: Recreational Site Access and Traffic Management Plan
Impact T-2: Contribution to Cumulative Vehicle Trip Generation and VMT	**MM REC-1**: Recreational Site Access and Traffic Management Plan
UTILITIES AND SERVICE SYSTEMS	
Impact US-1: Generation of Project Waste During Decommissioning Activities	None Required
Impact US-2: Cumulative Generation of Waste that Would Affect Waste Receiving Facilities	None Required
WILDFIRE	
Impact WF-1: Temporary Increase in Risk to Wildfire During Decommissioning Activities Within an Area Designated as Very High Fire Hazard Severity Zone by CAL FIRE	**MM WF-1a**: Fire Management and Prevention Plan **MM WF-1b**: Ventura County Noticing Requirements
Impact WF-2: Cumulative Impacts to Potential Wildfire	**MM WF-1a**: Fire Management and Prevention Plan **MM WF-1b**: Ventura County Noticing Requirements

1.0 INTRODUCTION

The California State Lands Commission (CSLC or Commission), as representative owner of the State-owned sovereign lands known as (former) State Oil and Gas Lease Nos. PRC 145, PRC 410, and PRC 1466, is analyzing the potential environmental impacts associated with the Rincon Phase 2 Decommissioning Project (Project). Rincon Island (or Island) and its associated facilities were historically leased by CSLC to oil and gas operators, including most recently Rincon Island Limited Partnership, which quitclaimed (transferred) its lease interests to CSLC in December 2017 after becoming financially insolvent. Thereafter, the State of California (State) pursued decommissioning of the oil and gas related facilities and final disposition of Rincon Island. CSLC is the lead agency under the California Environmental Quality Act (CEQA; Pub. Resources Code, § 21000 et seq.) for the Project.

1.1 PROJECT LOCATION

Rincon Island is located approximately 3,000 feet offshore of Punta Gorda in Ventura County, approximately 7 miles northwest of the city of Ventura, California (Figures 1-1 and 1-2). Rincon Island is located immediately offshore of the community of Mussel Shoals and approximately 0.5 mile south of the community of La Conchita. The Island is located in approximately 55 feet of water. The Rincon Island Causeway (causeway), or access pier, connects the Island to the coast. A State Coastal Conservancy (SCC) Parcel, included in the decommissioning analysis, is located just east of the causeway landing (abutment) within Assessor's Parcel Number (APN) 060-0-090-425.

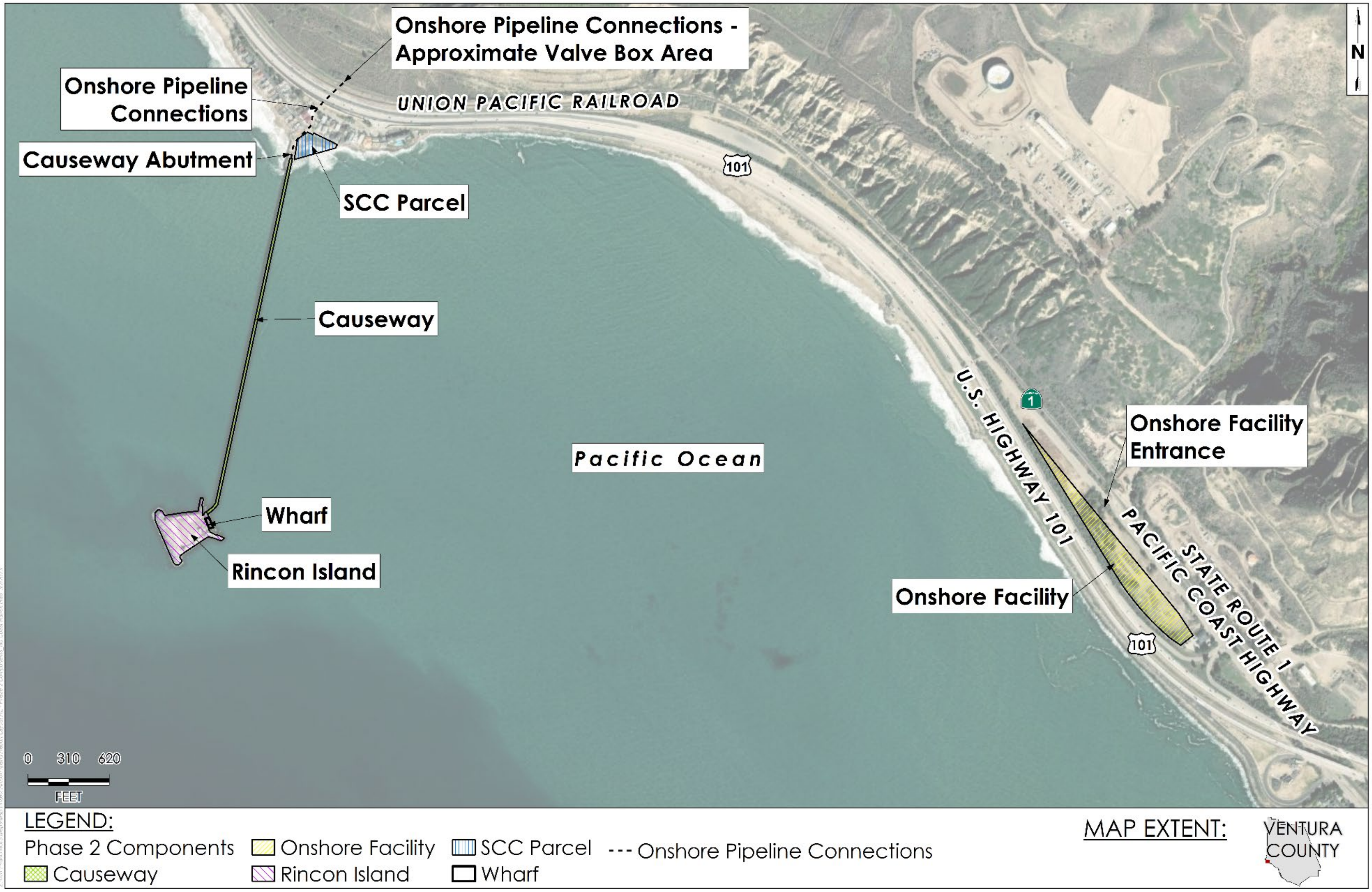
The Onshore Facility consists of a 6.01-acre parcel owned by the State located 1.3 miles to the east of Rincon Island at 5750 W. Pacific Coast Highway (PCH), Ventura. Rincon Island and the Onshore Facility were previously connected by a pipeline system, until they were disconnected as part of the well plugging and abandonment process (see Figure 1-2).

1.2 PROJECT BACKGROUND

In December 2017, Rincon Island Limited Partnership quitclaimed (transferred) its lease interests (State Oil and Gas Lease Nos. PRC 145, PRC 410, and PRC 1466) to CSLC after becoming financially insolvent. Thereafter, the State pursued decommissioning of the oil and gas related facilities and final disposition of Rincon Island.

Figure 1-1. Site Location Map

Figure 1-2. Project Sites Overview Map



Phase 1 of this process included the plugging and abandonment of all oil and gas wells and removal of surface equipment at Rincon Island, the Onshore Facility, and the adjacent privately owned Coast Ranch parcel. Phase 1 activities were completed in June 2021. Phase 2 of the Rincon decommissioning effort includes the development of a Feasibility Study (which was completed on July 22, 2022) and analysis under CEQA.

1.2.1 Project Purpose and Need

The Project purpose is decommissioning of the subject facilities in accordance with existing federal, state, and local regulations. The proposed Project activities would be completed during Phase 3 to prepare Rincon Island and the Onshore Facility for new uses, including but not limited to co-management with sovereign tribal nations, consistent with the Public Trust. Following completion of the Project, any specific proposed future use of the Rincon facilities would require submission of an application to CSLC for a new lease and would be reviewed separately under CEQA. In addition to a CSLC lease, future reuse may require additional permit approvals from other agencies.

1.2.2 Project Objectives

The objectives of the Project are to:

- Prepare Rincon Island and the Onshore Facility for new uses, including but not limited to co-management with sovereign tribal nations, consistent with the Public Trust
- Retain the biological diversity associated with Rincon Island and its adjacent marine environment
- Remediate contamination at Rincon Island and the Onshore Facility
- Decommission the pipelines previously used for oil and gas production and conveyance
- Improvement of the SCC Parcel to enhance public access for recreational opportunities and installation of erosion reduction methods to prevent potential future loss of existing adjacent access roads

As described above, a Feasibility Study considering a number of Project alternatives was completed on July 22, 2022. A copy of the Feasibility Study can be reviewed here: (https://slcprdwordpressstorage.blob.core.windows.net/wordpressdata/2022/07/Rincon-FS-Final_webacc.pdf). Based on the results of the Feasibility Study, the

Commission determined what the proposed Project would be for the purposes of CEQA analysis. The options considered under the proposed Project (as detailed in Section 2 of this document) would require the least number of decommissioning tasks and would result in fewer temporary impacts associated with demolition and remediation activities. Specifically, the existing visual character of Rincon Island and the causeway would remain unchanged. Retention of Rincon Island would protect the existing biological diversity (terrestrial and marine) that use the structure. Remediation of hydrocarbon-contaminated soil and interstitial water at Rincon Island, and soil and groundwater at the Onshore Facility, would remove any long-term risk of exposure to the existing community or environment from the Rincon facilities. Rincon Island and the Onshore Facility would be available for new uses, including but not limited to co-management with sovereign tribal nations, consistent with the Public Trust. The pipelines previously used to transport oil and gas produced from State lands would be decommissioned. Proposed improvements at the SCC Parcel would improve public access to the coast, including by reducing future erosion and removing exposed coastal hazards, as appropriate, along the shoreline.

1.3 OVERVIEW OF ENVIRONMENTAL REVIEW PROCESS

1.3.1 Project Context with Respect to CEQA

The actions proposed by CSLC are subject to CEQA. Pursuant to State CEQA Guidelines section 15378[2], CSLC must review "the whole of [the] action that has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." With limited exceptions, CEQA requires the Commission, before approving a project over which it has discretionary authority, to consider the environmental consequences of the project. CEQA establishes procedural and substantive requirements that agencies must satisfy to meet CEQA's objectives, which are (State CEQA Guidelines, §§ 15002 and 15083):

- Inform governmental decision makers and the public about the potential significant environmental effects of proposed activities
- Identify ways that environmental damage can be avoided or significantly reduced

2 https://opr.ca.gov/ceqa/guidelines/

- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible
- Disclose to the public the reasons why the agency approved the project in the manner the agency chose if significant environmental effects are involved
- Foster multi-disciplinary interagency coordination in the review of projects
- Enhance public participation in the planning process

Other key requirements include carrying out specific noticing and distribution actions to maximize public involvement in the environmental review process. Public Resources Code § 21002 (Approval of Projects; Feasible Alternative or Mitigation Measures, Amended 2022) also states in part that it is the State's policy that public agencies:

> … should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects.

CSLC staff determined that the proposed Project options considered could result in significant environmental impacts, and that an Environmental Impact Report (EIR) is required to analyze the Project and feasible alternatives. The purpose of an EIR is not to recommend either approval or denial of a project. The EIR is an informational document that assesses the potential environmental effects of a project and identifies mitigation measures and project alternatives that could reduce or avoid significant environmental impacts (State CEQA Guidelines, § 15121). Consistent with CEQA requirements, CSLC has engaged in a good faith, reasonable effort towards full public disclosure of the potential effects of the proposed Project.

1.3.2 Public Scoping

Through the Project's Notice of Preparation (NOP) https://slcprdwordpressstorage.blob.core.windows.net/wordpressdata/2022/09/Rincon_NOP_October2022_ADA.pdf, CSLC solicited comments on the EIR's scope during a 30-day comment period beginning on October 4, 2022, and ending on November 4, 2022, and at two sessions of a scoping meeting held on October 20, 2022. Table 1-1 lists commenters on the NOP (see Appendix A, Public Scoping Documents, for meeting transcripts and an index to where scoping comments are addressed in this EIR).

Table 1-1. NOP Commenters

Classification	Name	Written	Oral (at scoping meeting)
Agency	California Coastal Commission	✓	
	California Department of Fish and Wildlife – South Coast Region	✓	
	Caltrans	✓	
	Native American Heritage Commission (NAHC)	✓	
	U.S. Army Corps of Engineers (USACE)	✓	
	Ventura County Air Pollution Control District	✓	
	Ventura County Resources Management Agency – Cultural Heritage Board	✓	
Non-Governmental Organization	Heal the Ocean	✓	
	Ventura County Commercial Fishermen's Association (Dave Colker)		✓
	Ventura County Commercial Fishermen's Association (Jeff Maassen)		✓
Private Individual or Entity	Marjorie Badger		✓
	Robert Brunner	✓	✓
	Coast Ranch Family, LLC (c/o Musick Peeler)	✓	
	Dan Reddick	✓	✓
	Pam Worden		✓

1.3.3 Availability of EIR

Placing CEQA documents at readily accessible sites such as local libraries can be an effective way to provide information about a project. This EIR is available for review at four sites within the proposed Project area (see below). Please contact Cynthia Herzog at cynthia.herzog@slc.ca.gov for the most up-to-date information on the availability of the EIR or if you would like to receive a hard copy. Please note that hard copies will be printed on demand and may take several days to produce and ship. The full document can also be viewed on the CSLC website at www.slc.ca.gov/Info/CEQA.html.

Locations to Review the EIR

Libraries:

E.P. Foster Library
651 E. Main Street
Ventura, CA 93001
(805) 626-7323

Carpinteria Community Library
5141 Carpinteria Avenue
Carpinteria, CA 93013
(805) 684-4314

City/County Offices:

City of Carpinteria, Planning and Environmental Review
Attn: Nick Bobroff
5775 Carpinteria Avenue
Carpinteria, CA 93013
(805) 684-5405

County of Ventura
Attn: Dave Ward
800 South Victoria Avenue
Ventura, CA 93009
(805) 654-2481

1.4 PURPOSE AND SCOPE OF EIR

The purpose of this EIR is to identify the significant impacts of the proposed Project on the environment, identify alternatives to the Project, and indicate the manner in which those significant impacts can be mitigated or avoided (Pub. Resources Code, § 21002.1, subd. (a)). CSLC has prepared this EIR in accordance with CEQA and the State CEQA Guidelines to document CSLC's evaluation of the potential for environmental impacts associated with implementation of the Project.

1.4.1 Baseline Conditions

Baseline conditions for an EIR are defined as the existing physical setting that may be affected by a project (State CEQA Guidelines, § 15125, subd. (a)), which for this Project includes Rincon Island, the causeway, causeway abutment, SCC Parcel area, Onshore Pipeline Connections from the abutment to the vault box (herein referred to as the "OPC"), and Onshore Facility, as well as associated onshore transportation routes to facilitate the proposed Project decommissioning activities. This setting constitutes the baseline physical conditions by which the Commission will determine whether impacts from the proposed Project and Project alternatives are significant. Impacts are defined as changes to the environmental setting that are attributable to Project components or operations. Potential impacts are often analyzed in the context of the local and regional physical environmental conditions existing at the time the NOP for the EIR was released (in this case, October 2022).

1.4.2 Potential Impacts and Summary of Alternatives Evaluated

The EIR identifies potential significant impacts of the proposed Project on the environment and indicates if and how the impacts can be avoided or reduced by mitigation measures or alternatives. As described in Section 4, Environmental Impact Analysis, the following resource areas would not be impacted by the Project:

- Agricultural and Forestry Resources
- Mineral Resources
- Energy
- Population and Housing
- Public Services

The Project could have a significant impact on the following resource areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Cultural Resources – Tribal
- Geology, Soils, and Paleontological Resources
- Greenhouse Gas Emissions

- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Recreation
- Transportation and Traffic
- Utilities and Service Systems
- Wildfire

Pursuant to State CEQA Guidelines section 15126.6, an EIR must describe and evaluate a range of reasonable alternatives that would feasibly attain most of a project's basic objectives and would avoid or substantially lessen any of the significant impacts of a project as proposed. The State CEQA Guidelines also state that the range of alternatives required to be evaluated in an EIR is governed by the "rule of reason" (§ 15126.6, subd (f)) – that is, an EIR needs to describe and evaluate only those alternatives necessary to permit a reasoned choice and to foster informed decision making and public participation. The State CEQA Guidelines also require that the EIR evaluate a "No Project" alternative and, under specific circumstances, designate an environmentally superior alternative from among the remaining alternatives. Please see Section 5.0, Project Alternatives Analysis, and Section 6.0, Other Required CEQA Sections and Environmentally Superior Alternative Discussion.

1.4.3 Cumulative Impact Analysis

An EIR must discuss the cumulative impacts of a project when the project's incremental effect is "cumulatively considerable" (State CEQA Guidelines, § 15130). A cumulative impact is an impact that is created through a combination of the project analyzed in the EIR and other closely related past, present, and reasonably foreseeable probable future projects in the area causing related impacts. Section 3, Cumulative Projects, defines the applicable geographic scope of the cumulative analysis (cumulative projects study area) and lists projects included in the cumulative environment.

1.5 PROJECT JURISDICTION AND ANTICIPATED APPROVALS

1.5.1 Project Jurisdiction

Former State Oil and Gas Lease Nos. PRC 145, PRC 410, and PRC 1466 are located within the coastal zone of unincorporated Ventura County. Rincon Island is located approximately 3,000 feet offshore of the community of Mussel Shoals and connected to Mussel Shoals via the causeway (see Figures 1-1, 1-2, and 4.10-1). A summary of jurisdiction related to each Project site is included in

Table 1-2 below. Although most of the Project is located directly within CSLC jurisdiction, certain sites within County of Ventura and CCC jurisdictions have also been included because they relate to the primary Project components. Specifically, the SCC Parcel has been included at SCC's request because the SCC Parcel is directly downcoast of the causeway and adjacent to the causeway abutment, could be affected if offshore Project components were to be removed, and could potentially be benefited by future reuse or reefing of Rincon Island. Additionally, to decommission the OPC that were used for oil and gas production from Rincon Island and the Onshore Facility, access is required at the OPC vault structure north of the Union Pacific Railroad (UPRR) and U.S. Highway 101 (see Figure 1-2).

1.5.1.1 Project Sites

Several Project sites are included in the proposed Project impact area (Table 1-2). Rincon Island and the causeway, the Onshore Facility, and a portion of the SCC Parcel (below the mean high tide line (MHTL)) are within the jurisdiction of CSLC. All Project components above the MHTL are within the unincorporated areas of Ventura County, and also under the jurisdiction of the California Coastal Commission (CCC) within the coastal zone.

Table 1-2. Parcels and Jurisdictions for the Project Sites

Area or Assessor's Parcel Number	Description	Jurisdiction
State Tidelands & Submerged Lands	Area of Former Lease PRC 1466, including Rincon Island and the causeway	CSLC, California Coastal Commission, and Los Angeles Regional Water Quality Control Board
State Tidelands & Submerged Lands	Areas of Former Lease Nos. PRC 145, 410, and 1466, into which wells were drilled from Rincon Island or the Onshore Site and adjacent private parcel	CSLC and California Geologic Energy Management Division (CalGEM)
State Filled Tidelands 060-0-010-043	Area of Former Lease PRC 410, known as the Onshore Facility	CSLC, California Coastal Commission, California Geologic Energy Management Division, Los Angeles Regional Water Quality

Area or Assessor's Parcel Number	Description	Jurisdiction
		Control Board, and Ventura County
060-0-090-010	Onshore Pipeline Connections	Ventura County and California Coastal Commission
060-0-090-042	SCC Parcel	Ventura County and California Coastal Commission

1.5.1.2 Anticipated Project Approvals

In addition to the action by CSLC, the Project may require permits and approvals from other reviewing authorities and regulatory agencies that may have oversight over aspects of the proposed Project activities, including, but not limited to, those listed in Table 1-3.

Specifically, the entire project is within the Coastal Zone; therefore, a coastal development permit to implement the final Project will ultimately be required. In 1983, the Coastal Commission certified a Local Coastal Program (LCP) for Ventura County. As such, the Ventura County Planning Division may process a Coastal Development Permit (CDP) for development within its LCP jurisdiction, and the LCP would be the standard of review. The portion of the Project within the Coastal Commission's retained jurisdiction would need a CDP processed by the Coastal Commission. However, as the Project spans both jurisdictions, Coastal Act Section 30601.3 authorizes the CCC to process a consolidated CDP application when the applicant, the local government(s), and the CCC all agree to do so. For consolidated permit applications, the Coastal Act is the standard of review for the entire Project, with the relevant Local Coastal Program providing guidance.

Table 1-3. Agreements, Permits, and Approvals

Agency	Anticipated Agreement, Permit, or Approval
State	
California State Lands Commission	Certification of EIR Approval of Decommissioning Project
California Coastal Commission	Coastal Development Permit[3]

[3] Ventura County, State Lands Commission, and California Coastal Commission will discuss the possibility of consolidating permit review.

Agency	Anticipated Agreement, Permit, or Approval
California Geologic Energy Management Division	Well Site and Lease Restoration Approval
California Office of Historical Preservation	National Historic Preservation Act (NHPA); Section 106 Consultation
California Department of Fish and Wildlife, Office of Spill Prevention and Response	Oil Spill Contingency Plan Review
California Department of Fish and Wildlife	California Endangered Species Act Consultation
Regional Water Quality Control Board - Los Angeles Region	Section 401 Water Quality Certification Remedial Action Plan Approval
Federal	
U.S. Army Corps of Engineers, Los Angeles District	Section 404 Nationwide Permit Section 10 Permit (Rivers and Harbors Act)
U.S. Fish & Wildlife Service	Section 7 Consultation (Federal Endangered Species Act (FESA))
National Oceanic and Atmospheric Administration – National Marine Fisheries Services	Section 7 Consultation (FESA); Marine Mammal Protection Act (MMPA) and Essential Fish Habitat Assessment
U.S. Coast Guard	Notice to Mariners
Local	
Ventura County Environmental Health Division – Resource Management Agency	Local Land Use Consistency Review and Discretionary Permitting (if Required) Remedial Action Plan Approval Hazardous Materials Management Plan Review
Ventura County Air Pollution Control District	CEQA Review, Permit Exemption Confirmation, Asbestos Handling Permit
Tribal	
Local Tribes	Proposed Project activities will be coordinated with local tribes consistent with the CSLC's Tribal Consultation Policy adopted in August 2016

1.6 ORGANIZATION OF EIR

The EIR is presented in eight sections:

- **Section 1.0 – Introduction** provides background on the proposed Project, previous related environmental review, and the CEQA process.
- **Section 2.0 – Project Description** describes the proposed Project, its location, construction activities, monitoring, and schedule.
- **Section 3.0 – Cumulative Projects** identifies the projects that are analyzed for potential cumulative effects and the EIR's approach to cumulative impact analysis.
- **Section 4.0 – Environmental Impact Analysis** describes existing environmental conditions, impacts of the proposed Project and options considered, and mitigation measures, and evaluates cumulative impacts.
- **Section 5.0 – Project Alternatives Analysis** describes the alternatives screening methodology, alternatives screened from full evaluation, and alternatives carried forward for analysis, and analyzes impacts of each alternative carried forward.
- **Section 6.0 – Other Required CEQA Sections and Environmentally Superior Alternative Discussion** addresses other required CEQA elements, including significant and irreversible environmental and growth-inducing impacts, comparison of the proposed Project and alternatives, and discussion of an environmentally superior alternative.
- **Section 7.0 – Other Commission Considerations** presents information relevant to the Commission's consideration of the Project that are in addition to the environmental review required pursuant to CEQA. These include: (1) climate change and sea level rise (SLR) considerations; (2) commercial fishing (socioeconomics); (3) environmental justice; and (4) long-term maintenance costs and funding associated with the selected Project. Other considerations may also be addressed in the staff report presented at the time of the Commission's consideration of the proposed Project.
- **Section 8.0 – Report Preparation Sources and References** lists the persons involved in preparation of the EIR and the reference materials used.

The EIR also contains the following Appendices:

- **Appendix A** – Public Scoping Documents
- **Appendix B** – Federal and State Regulations
- **Appendix C** – Project Distribution List
- **Appendix D** – Biological Studies
    - **Appendix D1** – UCSB Characterization of Marine Habitat
    - **Appendix D2** – Rincon Island Causeway Marine Biological Survey Report (Padre)
    - **Appendix D3** – Roosting Bird Survey Report (Padre)
    - **Appendix D4** – Terrestrial and Marine Special Status Species Table
    - **Appendix D5** – Plant List
- **Appendix E** – Assessment Reports
    - **Appendix E1** – Rincon Island Assessment Report (Padre)
    - **Appendix E2** – Onshore Facility Assessment Report (Padre)
- **Appendix F** – Phase 1 Archaeological Report (Padre)
- **Appendix G** – Coastal Processes Studies (Griggs)
    - **Appendix G1** – Potential Causeway Alternative Decommissioning Impacts
    - **Appendix G2** – Evaluation of Effects and Effectiveness of Three Different Treatments of SCC Parcel at Punta Gorda
- **Appendix H** – Surf Study (Coastal Frontiers)
- **Appendix I** – Air Quality and GHG Calculations
- **Appendix J** – Noise and Vibration Calculations
- **Appendix K** – Mitigation Monitoring Program

2.0 PROJECT DESCRIPTION

2.1 PROJECT SUMMARY

The proposed Rincon Phase 2 Decommissioning Project (Project) would include removal of Rincon Island's (Rincon Island or Island) remaining surface structures, removal of the Island's well bay concrete deck, remediation of the Island's contaminated soil and interstitial water (water occupying the space between the soil particles, as encountered), and backfill of the Island with clean soil; improvements to the State Coastal Conservancy (SCC) parcel adjacent to the Rincon Island Causeway (causeway) landing (abutment); decommissioning of onshore pipeline connections (OPC) from the causeway abutment to the vault box; and remediation of the Onshore Facility. The proposed Project does not include the removal of Rincon Island or associated causeway structures or any future use of the remaining facilities. Table 2-1 provides a summary of proposed Project activities at each location.

Table 2-1. Summary of Project Decommissioning Tasks

Project Site	Decommissioning Tasks
Rincon Island	• Island Surface Structures Removal ○ Option: Public Facilities Retention • Island Well Bay Concrete Deck and Pavement Removal • Removal of Contaminated Soil (approximately 9,604 cubic yards) and Interstitial Water (as encountered) • Transport of Materials to Offsite Disposal or Recycling Facility • Backfill and Compaction with Clean Soil

SCC Parcel	Improvements to the SCC Parcel by implementing one of the following three options:
	• Option 1:
	  ○ Removal of Non-Native Vegetation
	  ○ Restoration with Native Vegetation (approximately 0.33 acre)
	  ○ Walkway/Pathway Improvements with Crushed Rock
	  ○ Installation of Visitor Amenities, including Seating and Signage
	  ○ Installation of Beach Access Stairway at Eastern End of Parcel
	  ○ Removal of Coastal Hazards, Including Remnant Pipe and Concrete/Rebar, as Appropriate Along the Shoreline

Project Site	Decommissioning Tasks
	• Option 2: All Components of Option 1, Plus Installation of a Cobble Back Berm • Option 3: All Components of Option 1, Plus Installation of Riprap Along Parcel Frontage
Onshore Pipeline Connections within the Project Site	• Cleaning and Flushing of the 6-inch-diameter Oil and Gas Pipelines • Filling the Pipelines with Cement Slurry from the Causeway Abutment to the Southern End of the Casing • Removing Pipelines from 30-inch Casing North to the Concrete Vault • Filling 30-inch Casing with Cement Slurry • Transport of Materials to Offsite Disposal or Recycling Facility
Onshore Facility	• Installation of 750-foot-long Steel Sheet Pile Wall Between the Onshore Facility Project Site and Upgradient Coast Ranch Parcel (as necessary) • Remediation of Petroleum Hydrocarbon-contaminated Soil and Groundwater (by one of the following methods): o Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation o Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation o Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation o Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation o Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation • Transport of Contaminated Materials to Offsite Disposal or Recycling Facility (as applicable) • Surface Grade Backfilled with Clean Imported Soil (as applicable) • Final Site Restoration and Revegetation (as applicable)

2.2 CURRENT (BASELINE) SITE CONDITIONS

The Project sites are located along the coastline of unincorporated Ventura County, within an area that has been historically developed by a combination of both residential communities and industrial oil and gas production facilities.

The unique geologic features in this area have been documented to contain naturally occurring petroleum hydrocarbon seeps both onshore and offshore, often referred to as tar seeps or oil seeps (further addressed in Section 4.8, Hazards and Hazardous Materials). The Project sites include (but are not limited to) the former oil and gas production facilities of Rincon Island offshore of Mussel Shoals, and Rincon Onshore Facility located approximately 1.3 miles to the east. All wells associated with both facilities have now been permanently plugged and abandoned, and all equipment and major structures have been removed. The Project area is bisected by U.S. Highway 101 and Pacific Coast Highway/State Route 1 (PCH/SR1), that highly influence the existing environmental conditions in the region. A summary of the existing setting at each Project site is provided below.

2.2.1 Rincon Island

Rincon Island is an approximately 2-acre artificial island that was constructed for oil and gas production and processing. The core of Rincon Island is made up of 160,000 cubic yards of medium to fine-grain sand that was obtained from the bluff behind Punta Gorda, north of the site (ASCE 1959). This core is surrounded by 72,600 cubic yards of locally sourced riprap (boulders and gravel) (Figure 2-1).

Additionally, the seaside exterior is reinforced with approximately 1,100 concrete tetrapods, each weighing approximately 31 tons (Figure 2-2). Each tetrapod has four, 6-foot-long concrete legs that are greater than 2 feet in diameter at the end. The working surface of Rincon Island is approximately 1.2 acres, which is paved with approximately 8 to 14 inches of concrete and asphalt. Prior to completion of Phase 1, the working area of the Island contained an 88-slot well bay, which was a delineated area at the southern end of the Island that contained the wellheads and instrumentation, except for one oil well located in a concrete cellar east of the well bay.

Figure 2-1. Cross-Section of Rincon Island

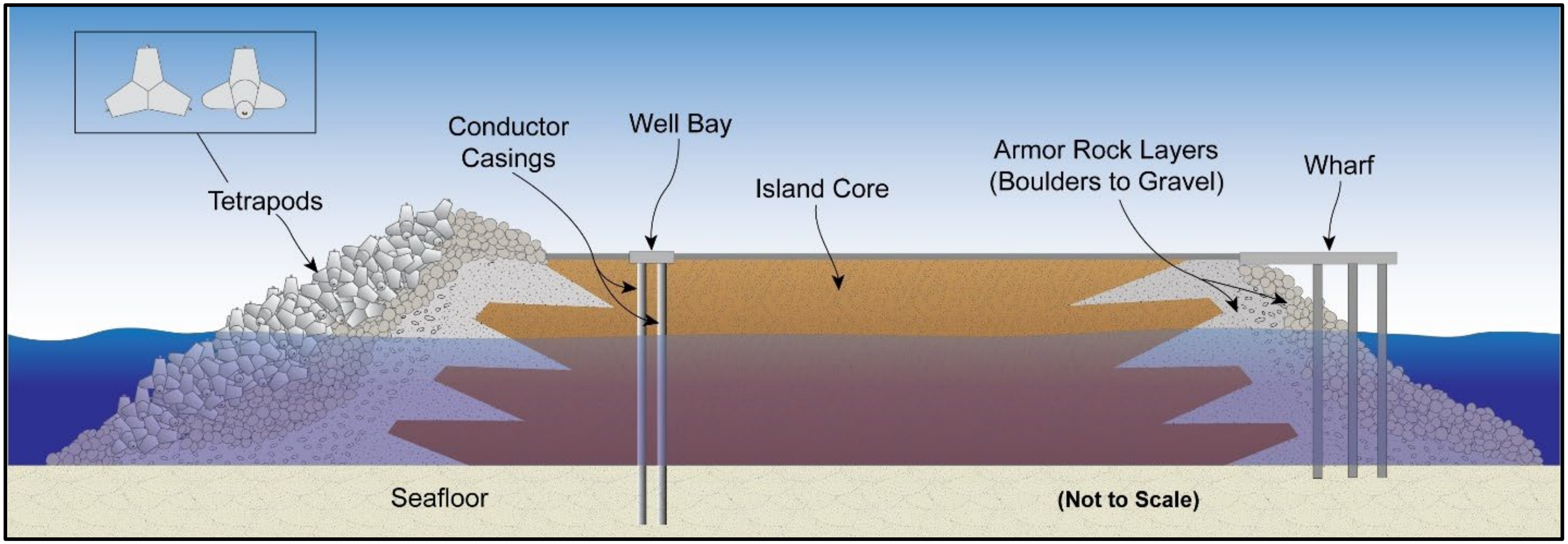
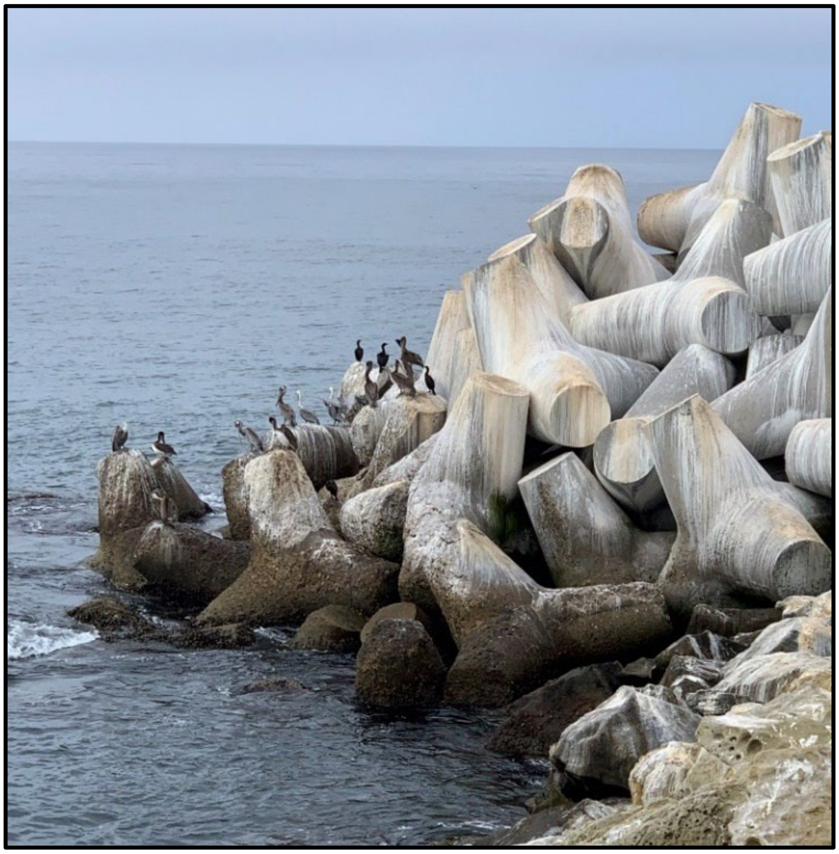


Figure 2-2. Concrete Tetrapods



Additionally, the Island contained aboveground storage tanks, sumps, pumps, gas scrubbers, a gas compressor, flare, pipeline systems, electrical supports, and various office and support building space. As part of the Phase 1 well plugging and abandonment activities, the oil production and injection wells were permanently abandoned, and the oil, gas, and water processing and storage facilities were removed. Following removal of the oil production and processing facilities, the working area of the Island was sealed with concrete and asphalt. All equipment and major structures were also removed from the Island, and it is currently in "caretaker" status, meaning it does not require a full-time operator for safety or pollution prevention. The layout of the Rincon Island facility following completion of Phase 1 activities is shown in Figure 2-3 and Figures 2-4a and b.

Figure 2-3. Aerial View of Rincon Island Following Completion of Phase 1 (2021)

Figure 2-4. Island Surface Following Completion of Phase 1 (2021)

Photo 2-4a	Photo 2-4b
	
Island Interior Looking North Towards Causeway Entrance	**Asphalt Leading to Concrete Well Bay Following Completion of Well Plugging and Abandonment and Installation of Concrete (Looking South Towards Back of Island Riprap)**

2.2.2 Rincon Island Causeway and Abutment

The causeway is a single lane, 2,732-foot-long wood and steel bridge that provides access to Rincon Island from the mainland coast at Punta Gorda (near Mussel Shoals) in northern Ventura County (Figure 2-5). The causeway provides vehicle, equipment, and personnel access to the Island. The causeway underwent repairs during Phase 1 activities to restore its load capacity to 65,000 pounds.

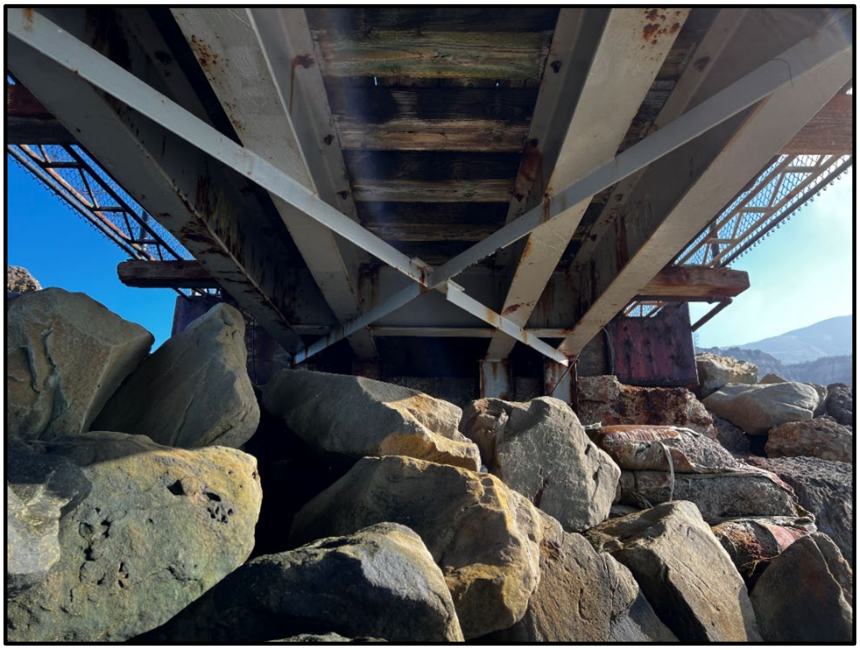
Prior to the completion of Phase 1 activities, there were oil and gas pipelines that ran along the causeway. The gas pipeline had been out of service since 2009 because of considerable corrosion. The oil pipeline was in serviceable condition during the completion of Phase 1 activities. The sections of both pipelines that traversed the causeway have been removed, and the pipelines are terminated at the abutment located on the landward side of the causeway. Utility pipelines to provide water and electricity service to the Island are still present along the underside of the causeway. A locked entry fence and gate with barbed wire currently prohibits public access to the causeway and Island.

2.2.2.1 Rincon Island Causeway Abutment

The landward side of the causeway is connected to the shoreline by a steel and concrete abutment, which acts as the existing support structure for the causeway and is surrounded by a riprap revetment (Figure 2-6).

Figure 2-5. Rincon Island Causeway

Figure 2-6. Rincon Island Causeway Abutment



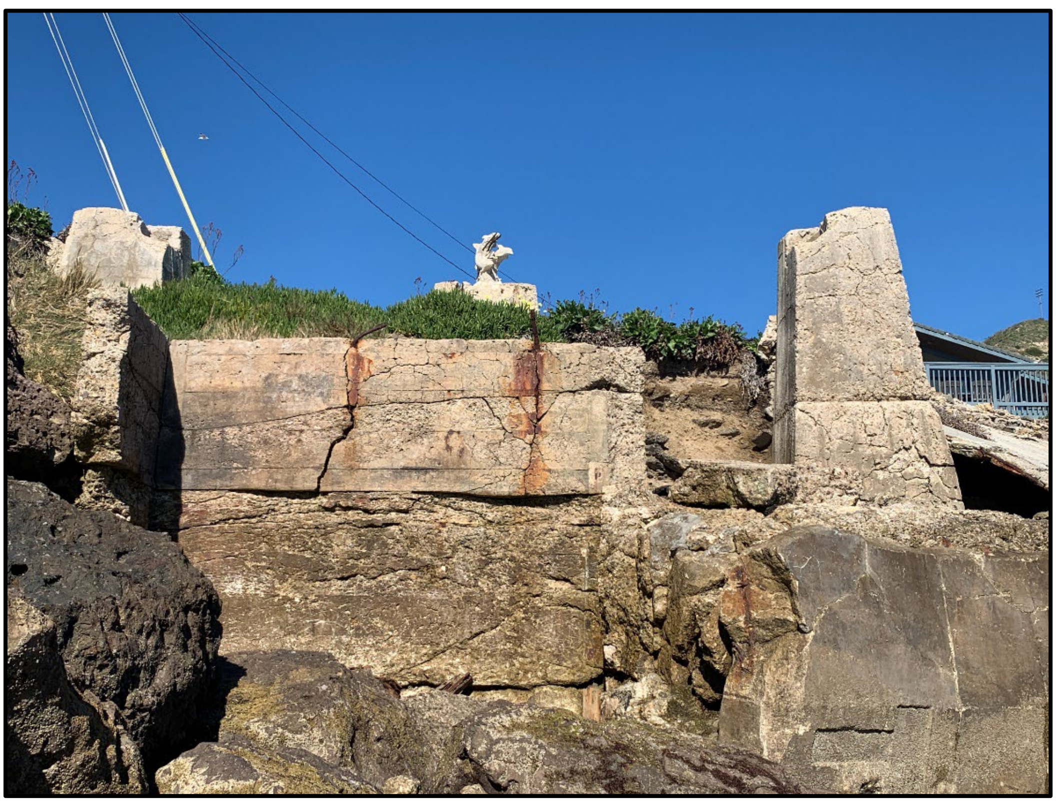
2.2.3 State Coastal Conservancy Parcel

The SCC Parcel is identified as Ventura County Assessor's Parcel Number (APN) 060-0-090-425, south of the Mussel Shoals community adjacent to Breakers Way, and east of the causeway abutment (Figure 2-7). The gross area is approximately 36,105 square feet (0.83 acre). The parcel is included within Lot 67, however the adjacent parcel within the lot (APN 060-0-090-125) is not included in the SCC Parcel improvement(s) area. Approximately 60 percent of the parcel is above the mean high-tide line. The back portion of the parcel is currently occupied by interspersed native and non-native ground cover vegetation, informal walking paths, and a wooden bench (added by residents). For information related to recreational use and access at the SCC Parcel, please see Section 4.12 (Recreation).

Several concrete blocks and foundations (unrelated to former Rincon Island operations) are located along the eastern portion of the shoreline (Figure 2-8), some of which contain remnant rebar that has rusted and become a coastal hazard during winter conditions when exposed. In this same area, the shoreline is partially bound by riprap. This riprap historically extended along the entire SCC Parcel shoreline following installation of the causeway in 1959 (evident in 1971 aerial photography), but has been pulled offshore by surf and swell conditions since that time, leaving an approximately 115-foot gap along the western shoreline (see Figures 2-7 and 2-9).

Figure 2-7. SCC Parcel Looking Southeast Towards Breakers Way

Figure 2-8. Existing Concrete Structures Along SCC Parcel Shoreline

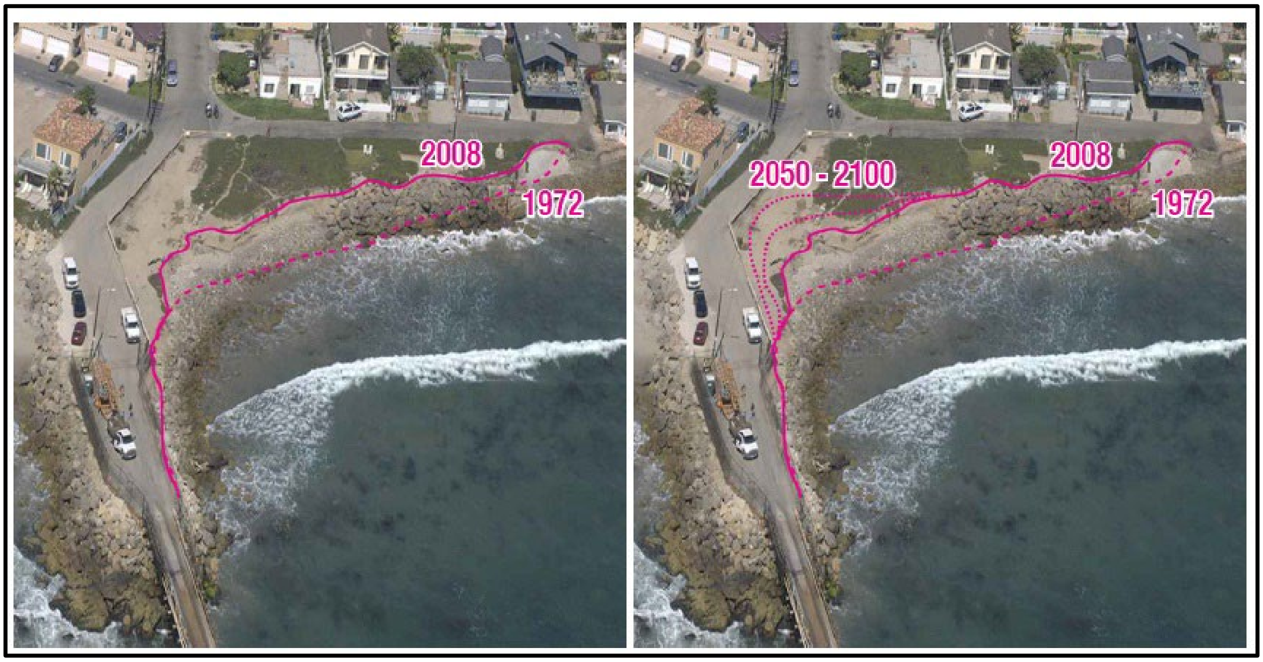


The back portion of the SCC Parcel transitions from a low bluff to the beach and intertidal area. During summer months the parcel usually experiences onshore sand accumulation resulting in a more gradual transition between bluff and beach, and typically less than a 3-foot elevation change between the two. However, during winter months when sand levels are typically lowest, the beach area can be up to 8 feet lower than the bluff and is very narrow with mostly cobble (see Figure 2-9, taken in February 2024). The parcel also experiences ongoing erosion from coastal processes, which are gradually cutting away at the backside of the parcel and encroaching on the access roads to Rincon Island and the beach.

Figure 2-9. SCC Parcel From Above (February 2024)
(Note: Beach Erosion Back to the West Along Causeway Entrance Road)

Documentation provided in a study done by Everest (2014) for SCC shows that coastal erosion in this area has been significant (resulting in a change in beach elevation from 6 to10 feet) and will continue northward into the back of the SCC Parcel by the year 2100 if left unprotected (Figure 2-10), which could eliminate public access points on the SCC Parcel, and threaten adjacent access roads and private property, including the access road to Rincon Island. The western and eastern extents of the SCC Parcel beach cove are already supported by riprap shoreline protection.

Figure 2-10. Everest Shoreline Erosion Modeling



2008 Scenario **2100 Scenario**

2.2.4 Onshore Pipeline Connections

Oil and gas pipelines extend from the abutment on the landward side of the causeway and under U.S. Highway 101 and the Union Pacific Railroad (UPRR) right-of-way. These pipelines terminate within a vault box (encompassing an area of approximately 22 feet by 15 feet) on the northeast side of the railroad right-of-way (Figures 1-2 and 2-11) within Ventura County jurisdiction. Although CSLC jurisdiction does not extend past the causeway abutment in the area near the causeway entrance, the decommissioning of the pipelines from the abutment to the vault box is included as part of Phase 2 (with necessary approvals from Ventura County and California Coastal Commission). From the vault box, the pipelines then extend up the hill to the privately owned DCOR, LLC oil and gas processing facility (not part of the proposed Project) and finally traverse back to and terminate at the Onshore Facility.

Figure 2-11. Onshore Pipeline Connections Vault Box Area North of U.S. Highway 101

2.2.5 Onshore Facility

The Onshore Facility is a 6.01-acre parcel owned by the State. All buildings, equipment, and materials were previously removed from the Onshore Facility site, and the site surface currently consists of bare dirt and the recycled asphalt aggregate base. Initial site assessments were performed at the Onshore Facility (Appendix E2, Padre 2021b), including groundwater and soil sampling and monitoring. The laboratory analytical results indicate the presence of petroleum hydrocarbons at concentrations greater than environmental screening levels (ESLs) in soil and groundwater resulting from historical petroleum hydrocarbon production and processing activities performed at and in the vicinity of the Onshore Facility (Waterboards 2021). A representative photograph of the Onshore Facility is included as Figure 2-12.

Figure 2-12. Onshore Facility

2.3 PROJECT DECOMMISSIONING METHODOLOGY

The proposed Project includes retention of Rincon Island and the causeway but removal of the Rincon Island surface structures (three remaining buildings), well bay concrete deck, pavement, and contaminated soil with interstitial water (water that occupies the spaces between sediment particles), which would then be backfilled with clean soil as further discussed in Section 2.3.1. Removal of non-native vegetation, public access improvements, native plant revegetation, removal of coastal hazards (as appropriate), and additional erosion protection (if selected) have been proposed on the SCC Parcel as further discussed in Section 2.3.2. The OPC would be decommissioned as further discussed in Section 2.3.3, and contaminated soil and groundwater at the Onshore Facility would be remediated as discussed in Section 2.3.4. The proposed Project does not include any modifications to the causeway abutment and riprap revetment or improvements or repairs to the existing causeway; however, routine inspection and maintenance on the causeway (as is done currently on an as-needed basis) would still occur.

2.3.1 Rincon Island

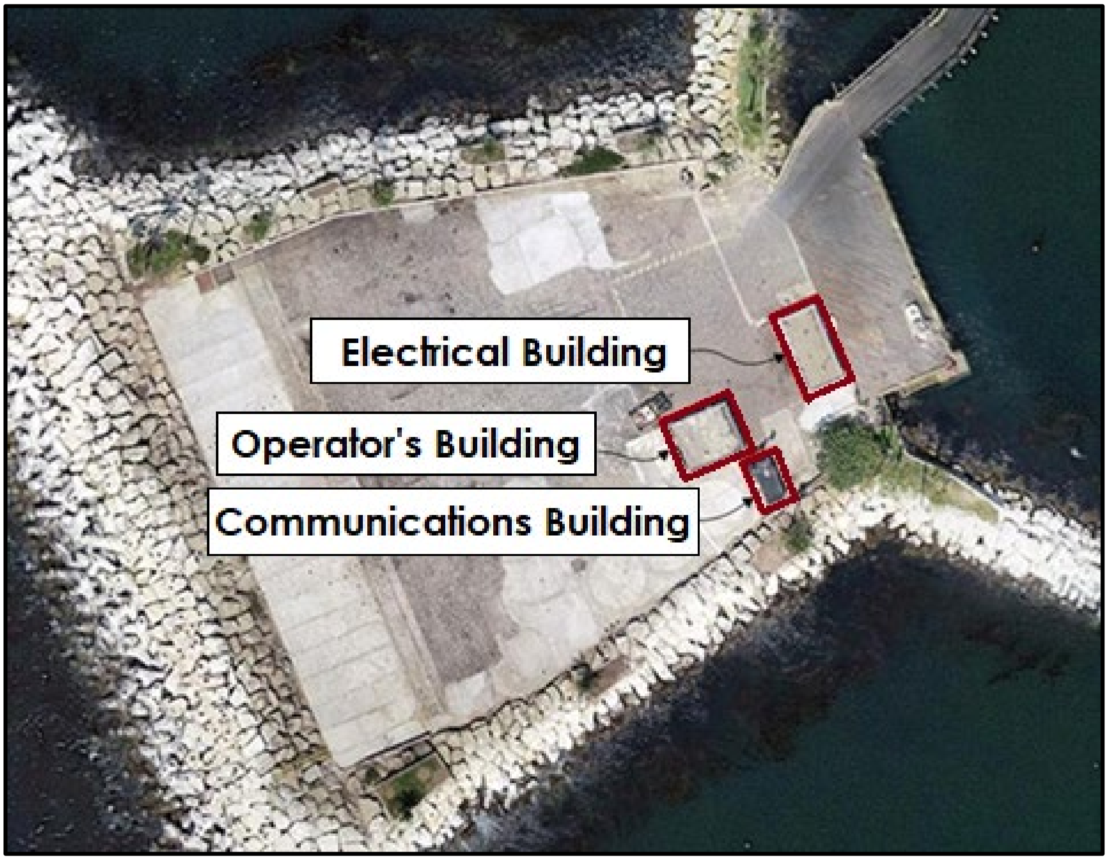
The proposed Project includes retention of Rincon Island but removal of the remaining surface structures, Island well bay concrete deck and pavement, and contaminated soil mixed with interstitial water. For all Project activities, equipment and materials would be transported to and from the Island via the causeway. Project activities on Rincon Island are anticipated to take approximately 15 months to complete. A summary of these activities and decommissioning methodologies is provided below.

2.3.1.1 Remove Rincon Island Surface Structures

Three buildings currently remain on Rincon Island: the Operator's Building, Electrical Building, and Communications Building. These buildings and their foundations would be removed as part of demolition activities. The location of each building is shown below in Figure 2-13. Details of each building are listed below:

- The Operator's Building is a concrete masonry unit (CMU) building that includes an office, tool room, storage room, restroom, and a locker room. An underground septic tank associated with the Operator's Building would also be removed (the Public Facilities Option, discussed in Section 2.3.1.1 below, considers retention of the septic tank and water lines).
- The Electrical Building is a CMU building that contains electrical equipment such as transformers, switchgear, conduits, and cables. Some of the electrical equipment is owned by Southern California Edison (SCE).
- The Communications Building is a prefabricated, trailer-mounted building containing cellular communications equipment owned by Sprint/T-Mobile, whose lease is expired, and who will remove their equipment. A cell phone antenna tower is attached to the north wall of the Communications Building. Both the tower and the building would be removed.

Figure 2-13. Rincon Island Surface Structures



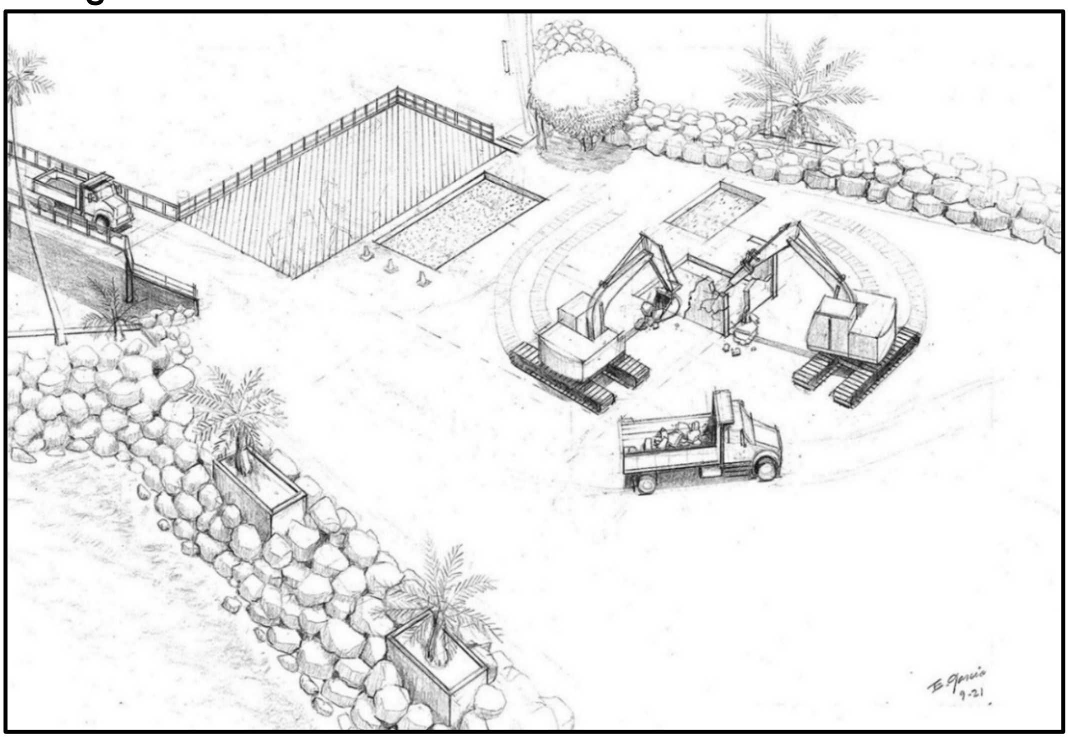
Decommissioning Methods. The Operator's Building, including the foundation and associated underground septic tank, would be demolished using excavators equipped with hydraulic claw, cutter, and breaker attachments, as well as buckets for moving material (Figure 2-14). Prior to demolition, any remaining underground septic tank waste would be pumped out, and the tank removal would be coordinated through the Ventura County Environmental Health Division (VCEHD), Technical Services Department (County of Ventura Resource Management Agency 2022). Front-end loaders would be used to assist with materials handling. The debris would be loaded onto trucks, covered, and transported offsite for disposal.

The electrical equipment within the Electrical Building would be disconnected by electricians, and SCE would be provided access to remove SCE-owned equipment. Electrical equipment would be loaded onto trucks using truck-mounted cranes, forklifts, or similar lifting equipment and transported, via the causeway, offsite for recycling or disposal. Once the electrical equipment has been removed, the Electrical Building and its foundation would be demolished using excavators and front-end loaders, and the debris would be loaded onto trucks, covered, and transported offsite for disposal.

A Driltek Inc.-prepared report (Driltek 2020) indicates that both the Operator's Building and the Electrical Building have non-friable asbestos containing material (ACM) in the roofing materials and parapet walls.

Assumptions for decommissioning work include the understanding that the company that owns and operates the cell phone tower and Communications Building (Sprint/T-Mobile) would also take down and remove their equipment. The cell phone tower would most likely be disassembled and loaded onto a truck or trailer using a truck-mounted crane, and a truck would be used to tow the mobile building.

Figure 2-14. Illustration of Island Surface Structures Demolition



Public Facilities Retention Option

It has been suggested that the existing septic system and water supply on Rincon Island be retained for a public restroom in order to ensure that basic infrastructure to support public facilities reuse of Rincon Island remains in place. The existing restroom is located within the Operator's building, however significant improvements to the existing facilities would need to be made if this restroom were to be used by the public. As such, the existing building would be demolished as part of the Public Facilities Retention Option. However, if approved by the County of Ventura, the septic system infrastructure would remain in place following removal of the existing buildings. The septic system would still need to be pumped clean and inspected to ensure sufficient integrity for future use.

2.3.1.2 Remove Rincon Island Well Bay Concrete Deck and Pavement

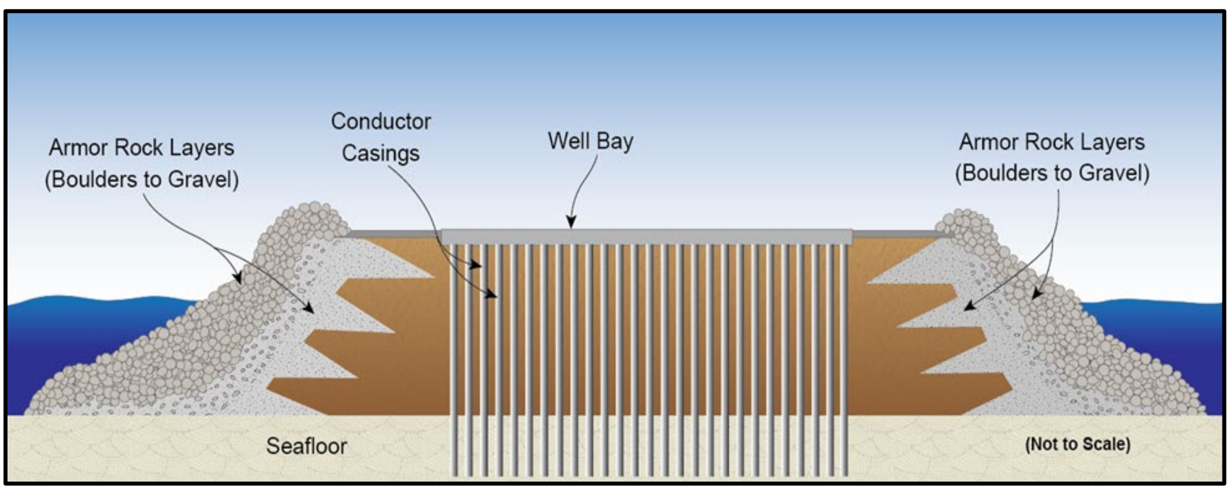
The concrete deck that was constructed over the well bay at the completion of Phase 1 activities would be demolished and removed. This activity would be performed in conjunction with the removal of the Island pavement. The location of the well bay is depicted below in Figure 2-15 and in the cross-section illustration provided in Figure 2-16.

The well bay consists of a 3-inch-thick concrete deck that was constructed over the well bay and the abandoned cement-filled conductors during Phase 1. Remnants of contaminated soil may still remain in areas that were not previously excavated and filled with clean soil. The well bay wall and original deck were removed during Phase 1 activities.

The concrete and steel debris would be transported to an offsite recycling or disposal facility. Any contaminated soil remaining around the conductors would be removed, and verification soil samples would be collected for laboratory analysis to confirm that the soil contamination had been removed to established regulatory clean-up levels. The well conductor casings would remain in place.

Figure 2-15. Rincon Island Well Bay Concrete Deck

Figure 2-16. Rincon Island Cross Section (Illustration)



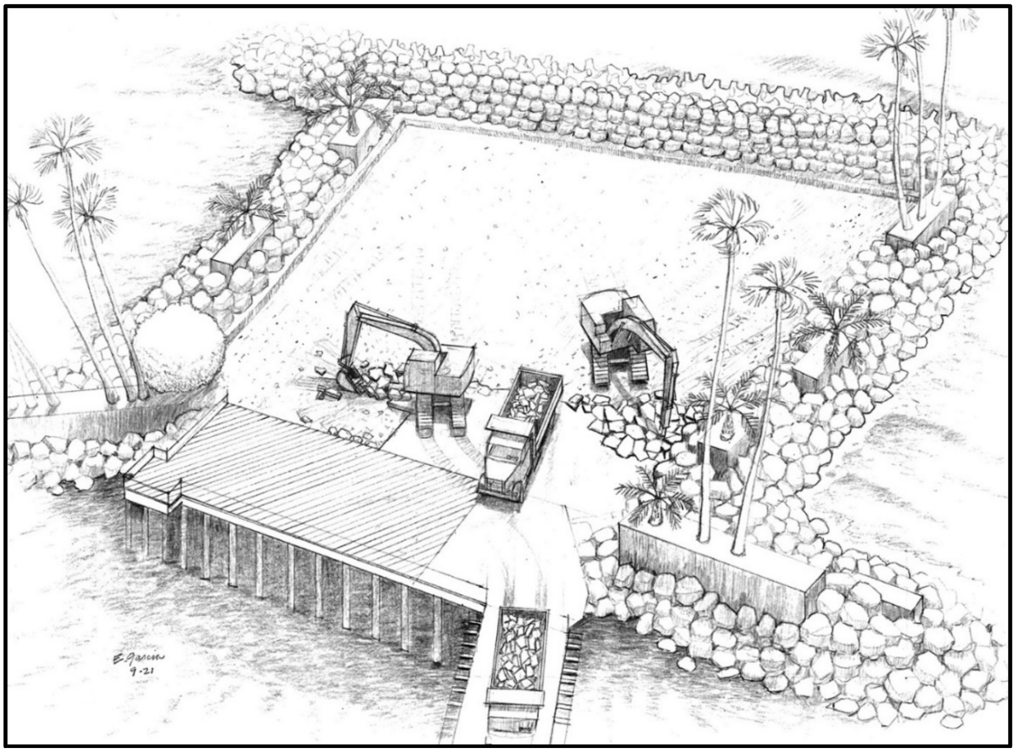
The asphalt pavement over the remainder of the internal Island would also be demolished and removed. This activity would be performed in conjunction with the removal of the concrete deck (Figure 2-17).

Figure 2-17. Rincon Island Asphalt Pavement

Decommissioning Methods. The well bay concrete deck would be demolished using excavators equipped with hydraulic claw, cutter, shear, and breaker attachments, as well as buckets for moving material. A front-end loader may be used to assist with materials handling. The debris would be loaded onto trucks and transported offsite for recycling or disposal. The loads would be covered to ensure reduction of dust and any potential release of contaminants.

The remaining asphalt pavement would be removed using excavators equipped with hydraulic claw, cutter, and breaker attachments, as well as buckets for moving material. Front-end loaders and vacuum trucks, as feasible, would be used to assist with materials handling. The asphalt debris would be loaded onto trucks, covered, and transported over the causeway offsite for recycling or disposal (Figure 2-18).

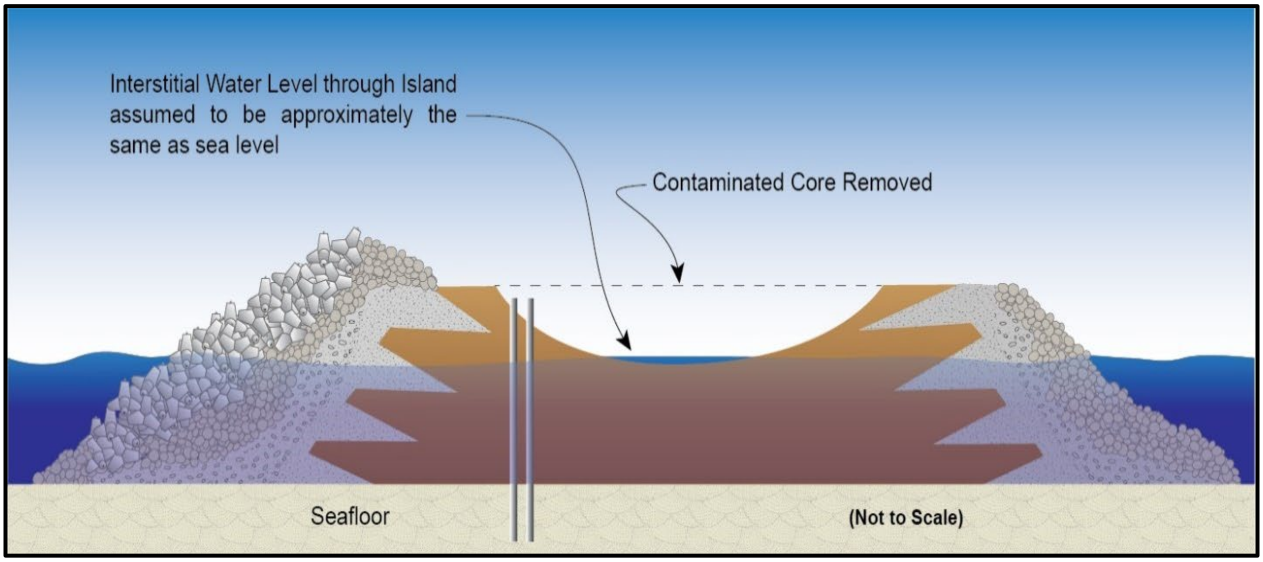
Figure 2-18. Illustration of Island Asphalt Pavement Removal



2.3.1.3 Removal of Contaminated Soil and Backfill with Clean Soil

After the concrete deck and asphalt pavement are removed to facilitate access to the contaminated soil and interstitial water in the Island core (Figure 2-19), the contaminated sand, gravel, and encountered interstitial water would then be removed and transported over the causeway for disposal at approved offsite disposal or recycling facilities (Figure 2-20, see decommissioning methods below). This would include approximately 9,605 cubic yards of existing hydrocarbon-contaminated sand and gravel in the Island's core (including a mix of artificial fill of fine to coarse-grained sand and gravel).

Figure 2-19. Schematic of Contaminated Soil and Interstitial Water Removal



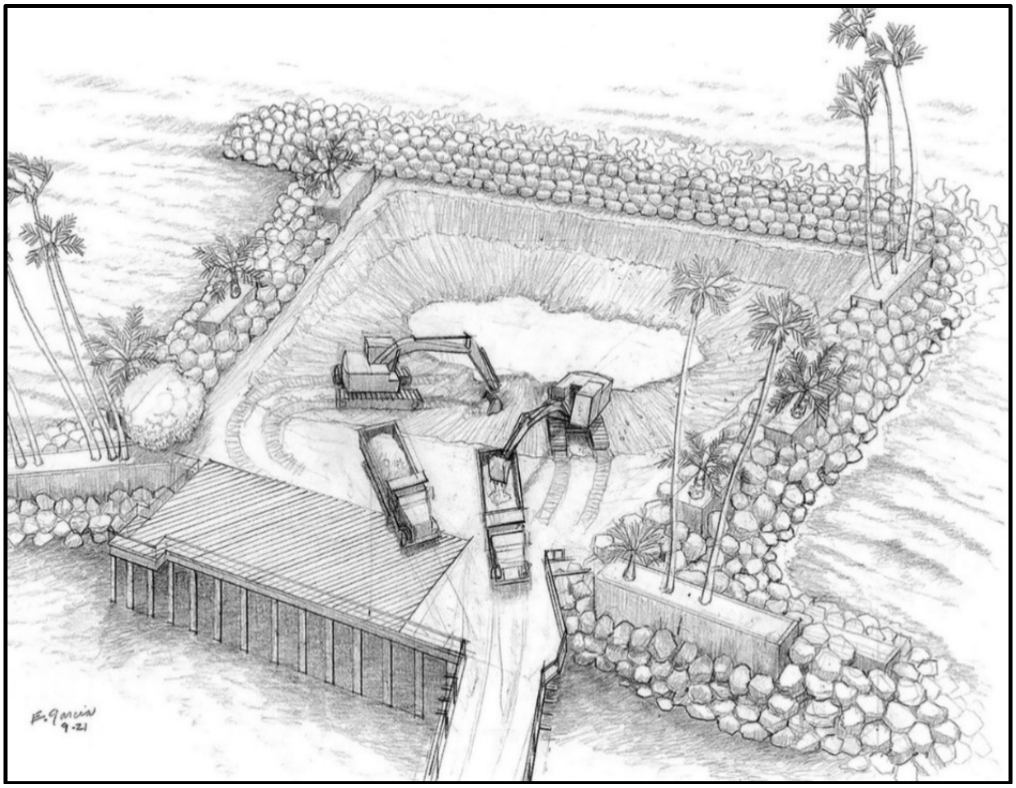
Decommissioning Methods. The petroleum hydrocarbon-contaminated soil would be excavated using standard commercial excavation equipment (e.g., hydraulic excavator, front-end loader) (Figure 2-20) from the Island based on the initial soil assessment results. Removal of interstitial water using absorbent booms and vacuum trucks would be limited to isolated pockets where petroleum hydrocarbons may be observed, as feasible. Excavation of the petroleum hydrocarbon-contaminated soil and interstitial water would continue until the presence of petroleum hydrocarbons in soil is not detected using a field portable handheld photoionization detector, as well as visual and olfactory[4] observations of the interstitial water surface. Verification soil samples would be collected for laboratory analysis to confirm that the soil contamination is removed to the established regulatory clean-up levels.

Petroleum hydrocarbon-contaminated soils would be loaded onto trucks and transported over the causeway to an offsite disposal or recycling facility that accepts non-hazardous petroleum hydrocarbon-contaminated waste, such as Waste Management in Simi Valley (or equivalent). The loads would be covered to ensure reduction of dust and any potential release of contaminants. Due to causeway weight limits, smaller loads may be transported from Rincon Island to the Onshore Facility for staging, and then loaded onto other trucks for subsequent transportation to the landfill in larger loads, resulting in fewer trips. Contaminated interstitial water would be transported offsite for disposal at a

4 Relating to sense of smell

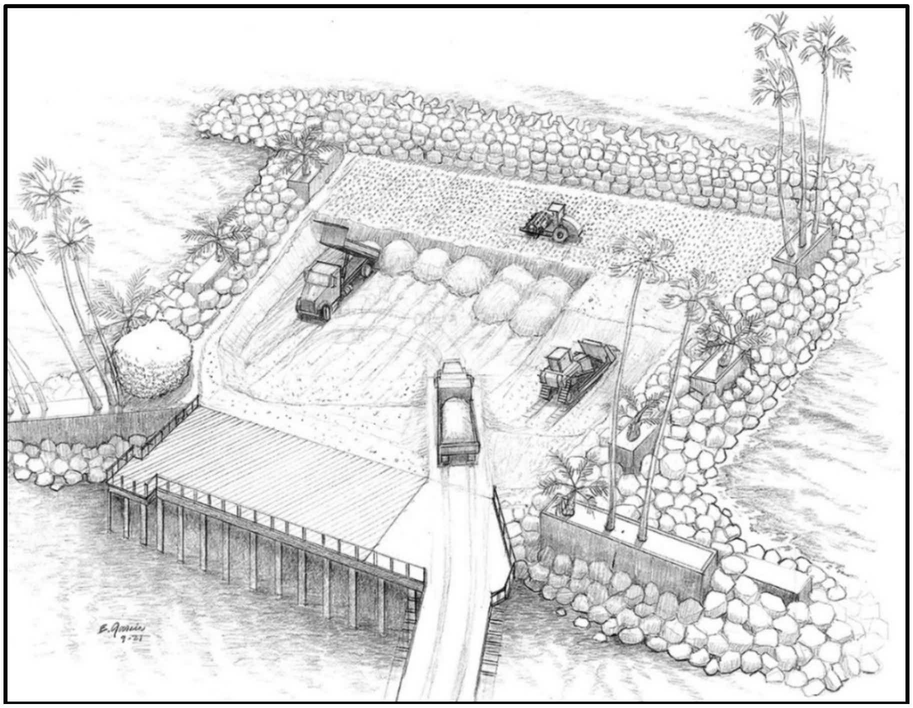
licensed hazardous waste disposal facility, such as World Oil located in South Gate, Los Angeles County (or equivalent).

Figure 2-20. Illustration of Contaminated Soil Removal



Once all contaminated soil has been removed, the excavation would be backfilled and compacted using clean soil (imported from Grimes Rock in Fillmore, or equivalent) (Figure 2-21). Equipment used for backfilling and compaction would include trucks, front end loaders, dozers, and vibratory soil compactors. An alternative for soil debris removal (Offshore Disposal Alternative) is provided in Section 5.0, Project Alternatives Analysis.

Figure 2-21. Illustration of Island Backfill and Compaction



2.3.2 State Coastal Conservancy Parcel Improvements

The proposed SCC Parcel improvements include components intended to enhance public access for recreational opportunities and options to reduce further erosion and prevent potential future loss of existing adjacent access roads. For more information on public uses at the SCC Parcel, please see Section 4.12 (Recreation). The three options included for this analysis are as follows: 1) Native Revegetation and Access Improvements; 2) Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm; and 3) Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage. A discussion of each option is provided below.

2.3.2.1 Option 1: Native Revegetation and Access Improvements

The Native Revegetation and Access Improvements option would include revegetation of the upland portion of the parcel adjacent to Breakers Way and Ocean Avenue on the SCC Parcel (approximately 0.33 acre) with native plants intended to promote biodiversity and reduce erosion. Existing non-native vegetation would be removed by hand and replaced with native plants and a seed mix to create a uniformly covered area as shown in Figure 2-22. Option 1 would require approximately 10 workdays (2 weeks) to complete. Following the initial planting, bi-weekly watering and maintenance for approximately 1 year would be included to ensure the new plantings become established.

Figure 2-22. SCC Parcel Improvements – Option 1: Native Revegetation and Access Improvements

Existing informal walking and access pathways would be improved with crushed rock or other appropriate material to allow for percolation and drainage. Coastal hazards present during winter scour conditions, including exposed rebar within the concrete structure, or segments of pipe would be removed or cut back (as feasible) to prevent re-exposure. A stairway would be installed near the eastern perimeter of the parcel to provide safer access to the beach from the bluff drop-off area. Visitor amenities would be added or improved. The existing wooden bench at the overlook area would be removed, and a concrete or composite bench would be installed. Interpretive signage would be included at the lookout area that would provide the opportunity for public outreach (possible topics include, but are not limited to: tribal cultural history in the area, biological resources along this portion of the coast, or the history of the former Rincon Island facility).

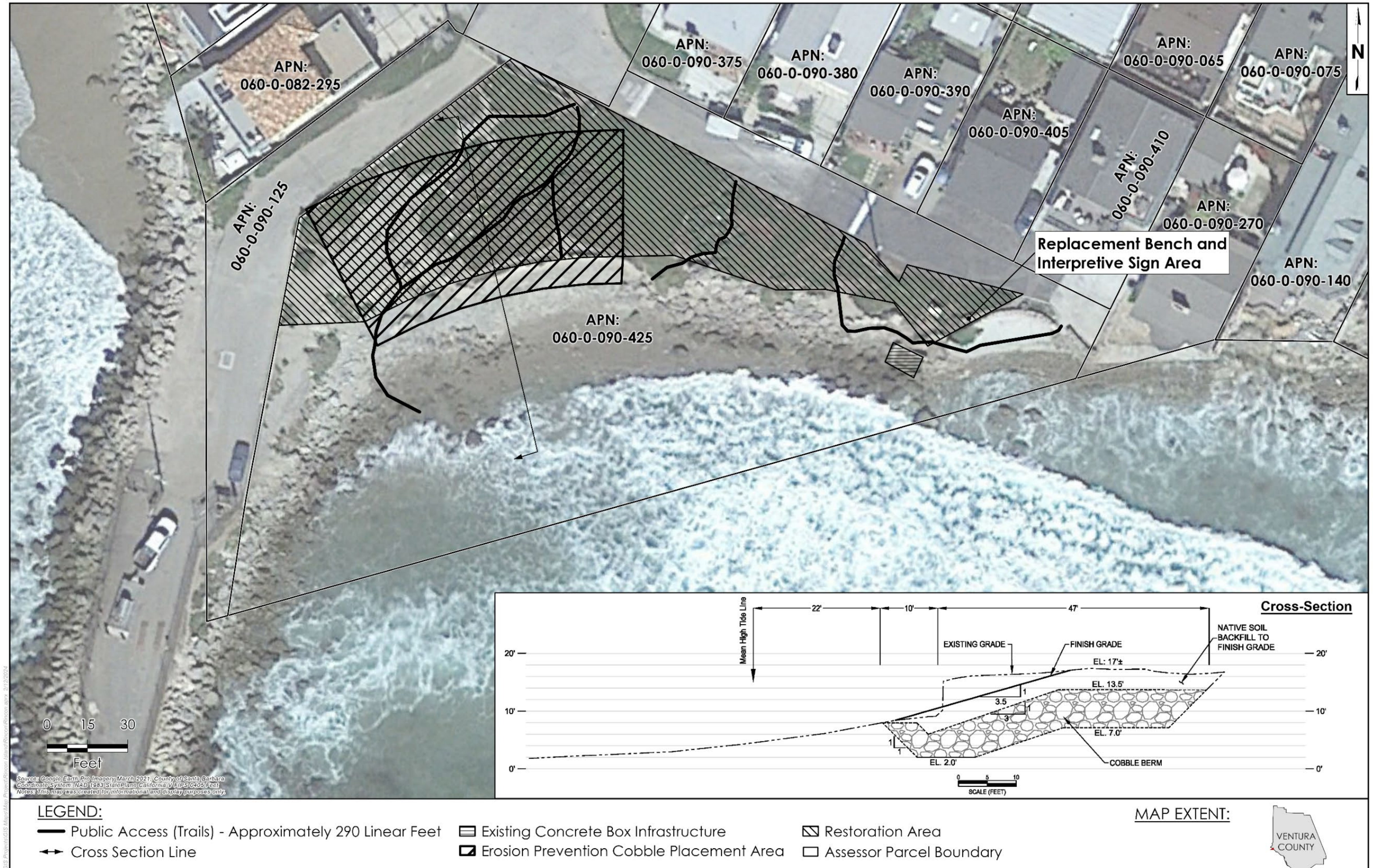
2.3.2.2 Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

This option would take approximately 20 workdays (4 weeks) to complete and would include all of the components described in Option 1: Native Revegetation and Access Improvements (Section 2.3.2.1 above). Additionally, to further stabilize the shoreline from erosion and to maintain access points on the parcel as well as the integrity of the causeway entrance and access roadway, this option would include installation of a cobble back berm to reinforce the existing SCC Parcel area and slow erosional processes. A cobble back berm is a type of nature-based solution that can provide protection against coastal processes and climate change impacts, such as sea level rise and storm events. Compared to hard armoring strategies, such as sea walls or riprap, a cobble back berm is a softer strategy that can reduce the reflection of wave energy that causes erosion of adjacent areas[5]. A cobble back berm can also exhibit more natural, dynamic behavior than hard armoring strategies, as the cobble will move and adjust in response to changing conditions (storms, tide), unlike a seawall which is a static structure.

Following removal of the non-native vegetation, a portion of the upland area of the parcel would be excavated (approximately 3,800 cubic yards) and cobble fill installed to provide increased stabilization (Figure 2-23).

5 https://slcprdwordpressstorage.blob.core.windows.net/wordpressdata/2023/12/Shoreline-Adaptation-Report.pdf

Figure 2-23. Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm



The cobble would be sized equivalent to that existing naturally in this area (approximately 5 inches in diameter). Following placement of the cobble, the upland area would be backfilled with approximately 3.5 feet of the original stockpiled native soil and revegetated with native plants as described in Section 2.3.2.1. The remainder of the installed cobble would transition down onto the beach and terminate within the existing gap in the riprap armament that exists on both sides of the shoreline within the parcel to provide additional stability. The profile of the cobble would mimic a natural grade from the upland vegetated portion of the parcel down to the beach and intertidal area (Figure 2-23 cross-section). Excess soil would be balanced onsite as feasible, but as a worst-case scenario, 2,500 cubic yards would need to be trucked away for disposal.

Although not identical due to site differences, the preliminary design premise is taken from a successful project (Surfers Point, Coastal Development Permit Amendment 4-05-148-A1 and A-4-SBV-06-037-A1) in Ventura County (CCC 2020). Approximately 2,500 cubic yards (4,300 tons) of cobble would be required to complete the cobble back berm and fill in the existing gap area, for a linear distance of approximately 50 feet (of which approximately 40 feet would be covered with native soil and revegetated). This cobble would be imported to the site using dump trucks and placed with two excavators and a loader. Equipment access is from the causeway entrance staging area east along an existing informal pathway down to the beach (Figure 2-28).

As shown in Figure 2-23, the added cobble would be primarily subsurface. Visually, this option would provide a gentler slope from the upland back berm to the beach. An approximately 10-foot-wide area of cobble located within the riprap armament gap would be visible but is designed to match the natural character of the site. The cobble back berm option is a type of nature-based solution that can provide multiple benefits, including protection against erosion and sand retention.

Following the initial planting, bi-weekly watering and maintenance for approximately 1 year would be included to ensure the new plantings become established.

2.3.2.3 Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

This option would take approximately 25 workdays (5 weeks) to complete and would include all of the components described in Option 1: Native Revegetation and Access Improvements (Section 2.3.2.1 above). Instead of placement of a cobble back berm to reduce erosion as described in Option 2 (Section 2.3.2.2), this option would include replacement of riprap that was formerly present within this section of coastline (Figure 2-24) to provide protection from coastal erosion that has the potential to reduce public access points on the SCC Parcel and threaten homes and access roadways within the Mussel Shoals community, including the access road to Rincon Island. Riprap is a hard armoring protective approach that may have adverse effects on the shoreline and surrounding lands and can require high maintenance and repair costs. Softer, nature-based solutions are generally considered a preferred approach, but may not be appropriate in situations where critical infrastructure is at risk or may be impaired due to erosion (CSLC 2023).

This option would add riprap to the currently unarmored section of beach (an area approximately 115 feet [35 meters] in length). Approximately 360 cubic yards of riprap (chosen to match the size of the riprap that currently exists onsite) would be required to complete the shoreline armoring in this area. A small gap would be retained along the western edge to facilitate beach access.

The riprap would be hauled from a quarry in Ventura County to the SCC Parcel area in covered dump trucks and staged within the vegetated area between the beach and Breakers Way. Under this preliminary design, approximately 36 truckloads would be required. A small crane with a rock grapple and spider excavator would be utilized to place the riprap onto this section of beach. Equipment access to the beach would be from the causeway entrance staging area east along an existing informal pathway down to the beach (Figure 2-28). The riprap configuration would be placed to match the contours of the existing riprap on either side. A survey would be required for accurate design and volume calculations; however, it is assumed that a maximum depth of cover would be 3 feet at the crown continuing in an even slope down to the waterside toe.

Figure 2-24. SCC Parcel – Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

Visually, Option 3 would be very similar to Option 1, but with the addition of the new riprap. Approximately 25 workdays (5 weeks) of construction would be required to complete Option 3. Following the initial planting, bi-weekly watering and maintenance for approximately 1 year would be included to ensure the new plantings become established.

2.3.3 Onshore Pipeline Connection Decommissioning

The existing 6-inch-diameter oil pipeline and 6-inch-diameter gas pipeline, from their terminations at the causeway abutment to the vault box located on the northeast side of the Union Pacific Railroad right-of-way (herein referred to as the Onshore Pipeline Connection or "OPC"), would be decommissioned (Figure 2-25). This activity would take approximately 29 workdays (6 weeks) to complete, 10 workdays (2 weeks) of which would include activities within the Mussel Shoals community for pipeline flushing activities.

Figure 2-25. Onshore Pipeline Connections

The portions of the 6-inch-diameter oil pipeline and the 6-inch-diameter gas pipeline that previously traversed the causeway were removed during Phase 1, and the pipelines are currently terminated with caps at the abutment. Both pipelines proceed north from the abutment under Ocean Avenue, then cross underneath Highway 101 and the adjacent railroad track to an underground concrete vault located on the north side of the railroad track. Both pipelines are installed within a 30-inch-diameter steel pipe casing that passes beneath the freeway and the railroad. The oil pipeline terminates at the concrete vault where it formerly connected to a separately owned oil pipeline. The gas pipeline continues north and east of the vault, connecting to the nearby privately owned DCOR oil and gas processing facility, as well as the Onshore Facility. The pipelines terminating at the Onshore Facility were capped, and the remainder of the pipelines on the Onshore Facility were removed during Phase 1.

Decommissioning Methods. The first step in the decommissioning process for the onshore pipelines is to pig and flush the pipelines. Spherical or bullet-shaped foam “pigs” along with water and cleaning agents would be inserted into each pipeline and pulled from one end to the other with pumped water or compressed air by vacuum. Water samples would be obtained and sent to a state-certified laboratory to ensure the total petroleum hydrocarbon (TPH) levels in each pipeline are less than 15 parts per million (ppm). Additional pigging and flushing runs (estimated to include a total of three flushes) would be performed until test results indicate that the TPH concentration within each pipeline is less than 15 ppm. Wastewater generated by pigging and flushing would be collected directly into vacuum trucks or temporary storage tanks and transported offsite.

Decommissioning of the pipelines would include cleaning and flushing the pipelines from the abutment to the concrete vault to remove any potential contaminants, filling the pipelines with cement slurry from the abutment to the southern end of the casing, removing the pipelines from the 30-inch-diameter casing north to the concrete vault, and then filling the casing with cement slurry. The decommissioning of the concrete vault and the gas pipeline that continues north of the vault are not part of the proposed Project.

Specifically, the ends of the casing would be excavated, and the pipelines would be cut on each end of the casing and pulled out from the casing. The pipelines would also be excavated and removed from the northern end of the casing to the outer wall of the concrete vault. Removed pipeline sections would be cut into pieces, loaded onto trucks, and transported to a disposal facility. This removal methodology is based on access to the southwest end of the casing beneath the freeway and railroad from Ocean Avenue and the assumption that the northern end of the casing would be accessed at the vault box or somewhere near the vault box and the railroad right-of-way (Figure 2-29). Access to the southwest end of the casing at Ocean Avenue would be required for approximately 10 workdays (2 weeks). The only exception to pipeline removal includes abandonment in place of a portion of the cleaned, flushed, and cemented pipelines under Ocean Avenue from the causeway abutment to the southwest side of U.S. Highway 101. These sections would not be removed, as that would result in closure of this critical public road for residential and beach access.

Cement slurry would be either mixed onsite or pre-mixed and trucked to the site in cement trucks. A trailer mounted concrete pump would be used to pump the cement into the pipelines and casing through hoses attached to the temporary flanges. The cement slurry would be allowed to cure, then the temporary flanges would be cut off and half-inch-thick steel plates would be welded onto the pipeline and casing ends to complete the pipeline decommissioning.

The excavations would be backfilled and compacted using native soils where feasible, supplemented with imported fill if required. Pavement would be repaired, and the worksite would be restored to its original condition.

Anticipated equipment includes excavators equipped with buckets, hydraulic grapple, shear and roller compactor attachments, front-end loaders, vacuum trucks, cement trucks, cement mixer, temporary tanks, water pump, air compressor, cement pump, welding machine, temporary piping, pig launchers and pig receivers. Temporary shoring and traffic control measures on Ocean Avenue or along the UPRR frontage road may be required depending on the location and depth of burial at the casing ends.

2.3.4 Onshore Facility Remediation

Soil assessment activities completed at the Onshore Facility (Appendix E2) included the collection of 78 soil samples for chemical analysis, at depths of 3 to 30 feet below ground surface (bgs). The laboratory analytical results indicated the presence of TPH(d) in the diesel range (C13-C22), the primary constituent of concern, in 25 soil samples. One soil sample contained TPH(d) (C13-C22) concentrations in excess of the Leaching to Groundwater: Non-Drinking Water ESL (7,284 milligrams/kilograms [mg/kg]); five soil samples contained TPH(d)

(C13-C22) concentrations in excess of the Commercial/Industrial ESL (1,219 mg/kg); and six soil samples contained TPH(d) (C13-C22) concentrations in excess of the Residential Shallow Soil Exposure ESL (255 mg/kg).

Groundwater assessment activities completed at the Onshore Facility included the collection of ten groundwater samples for chemical analysis. The laboratory analytical results indicated six groundwater samples contained TPH(d) (C13-C22) concentrations ranging from 690 µg/l to 3,500 µg/l, which exceed the Freshwater Eco-Toxicity ESL (640 µg/l) and the Saltwater Eco-Toxicity ESL (640 µg/l).

Groundwater assessment activities completed at the adjacent Coast Ranch property located upgradient from the Project included the collection of groundwater samples from 12 discrete locations (Padre 2022). The laboratory analytical results for the 12 groundwater samples indicated TPH(g) in the gasoline range (C4-C12) in eight locations at concentrations ranging from 39 micrograms per liter (µg/l) to 1,900 µg/l, and the results for one groundwater sample exceeded the Freshwater Eco-Toxicity ESL of 443 µg/l. The laboratory analytical results also indicated all twelve groundwater samples contained TPH(d) in the diesel range (C13-C22) at concentrations ranging from 610 µg/l to 15,000 µg/l, and the results for eleven groundwater samples exceeded the Freshwater and Saltwater Eco-Toxicity ESL of 640 µg/l. In addition, the laboratory analytical results indicated all twelve groundwater samples contained TPH(o) in the oil range (C23-C40) at concentrations ranging from 390 µg/l to 22,000 µg/l. ESL values for TPH(o) (C23-C40) have not been established.

The soil and groundwater remediation activities at the Onshore Facility would be completed in accordance with a Remedial Action Plan (RAP) approved by the Los Angeles Regional Water Quality Control Board (LARWQCB) and VCEHD. There are several Options (1 through 5) considered within the Project that could achieve the specified remediation levels determined in the RAP. It is important to note that any remediation option described in the RAP would be reviewed and approved by the LARWQCB and the County of Ventura to establish the remediation methods to achieve required cleanup levels (objectives) prior to Project implementation. Any of these remediation methodologies and options could be implemented on the Onshore Facility alone or in combination with the neighboring privately owned Coast Ranch parcel, as discussed within the cumulative projects assessment. However, for the purposes of the proposed Project, only work on the Onshore Facility is addressed. All of the options would result in cleanup of the site for future uses that are allowable under the Public

Trust (i.e., non-residential). A summary of site preparation and remediation methodologies and options considered is provided below.

2.3.4.1 Site Preparation and Remediation Methodologies

Site Preparation

Successful remediation of the Onshore Facility would necessitate the installation of a physical barrier (sheet pile wall) between the Onshore Facility and the adjacent privately-owned Coast Ranch parcel, as the major source of contamination on the Onshore Facility has been shown to originate from the upgradient Coast Ranch parcel. It is important to note that this sheet pile wall would not be necessary if remediation activities at the Coast Ranch parcel were proposed to occur at the same time as the Project.

A 750-foot-long steel sheet pile wall would be installed to an approximate depth of 20 feet bgs. The sheet pile wall would act as a barrier to the migration of petroleum hydrocarbon soil and contaminated groundwater from the adjacent Coast Ranch parcel. The sheet pile wall would be installed using an excavator to hold the sheet pile in place and a vibratory hammer to drive (vibrate) the sheet piles down to the desired depth. Excavation of soil is not required for this installation method.

Site preparation activities would also include installation of a mobile office trailer with a dedicated parking area, and construction of a dedicated equipment fueling area with secondary containment. Where present, other infrastructure such as remnant concrete foundations, power poles, pipelines, and miscellaneous appurtenances would be removed to establish a clear working area with no obstructions. Appropriate signage would be installed to direct truck traffic and visitors, as well as to identify hazards within the work area such as open excavation areas.

Remediation Methodologies

Soil Excavation

For options requiring excavation, the petroleum hydrocarbon-contaminated soil and asphaltic aggregate base materials would be excavated using standard commercial excavation equipment (e.g., hydraulic excavator, front-end loader, track-mounted dozer). In support of these activities, an engineered grading plan would be prepared for submittal to the County of Ventura to obtain a grading permit for the excavation and backfill activities. The excavation area sidewalls would be sloped to provide safe access for the equipment to excavate the vertical and lateral extent of petroleum hydrocarbon-contaminated soil. Any excavated petroleum hydrocarbon-contaminated soil would be placed into covered trucks and transported to an offsite disposal or recycling facility that accepts non-hazardous petroleum hydrocarbon-contaminated waste. Verification soil samples would be collected from the excavation area on a grid pattern with approximately 25 feet between sample locations. The soil samples would be chemically analyzed for the presence of petroleum hydrocarbon concentrations in soil. As soon as soil samples confirm that the RAP levels have been met, remediation (in the subject area) will be complete, and the excavation can be backfilled with clean soil. Imported replacement backfill materials would be graded and compacted in-place to a minimum of 90 percent relative compaction. Equipment used for backfilling and compaction includes end-dump trucks, front end loaders, dozers, and vibratory soil compactors.

Groundwater Pump and Treat

For options including pump and treat groundwater remediation, groundwater dewatering wells would be installed using a truck-mounted hollow-stem auger drilling rig around the excavation area. The extracted petroleum hydrocarbon-contaminated groundwater would be pumped from the dewatering wells and processed through a series of settling tanks, bag filters, and granular activated carbon vessels system within an approximately 40- by 60-foot area at the Onshore Facility, filtered, and tested to meet the requirements to discharge onsite into the County of Ventura-operated sanitary sewer system. A representative photograph of an unrelated groundwater pump and treat system is provided in Figure 2-26 below.

Based on regular testing intervals to confirm completion of the established RAP remediation goals, the dewatering wells would be removed, and the excavation area (as applicable) would be backfilled to match surrounding grade with clean soil from a source located in Ventura County. The surface area would be graded and restored to establish positive drainage from the disturbed area.

Figure 2-26. Example Groundwater Pump and Treat System

Bioremediation

Bioremediation is the process of using biological elements (such as microscopic organisms or plants) to remove pollutants or waste from the environment. Some of the Onshore Facility remediation options include bioremediation of either groundwater or soil as described below.

1. Bioremediation of groundwater that contains dissolved-phase petroleum hydrocarbons is achieved by injecting an oxygen releasing compound (ORC) to the saturated soil zone underground using a specialized type of drilling rig. The ORC increases the dissolved oxygen concentrations in the groundwater which improves the aerobic conditions underground and stimulates the naturally occurring bacteria to break down the dissolved-phase petroleum hydrocarbons more quickly. This type of groundwater remediation methodology takes place underground with only short periods of equipment activity (i.e., several days) at the site compared to a pump and treat system that would include tanks, vessels, and piping constructed at the site for several months. However, this methodology can result in a longer timeframe to achieve cleanup goals.

2. Bioremediation of petroleum hydrocarbons in soil uses the natural metabolic process of naturally occurring bacteria in the soil by excavating the soil and placing the material in an onsite treatment area

(requiring approximately 18,205 square feet or 0.4 acre, at depths of up to 11 feet) where optimal conditions (temperature, moisture, oxygen, and nutrients) are created for the bacteria to consume the hydrocarbons. Optimal soil conditions are achieved by applying water mixed with fertilizer and tilling the soil on a weekly basis. Representative soil samples are collected monthly to track the progress of the bioremediation process and the degradation of the petroleum hydrocarbons to achieve the desired clean-up concentration. The use of soil bioremediation eliminates the need to truck the contaminated soil offsite for disposal at a landfill. However, bioremediation of soil may be constrained due to usable space limitations onsite as well as setbacks that may be required from the adjacent fire station property. Based on the anticipated area available that would be utilized for treatment of soil onsite, this activity would take approximately 72 months (6 years) to complete.

2.3.4.2 Onshore Facility Remediation Options

A number of Onshore Facility remediation options are being included for consideration by the Commission (Options 1 through 5). A summary of each of the five remediation options, in terms of proposed methodology and feasibility with respect to the Project objectives, is provided below.

Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation

Option 1 would take approximately 22 workdays (5 weeks) to complete and would not include any active remediation or excavation of contaminated soil, but would utilize the existing recycled asphalt aggregate base material currently placed throughout the Onshore Facility Project site, as well as new asphalt as a surface cap across the areas of contaminated soil onsite. The use of in-situ (in-place) groundwater bioremediation (oxygen releasing compounds) would be applied (see Bioremediation Methodology, above). Monitoring of the natural reduction in the volume of contamination in groundwater would be conducted for a period of 5 years following completion of groundwater bioremediation activities.

If authorized by the responsible permitting agencies, implementation of this option would allow the existing contaminated soil to remain in-place, as it would be capped with existing and added recycled asphalt aggregate base material. Implementation of this option would avoid excavation onsite to depths of up to 10 feet bgs and associated short-term construction-related impacts including hauling away of contaminated soil and import of clean soil. The only truck trips required in support of this option would be for equipment mobilization and demobilization, placement of additional surface cap material, and site access to facilitate monitoring during groundwater bioremediation activities. No hauling of materials to an offsite disposal facility would be necessary.

Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation

Option 2 would include excavation of the existing contaminated soil and hauling it, as non-hazardous waste, to an offsite disposal facility. Approximately 7,500 cubic yards of petroleum hydrocarbon-contaminated soil would be excavated to an estimated depth of 10 feet bgs. The area of disturbance would be approximately 0.48 acre. Clean imported fill material would be brought in for backfill and restoration of the excavation area.

If authorized by the responsible permitting agencies, this remediation option would include pump and treat groundwater remediation techniques applied within and downstream of the contamination source zone to remove and treat onsite dissolved-phase petroleum hydrocarbon concentrations in groundwater (see Remediation Methodology, above). Monitoring of natural reduction of contamination in groundwater would be conducted for a period of 1 year following completion of the soil remediation activities.

Work activities for Option 2 are anticipated to take a maximum of approximately 45 workdays (9 weeks) to achieve the regulatory specifications required for cleanup. Construction equipment would include an excavator, loader, dozer, hauling trucks, a generator, tanks, hollow-stem auger drilling rig, and support trucks. Hauling trips required in support of this option would be for equipment mobilization and demobilization, placement of additional asphalt base material, as well as approximately 675, 18-ton capacity dump trucks for soil removal and another 675 trucks for import of clean soil.

Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation

Remediation Option 3 includes excavation of the existing contaminated soil and using an onsite soil bioremediation land treatment to remediate existing contamination (see Remediation Methodology, above). Once regulatory clean-up goals had been met, the remediated soil would be reused as clean backfill material within the original excavation.

Additionally, if authorized by the responsible permitting agencies, this remediation option would include pump and treat groundwater remediation techniques applied within the soil contamination source zone and downstream from the source zone to remove and treat onsite dissolved-phase petroleum hydrocarbon concentrations in groundwater (see Remediation Methodology, above). Monitoring of natural attenuation in groundwater would be conducted for a period of 1 year following completion of the soil remediation activities.

Work activities for Option 3 are anticipated to require a maximum of approximately 57 workdays (12 weeks) of initial work and periodic watering and tilling for 1 day per week for approximately 72 months (6 years) to achieve the regulatory specifications for cleanup. Equipment required would include an excavator, loader, dozer, hauling trucks, a generator, hollow-stem auger drilling rig, and support trucks. This methodology would avoid hauling contaminated soil from the Onshore Facility Project site for disposal, but would still generate approximately 1,944 trips to handle material onsite using a 12-ton capacity 10-wheeled dump truck.

Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation

If authorized by the responsible permitting agencies, remediation Option 4 would include the use of either an excavator or a large diameter flight auger to facilitate in-situ mixing of petroleum hydrocarbon-containing soil with a common reagent such as cement to solidify and stabilize the petroleum hydrocarbon-containing soil in place. A pilot study would be conducted (taking approximately 5 contaminated core samples and applying the proposed solidification medium to determine what ratio of soil to cement would achieve required stability) prior to work activities to verify the effectiveness of this remediation methodology with respect to onsite conditions.

The use of in-situ groundwater bioremediation (injection of oxygen releasing compounds using a direct-push drilling rig) would also be utilized at an elevation that is geologically downgradient from the contamination source zones to reduce dissolved-phase petroleum hydrocarbon concentrations in groundwater using bioremediation methods (see Remediation Methodology, above).

Work activities for Option 4 would require a maximum of approximately 55 workdays (11 weeks) to complete. Equipment required would include an excavator or large-diameter flight auger drilling rig, loader, dozer, direct-push drilling rig, and support trucks. Hauling trips required in support of this option would be for equipment mobilization and demobilization and approximately 10, 120-ton capacity bulk cement truck trips. Implementation of this option would allow the existing contaminated soil to remain in place, as it would be mixed with cement in order to encapsulate the material onsite.

Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation

Remediation Option 5 would include localized excavation of the Onshore Facility at locations where TPH concentrations in soil exceed environmental screening levels (ESLs) for commercial properties at depths of approximately 3 feet or less, and capping the areas containing petroleum hydrocarbon-containing soil at depths greater than approximately 3 feet with clean backfill. Accordingly, soil excavation at two locations would be conducted to depths of approximately 3 feet, for an estimated total removal volume of 2,300 cubic yards. Similar to other options considered, the excavated soil would be transported as non-hazardous waste to an appropriate disposal facility, and the excavation would be backfilled with non-contaminated import fill material, requiring approximately 115 trips for removal of excavated soil and 115 trips for import of clean soil as backfill. In-situ groundwater bioremediation would also occur by injecting oxygen releasing compounds using a direct-push drilling rig. Work activities for Option 5 would take approximately 25 workdays (5 weeks). Equipment required for Option 5 would include an excavator, loader, dozer, hauling trucks, a direct-push drilling rig, and support trucks.

2.4 CONSTRUCTION STAGING AREAS AND ACCESS

2.4.1 Staging Areas

Construction equipment and materials are likely to be staged within the fenced causeway entrance or on Rincon Island during Island decommissioning activities, or within the gated entrance to the causeway during the SCC Parcel improvements. Equipment would be staged alongside the informal dirt access roadway parallel to the railroad right-of-way and west of the existing vault for decommissioning of the OPC. Equipment would be staged within the existing fenced Onshore Facility during the proposed Onshore Facility remediation activities. The Onshore Facility may also be utilized for staging during work at the other Project sites. Please see Figures 2-27 through 2-30 for the location of staging areas associated with the proposed Project.

2.4.2 Access

Access to the proposed Project sites is shown in Figures 2-27 through 2-30 below. Rincon Island, the causeway, and the SCC Parcel are accessible along the southbound lanes of U.S. Highway 101/SR 1 or from U.S. Highway 101 northbound to SR 1 (State Beaches exit) and through the community of Mussel Shoals. Access to the OPC is from U.S. Highway 101 northbound only (La Conchita exit) to the informal dirt access roadway parallel to the highway and railroad right-of-way. As shown in Figure 2-28, access to the beach area in front of the SCC Parcel is from the gated causeway entrance eastward from informal pathways down the parcel to the shoreline. Access to the Onshore Facility is from U.S. Highway 101 northbound or southbound to exit 78 (State Beaches), to SR 1 through the private Coast Ranch parcel to the Onshore Facility.

2.4.2.1 Public Access

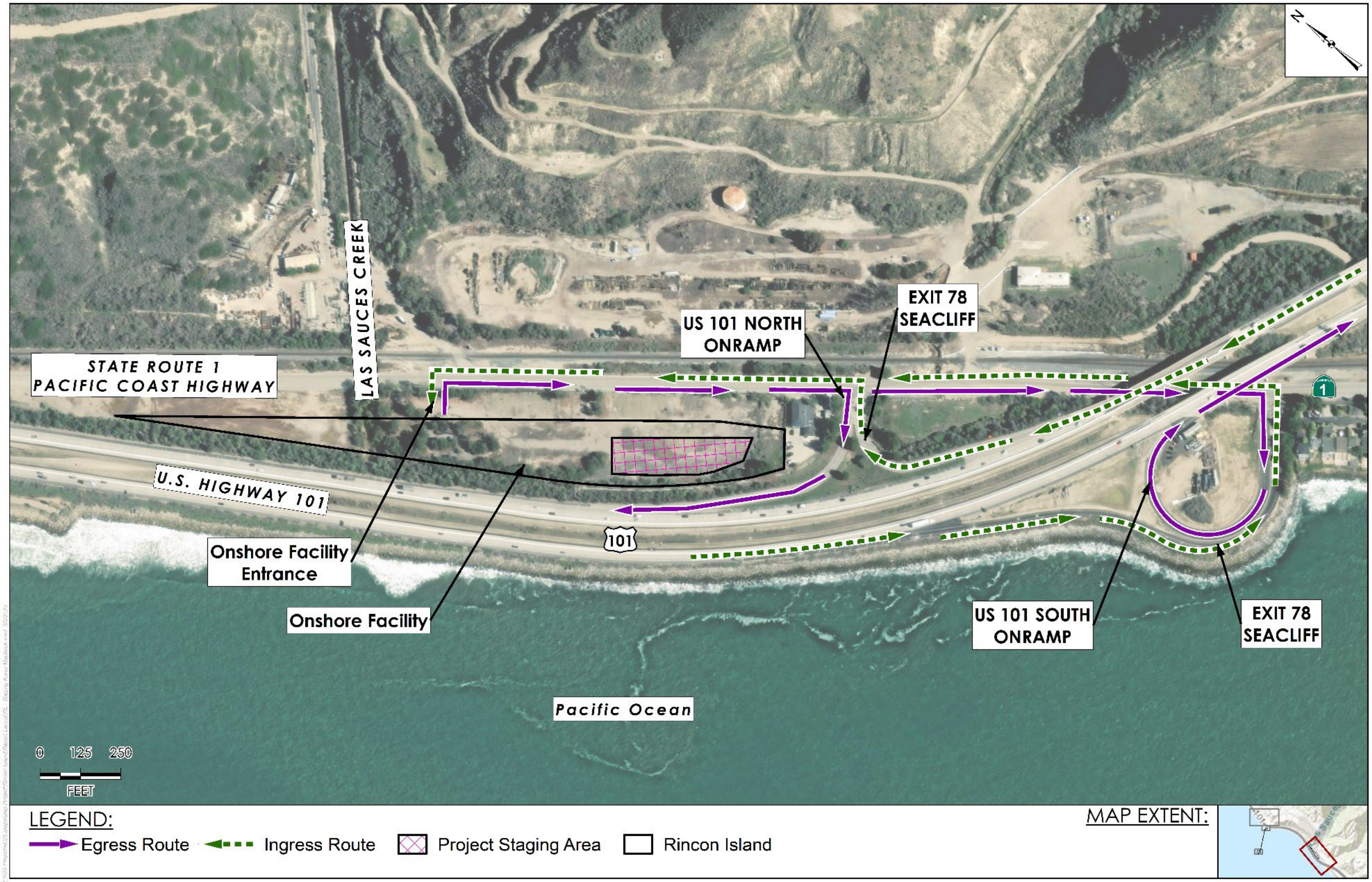
Every attempt would be made to keep the beach areas adjacent to the proposed Project sites open for public access, to the extent it is safe to do so. During SCC Parcel activities, limited temporary beach access restrictions for intermittent equipment access would be necessary for a period of approximately 2 to 5 weeks. Additionally, access from private roadways leading to the beach in the areas surrounding the decommissioning activities would be interrupted by trucks during structure and contaminated soil removal on the Island which requires access from Ocean Avenue (for more information on public access, refer to Section 4.13, Transportation and Traffic). However, during potentially hazardous activities, safety personnel would be stationed near the causeway entrance to prevent unfettered public transit through the proposed Project site.

Figure 2-27. Access and Staging - Rincon Island

Figure 2-28. Access and Staging – Rincon Island Causeway and SCC Parcel Areas

Figure 2-29. Access and Staging – Onshore Pipeline Connections Area

Figure 2-30. Access and Stag–ng - Onshore Facility



2.5 RECYCLING AND DISPOSAL OF SOIL AND MATERIALS

2.5.1 Estimated Waste Volumes and Waste Receiving Facilities

The estimated materials, volumes, and linear footage (where applicable) of waste or import materials anticipated to be generated or required during the proposed Project are provided in Table 2-2. Where feasible, materials removed (i.e., steel, concrete, and scrap metal) would be recycled. Recyclable materials are anticipated to be taken southward to Standard Industries (1905 Lirio Avenue, Ventura) or State Ready Mix Recycling – Asphalt and Concrete (3127 Los Angeles Avenue, Oxnard) in Ventura County.

Non-hazardous petroleum hydrocarbon-contaminated waste (such as soils that are known to exist at Rincon Island and the Onshore Facility) would likely be transported to Waste Management (195 W. Los Angeles Avenue, Simi Valley), in Ventura County, for disposal. Imported clean soil required for backfill at Rincon Island and the Onshore Facility and cobbles required for the SCC Parcel improvements are anticipated to come from Grimes Rock (3500 Grimes Canyon Road, Fillmore), in Ventura County. Interstitial water from Rincon Island that may be encountered during excavation activities and pipeline flush water would be transported using a vacuum truck to the World Oil facility (9302 Garfield Avenue, South Gate), in Los Angeles County or equivalent.

See Figure 2-31 for proposed hauling routes to or from these facilities. Groundwater generated from excavation dewatering activities at the Onshore Facility would be discharged onsite under permit to the County of Ventura sanitary sewer system after processing through a transportable onsite groundwater treatment system.

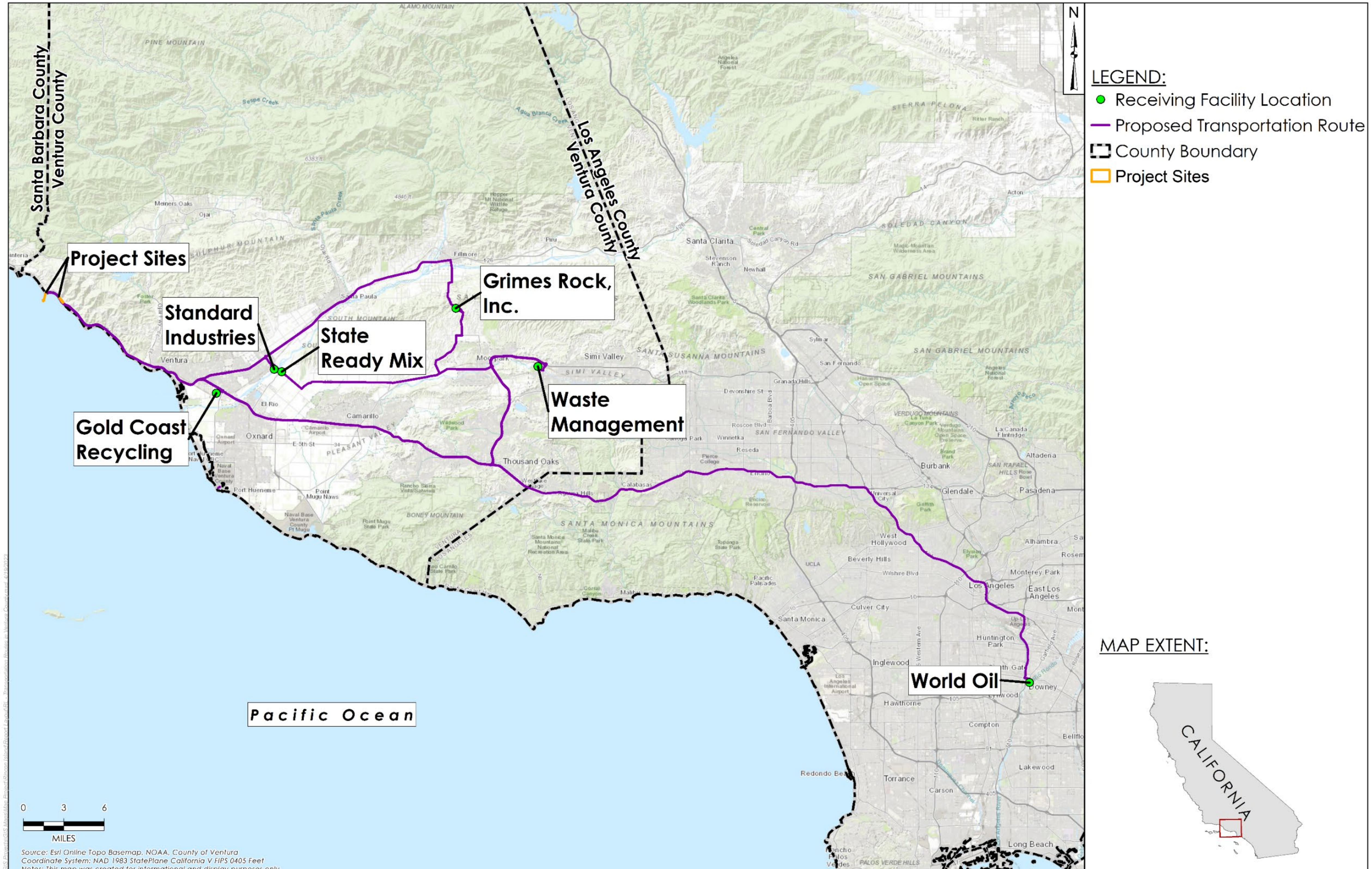
Table 2-2. Estimates of Import/Export of Waste and Materials During Phase 2 Decommissioning

Project Site	Export	Import	Material	Total	Units
Rincon Island	X		Surface Structures (Steel, Concrete, Scrap Metal, Septic System – [if removed])	300	Cubic yards
Rincon Island	X		Scrap Metal	1	Trailer
Rincon Island	X		Well Bay Concrete	67	Cubic yards
Rincon Island	X		Pavement	237	Cubic yards
Rincon Island	X		Contaminated Interstitial Water	50,400	Gallons
Rincon Island	X		Contaminated Soil (sand and gravel)	9,605	Cubic yards
Rincon Island		X	Backfill - Clean Soil	9,605	Cubic yards
SCC Parcel	X		Non-Native Vegetation and Soil	2,500	Cubic yards
SCC Parcel	X		Coastal Hazards (Rebar and Remnant Pipe, Concrete) (as applicable)	10	Cubic yards
SCC Parcel		X	Native Vegetation	181	Cubic yards
SCC Parcel		X	Trail Aggregate	11.3	Cubic yards
SCC Parcel		X	Sign and Bench	2	Items
SCC Parcel		X	Concrete (Stairs)	6.2	Cubic yards
SCC Parcel (Option 2)		X	Cobble	2,500	Cubic yards
SCC Parcel (Option 3)		X	Riprap	360	Cubic yards

Project Site	Export	Import	Material	Total	Units
OPC – 2, 6-inch-diameter Pipelines	X		Flushwater	5,811	Gallons
OPC – 2, 6-inch-diameter Pipeline	X		Cleaned and Flushed Pipelines (Casing to Vault)	1,318	Linear Feet
OPC – 30-inch-diameter Casing	X		Casing	240	Linear Feet
OPC – 2, 6-inch-diameter Pipelines		X	Cement for Grouting	10	Cubic yards
Onshore Facility (Options 1, 2, 3, 4)	X		Recycled Asphalt Aggregate Base	9,360	Cubic yards
Onshore Facility (Option 2)	X		Hydrocarbon-contaminated soil	7,500	Cubic yards
Onshore Facility (Option 2)		X	Clean Backfill Soil	8,250	Cubic yards
Onshore Facility (Option 5)	X		Hydrocarbon-contaminated soil	800	Cubic yards
Onshore Facility (Option 5)		X	Clean Backfill Soil	800	Cubic yards
Onshore Facility (Options 2 or 3)	X		Contaminated Groundwater	58,500	Gallons

Sources: Padre 2021a, b; L123 2022

Figure 2-31. Anticipated Hauling Routes (Onshore)



2.5.2 Anticipated Truckloads (Onshore)

The removal of materials from the proposed Project sites would require the use of a variety of trucks to facilitate recycling and disposal (see Table 2-2 above). A summary of the anticipated truck trips required for material transport from each proposed Project site is provided in Table 2-3.

Table 2-3. Truckload Estimate – Material Transport

Item	Export	Import	Trips[1]	Anticipated Source/Receiving Facility	One-Way Miles per Trip (max)
Rincon Island					
Scrap Materials from Structure Demolition	X		31	Standard Industries	23
Pavement and Concrete	X		31	State Ready Mix	26
Hydrocarbon Contaminated Soil	X		960	Waste Management	50
Clean Soil		X	960	Grimes Rock	41
Hydrocarbon Contaminated Interstitial Water	X		10	World Oil	95
Total for Rincon Island	-	-	**1,992**	-	235
SCC Parcel, Option 1					
Displaced Non-native Vegetation Only	X		10	Gold Coast Recycling	18
Site Improvements: (Bench, Sign, Native Plants)		X	2	Various – Ventura County	15
Concrete Shoreline Structure Removal	X		2	Grimes Rock	41
Stairway Construction		X	1	State Ready Mix	26
Trail Improvements (Crushed Aggregate)		X	2	Grimes Rock	41
Total for SCC Parcel Option 1	-	-	**17**	-	141
SCC Parcel, Option 2					
Displaced Non-native Vegetation and Soil	X		250	Gold Coast Recycling	18
Cobble Import		X	250	Grimes Rock	41

Item	Export	Import	Trips[1]	Anticipated Source/Receiving Facility	One-Way Miles per Trip (max)
Site Improvements: (Bench, Sign, Native Plants)		X	2	Various – Ventura County	15
Concrete Shoreline Structure Removal	X		2	Grimes Rock	41
Stairway Construction		X	1	State Ready Mix	26
Trail Improvements (Crushed Aggregate)		X	2	Grimes Rock	41
Total for SCC Parcel Option 2	-	-	**507**	-	182
SCC Parcel, Option 3					
Displaced Non-native Vegetation Only	X		10	Gold Coast Recycling	18
Riprap Import		X	36	Grimes Rock	41
Site Improvements: (Bench, Sign, Native Plants)		X	2	Various – Ventura County	15
Concrete Shoreline Structure Removal	X		2	Grimes Rock	41
Trail Improvements (Crushed Aggregate)		X	2	Grimes Rock	41
Stairway Construction		X	1	State Ready Mix	26
Total for SCC Parcel, Option 3	-	-	**53**	-	182
OPC					
Pipeline Segments	X		4	Standard Industries	23
Flush Water		X	2	World Oil	95
Concrete Slurry		X	2	State Ready Mix	26
Total for OPC	-	-	**8**	-	144
Onshore Facility, Option 1					
Recycled Asphalt Base	X		468	State Ready Mix	26
Sheet Pile Wall Installation		X	20	To Be Determined – Long Beach	105
Total for Onshore Facility Option 1	-	-	**488**	-	131
Onshore Facility, Option 2					
Recycled Asphalt Base	X		468	State Ready Mix	26

Item	Export	Import	Trips¹	Anticipated Source/Receiving Facility	One-Way Miles per Trip (max)
Sheet Pile Wall Installation		X	20	To Be Determined – Long Beach	105
Hydrocarbon Contaminated Soil	X		675	Waste Management	50
Clean Soil for Backfill		X	675	Grimes Rock	41
Total for Onshore Facility Option 2	-	-	**1,838**	-	222
Onshore Facility, Option 3 ²					
Recycled Asphalt Base	X		468	State Ready Mix	26
Sheet Pile Wall Installation		X	20	To Be Determined – Long Beach	105
Total for Onshore Facility Option 3	-	-	**488**	-	131
Onshore Facility Option 4					
Recycled Asphalt Base	X		468	State Ready Mix	26
Sheet Pile Wall Installation		X	20	To Be Determined – Long Beach	105
Cement for Mixing		X	10	State Ready Mix	26
Total for Onshore Facility Option 4	-	-	**498**	-	157
Onshore Facility, Option 5					
Sheet Pile Wall Installation		X	20	To Be Determined – Long Beach	105
Hydrocarbon Contaminated Soil	X		72	Waste Management	50
Clean Soil for Backfill		X	72	Grimes Rock	41
Total for Onshore Facility Option 5	-	-	**164**	-	196

[1]Trips are based upon the following truck capacity assumptions: 10 cubic yard weight limit for trucks hauling to/from Rincon Island based on causeway weight restrictions; 10 cubic yard trucks for residential street access to and from the SCC Parcel; and 120-ton cement truck capacity and 20 cubic yard end-dump truck capacity for trips to and from the OPC and Onshore Facility areas. Drying and compaction of native plant material would reduce volume by approximately

50% before export. Additionally, the volume of hydrocarbon contaminated soil taken from the Onshore Facility site includes an expansion factor of 25% prior to export.
[2] All contaminated soil removed during Option 3 would be treated onsite and would not require export.

2.6 EQUIPMENT REQUIREMENTS

The likely primary equipment operation associated with each Project site activity is provided below. Generally speaking, equipment would be removed from the work area and returned to the identified staging area following completion of work each day. Any refueling or maintenance of equipment would be conducted in the designated staging areas. It is important to note that the anticipated number of days related to equipment usage may be different than that noted for the decommissioning activity as a whole, as certain subtasks (like mobilization) would not require operation of equipment. For a discussion of total Project durations at each site location, please refer to Section 2.7, Schedule.

2.6.1 Rincon Island

Decommissioning at Rincon Island would consist of removal of three remaining buildings, removal of well bay concrete and pavement, and removal of contaminated soil and interstitial water, followed by backfill with clean soil. The anticipated equipment required for these activities is provided in Table 2-4. Truck trips associated with import/export of materials are accounted for in Table 2-3 above.

Table 2-4. Anticipated Equipment – Rincon Island Decommissioning Activities

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Removal of Island Surface Structures				
Excavator	2	310	8	23
Wheeled Loader	1	240	8	23
Crane (mobile)	1	350	8	2
Removal of Well Bay Concrete Deck				
Excavator	2	310	8	8
Wheeled Loader	1	240	8	8
Removal of Island Pavement and				

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Hydrocarbon Contaminated Soil				
Excavator	2	310	8	186
Dozer (D8)	1	355	8	186
Wheeled Loader	2	240	8	186
Backfill with Clean Soil				
Excavator	2	310	8	172
Water Truck	1	355	8	172
Wheeled Loader	1	240	8	172
Vibratory Soil Compactor	1	74	8	172

2.6.2 SCC Parcel Improvements

To improve public access on the SCC Parcel and to the beach, the SCC Parcel improvements would install an access stairway and improve the informal pathways. In addition, hand crews would perform non-native vegetation removal and installation of native plants, as applicable. A small amount of basic construction equipment would be utilized to remove coastal hazards, including exposed rebar within concrete and remnant piping along the shoreline, and excavate the area proposed for placement of erosion prevention (in Option 2 or 3). A summary of anticipated equipment required for the SCC Parcel improvements is provided in Tables 2-5a through 2-5c. Truck trips associated with import/export of materials are accounted for in Table 2-3 above.

Table 2-5a. Anticipated Equipment – SCC Parcel Improvements (Option 1: Native Revegetation and Access Improvements)

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Public Access Improvements (Trail Improvements, Removal of Coastal Hazards, Installation of Stairway)				
Excavator	2	310	8	5
Wheeled Loader	1	240	8	5
Restoration with Native Vegetation				

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Light Duty Truck (bi-weekly watering for 1 year)	1	N/A	4	26

Note: N/A = standard work truck would be required to pull portable water tank to Project site but would not be required to operate during watering activities. Removal of non-native vegetation and replanting would be done using hand crews only.

Table 2-5b. Anticipated Equipment – SCC Parcel Improvements (Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm)

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Cobble Back Berm Installation				
Excavator	2	310	8	10
Wheeled Loader	1	240	8	10
Vibratory Soil Compactor	1	74	8	10
Public Access Improvements (Trail Improvements, Removal of Coastal Hazards, Installation of Stairway)				
Excavator	2	310	8	5
Wheeled Loader	1	240	8	5
Restoration with Native Vegetation				
Light Duty Truck (bi-weekly watering for 1 year)	1	N/A	4	26

Note: N/A = standard work truck would be required to pull portable water tank to Project site but would not be required to operate during watering activities. Removal of non-native vegetation and replanting would be done using hand crews only.

Table 2-5c. Anticipated Equipment – SCC Parcel Improvements (Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage)

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Installation of Riprap Along Parcel Frontage				
Spider Excavator	1	255	8	15
Crane (mobile)	1	350	8	15
Public Access Improvements (Trail Improvements, Removal of Coastal Hazards, Installation of Stairway)				
Excavator	2	310	8	5
Wheeled Loader	1	240	8	5
Restoration with Native Vegetation				
Light Duty Truck (bi-weekly watering for 1 year)	1	N/A	4	26

Note: N/A = standard work truck would be required to pull portable water tank to Project site but would not be required to operate during watering activities. Removal of non-native vegetation and replanting with natives would be done using hand crews only.

2.6.3 Onshore Pipeline Connections

Decommissioning of the OPC would require pipeline flushing and grouting equipment, as well as equipment to remove the pipelines from the causeway abutment to the concrete vault. The anticipated equipment required for these activities is provided in Table 2-6. Within this total duration, equipment will be required to access the pipelines for pigging and flushing activities within the Mussel Shoals community near the casing access point at the northern end of Ocean Avenue for approximately 10 days. Truck trips associated with import/export of materials are accounted for in Table 2-3 above.

Table 2-6. Anticipated Equipment – Onshore Pipeline Connections Decommissioning Activities

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Excavator	1	310	8	20
Air Compressor (185 cfm)	1	50	8	5
Dozer (D8)	1	355	8	20
Welding Machine	1	20	8	10
Wheeled Loader	1	240	8	20
Water Pump	1	20	8	5
Concrete Pump	1	250	8	5

2.6.4 Onshore Facility

The Onshore Facility has already been cleared of surface structures; therefore, the equipment required for remediation and backfill activities would be primarily limited to excavation equipment and trucks in support of various remediation options. A summary of anticipated equipment for Onshore Facility remediation options is provided in Tables 2-7a through 2-7e. Truck trips associated with import and export of materials are accounted for in Table 2-3 above.

Table 2-7a. Anticipated Equipment – Onshore Facility Remediation (Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation)

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Work Truck	4	275	8	28
Direct-Push Drilling Rig	1	120	8	18
Surface Cap Construction				
Excavator	1	310	8	5
Wheeled Loader	1	240	8	5
Dozer (D8)	1	355	8	5

Table 2-7b. Anticipated Equipment – Onshore Facility Remediation (Option 2: Excavate Contaminated Soil [Dig and Haul] and Pump and Treat Groundwater Remediation)

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Work Truck	4	275	Work Truck	45
Sheet Pile Installation				

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Vibratory Hammer	1	415	8	10
Excavator	1	310	8	10
Soil Excavation				
Excavator	1	310	8	30
Wheeled Loader	2	240	8	30
Dozer (D8)	1	355	8	15
Vibratory Soil Compactor	1	100	8	15
Pump and Treat Groundwater Remediation				
Drill Rig (dewatering wells)	1	175	8	2
Generator (pumps)	1	50	24	30

Table 2-7c. Anticipated Equipment – Onshore Facility Remediation (Option 3: Excavate Contaminated Soil [Onsite Soil Treatment and Bioremediation] and Pump and Treat Groundwater Remediation)

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Work Truck	4	275	Work Truck	40
Sheet Pile Installation				
Vibratory Hammer	1	415	4	10
Excavator	1	310	8	10
Soil Excavation				
Excavator	1	310	8	40
Wheeled Loader	2	240	8	40
Dozer (D8)	1	355	8	40
Vibratory Soil Compactor	1	74	8	40
Onsite Soil Treatment Maintenance (Requires Watering and Tilling 1 day per week over 72 months)				
Work Truck	2	275	Work Truck	288
Water Truck	1	300	8	288
Dozer (D8)	1	355	8	288
Pump and Treat Groundwater				

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Remediation				
Drill Rig (dewatering wells)	1	175	8	2
Generator (pumps)	1	50	24	30

Table 2-7d. Anticipated Equipment – Onshore Facility Remediation (Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation)

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Work Truck	4	275	Work Truck	41
Sheet Pile Installation				
Vibratory Hammer	1	415	4	10
Excavator	1	310	8	10
Pilot Study				
Hollow Stem Auger (for soil samples to use in study)	1	140	8	1
In-Situ Soil Mixing				
Excavator or Large-Diameter Flight Auger	1	310	8	30
Wheeled Loader	2	240	8	30
Dozer (D8)	1	355	8	30

Table 2-7e. Anticipated Equipment – Onshore Facility Remediation (Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation)

Equipment Type	Quantity	Horsepower	Operating Hours per Day	Days
Work Truck	4	275	Work Truck	54
Direct-Push Drilling Rig	1	120	8	17
Sheet Pile Installation				
Vibratory Hammer	1	415	4	10
Excavator	1	310	8	10
Localized Excavation				
Excavator	1	310	8	17
Wheeled Loader	1	240	8	17
Dozer (D8)	1	355	8	17
Vibratory Soil Compactor	1	74	8	17

2.7 PERSONNEL REQUIREMENTS

Personnel are anticipated to originate locally. A small portion of personnel would be brought in from outside the County to help facilitate the work. These workers would be accommodated locally in short-term rental facilities (such as hotels or temporary housing rentals).

Adequate parking exists at each of the proposed Project sites to support the anticipated number of personnel required. However, carpooling would be encouraged to reduce potential trips. Parking would occur within the designated staging areas at each site and could be coordinated from the Onshore Facility to reduce the amount of parking required at sites with limited access. A summary of anticipated personnel requirements for work activities at each Project site is provided in Table 2-8 below.

Table 2-8. Personnel Requirements

Task	Quantity	Hours per Day	Days
Rincon Island Remediation			
Rincon Island Removal of Surface Structures	12	8	25
Rincon Island Removal of Well Bay Concrete Deck	10	8	20
Rincon Island Removal of Asphalt Pavement and Contaminated Soil and Backfill with Clean Soil	12	8	186
OPC Removal	10	8	20
SCC Parcel Improvements (Only One to Be Selected)			
Option 1: Native Revegetation			
Restoration with Native Plants (Replanting) – Hand Crews	5	8	5
Restoration with Native Plants (Maintenance)	1	4	26
Public Access Improvements	5	8	5
Removal of Non-Native Vegetation – Hand Crews	5	8	5

Task	Quantity	Hours per Day	Days
Option 2: Native Revegetation and Cobble Back Berm	5	8	10
Option 3: Native Revegetation and Riprap Along Parcel Frontage	5	8	14
Onshore Facility Remediation (Only One to Be Selected)			
Option 1: Surface Cap/ Leave Contaminated Soil In-Place and In-Situ Groundwater Remediation	4	8	28
Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation	4	8	45
Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation – Construction	4	8	40
Option 3: Soil Treatment Maintenance (Once a week over 72 months)	3	8	288
Option 4: In-Situ Soil Mixing and In-Situ Groundwater Remediation	4	8	41
Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation	4	8	54

2.8 SCHEDULE

Decommissioning is estimated to require approximately 2 years, with the exception of Onshore Facility Remediation Option 3, where soil treatments would extend over an additional 72 months (6 years). Activities may not occur sequentially and may overlap dependent upon a variety of factors related to access, permit restrictions, funding, and contractor and equipment availability. It is important to note that at this time, no anticipated start or finish date can be predicted, as timing would be dependent upon selection of the proposed Project or alternative, completion and certification of the EIR, acquiring funding, and associated permitting timeframes. A summary of anticipated total durations for each Project site, including decommissioning and any restoration or longer term remediation or monitoring is provided in Table 2-9.

Table 2-9. Summary of Project Timing

Project Decommissioning Site	Anticipated Total Duration of Construction (workdays/duration)	Anticipated Total Duration of Restoration or Remediation Monitoring (workdays/duration)
Rincon Island	437 workdays/ 15 months	None Required
Public Facilities Retention Option	437 workdays/ 15 months	None Required
SCC Parcel		
Option 1 – Native Revegetation and Access Improvements	10 workdays/ 2 weeks	26 workdays/ 1 year
Option 2 – Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm	20 workdays/ 4 weeks	26 workdays/ 1 year
Option 3 – Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage	25 workdays/ 5 weeks	26 workdays/ 1 year
OPC	29 workdays/ 6 weeks (Only 10 days within Mussel Shoals Community for pipeline flushing)	None Required
Onshore Facility		
Option 1: Surface Cap/Leave Contaminated Soil In-	22 workdays/ 5 weeks	10 workdays/ 5 years

Project Decommissioning Site	Anticipated Total Duration of Construction (workdays/duration)	Anticipated Total Duration of Restoration or Remediation Monitoring (workdays/duration)
Place and In-Situ Groundwater Bioremediation		
Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation	45 workdays/ 9 weeks	4 workdays/ 1 year
Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation	57 workdays/ 12 weeks	324 workdays (1 day per week)/ 6 years
Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation	55 workdays/ 11 weeks	10 workdays/ 2 weeks
Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation	25 workdays/ 5 weeks	10 workdays/ 2 weeks

3.0 CUMULATIVE PROJECTS

State California Environmental Quality Act (CEQA) Guidelines section 15130 requires that an Environmental Impact Report (EIR) discuss cumulative impacts of a project when the project's incremental effect may be cumulatively considerable.[6] As defined in State CEQA Guidelines section 15355:

> Cumulative impacts refer to two or more individual effects, which, when considered together, are considerable or which compound or increase other environmental impacts. (a) The individual effects may be changes resulting from a single project or a number of separate projects. (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

State CEQA Guidelines section 15130 includes the following additional guidance.

- Subdivision (a)(1) – An EIR should not discuss cumulative impacts which do not result in part from the project evaluated in the EIR.
- Subdivision (a)(2) – When the combined cumulative impact associated with the project's incremental effect and the effects of other projects:
  - Is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR
  - Is less than significant, the lead agency shall identify facts and analysis supporting this conclusion
- Subdivision (b) – The discussion of cumulative impacts:
  - Shall reflect the severity of the impacts and their likelihood of occurrence
  - Need not provide as great detail as is provided for the effects attributable to the project alone
  - Should be guided by the standards of practicality and reasonableness

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6 "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 (State CEQA Guidelines, §15065, subd. (a)(3)).

  - Should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact
  - Should discuss the geographic (spatial) limits of a cumulative effect; for example, noise impacts are typically localized, while air quality impacts tend to disperse over a large area
  - Should discuss the timing and duration of the proposed Project relative to the past, present, and reasonably foreseeable cumulative projects identified (such as the construction season for temporary construction projects or long-term operation if applicable)

Key elements to consider when assessing cumulative impacts include:

- The type and characteristics of the resource (e.g., aesthetics, air quality, biological resources, cultural resources)
- The geographic (spatial) limits of a cumulative effect; for example, noise impacts are typically localized, while air quality impacts tend to disperse over a large area
- The timing and duration of the proposed Project relative to the past, present, and reasonably foreseeable cumulative projects identified (such as the construction season for temporary construction projects or long-term operation if applicable)

3.1 METHODOLOGY

The Project sites and location of potential impacts are presented in Table 3-1. The generalized scope of cumulative analysis by each resource/issue area is presented within Table 3-2. For the Rincon Phase 2 Decommissioning Project (Project), closely related development projects within Ventura and Santa Barbara counties that are in the planning stages, adopted, under construction, or completed were considered as outlined in Table 3-3, at the end of this section, and Figure 3-1. Information on each cumulative project was provided by the city of Carpinteria (most current list updated January 2023), county of Ventura (most current list updated June 1, 2023), and the county of Santa Barbara (most current list updated from February 1, 2023). Cumulative impacts evaluated in this EIR would likely represent a “worst-case” scenario since not all the cumulative projects will be approved, constructed, or coincide with the proposed Project activities. Additionally, other projects would likely be, or have been, subject to unspecified mitigation measures that would reduce their impacts and thereby reduce the potential for contributing to cumulative impacts.

To assess if impacts of the proposed Project and closely related projects are cumulatively considerable, this EIR considers the following circumstances: the type of resource affected; the proximity of the projects; where an impact might occur (e.g., offshore, onshore, both); when projects may occur; and the short-term, temporary nature of the proposed Project's construction impacts. The geographic scope of cumulative effects may extend beyond the scope of the direct, but not indirect, Project effects. The geographic scope of cumulative effects may be broader than that illustrated in Figure 3-1 for certain environmental disciplines where impacts could combine in broad areas (e.g., water quality and marine biological resources; this is described in each section's analysis). In addition, each project has its own implementation schedule, which may or may not overlap with the proposed Project schedule.

3.1.1 Geographic Scope of Proposed Project

The cumulative project's study area is defined as the Project sites and proposed hauling routes as defined in Table 3-1 (see Figure 2-28 for map of imported material and waste hauling routes). Where applicable, the scope of each resource evaluated includes the natural boundaries of the resource affected (e.g., topography), rather than jurisdictional boundaries. The generalized scope of cumulative analysis by resource area is presented in Table 3-2.

Table 3-1. Project Activities and Location

Project Site	Summary of Work Activities	Location(s)
Rincon Island	Removal of Island Surface Structures, Removal of Concrete and Asphalt, Removal of Contaminated Soils and Interstitial Water (as applicable) Installation of Clean Fill	Site Location and Import of Clean Fill as well as Recycling or Disposal Hauling Routes (23 to 95 miles south in Ventura and Los Angeles Counties)
SCC Parcel	Removal of Non-Native Vegetation, Installation of Materials (as applicable), and Access Improvements	Site Location and Waste and Imported Material Hauling Routes (18 to 41 miles south in Ventura County)
Onshore Pipeline Connections	Decommissioning of the Pipelines from the Causeway Abutment to the Vault Box (Herein Referred to as the "OPC")	Site Location and Recycling Receiving Facility

Project Site	Summary of Work Activities	Location(s)
		Hauling Route (23 to 95 miles south in Ventura and Los Angeles Counties)
Onshore Facility	Site Remediation Removal of Contaminated Soils Installation of Clean Fill	Site Location and Recycling, Import of Materials, or Waste Hauling Routes (26 to 50 miles south in Ventura County)

Table 3-2. Generalized Scope of Cumulative Analysis by Resource/Issue Area

Resource Area	Geographic Scope of Cumulative Analysis: Localized	Geographic Scope of Cumulative Analysis: Regional
Aesthetics	Project Site	Not Applicable
Air Quality	Not Applicable	Ventura County Air Pollution Control District
Biological Resources	Project Site	Ventura County and adjacent State Waters (less than 3 geographic miles from Project site)
Cultural/Tribal Cultural Resources	Project Site	Ventura County
Geology and Coastal Processes	Project Site	Southern California
Greenhouse Gas Emissions	Not Applicable	Ventura County Air Pollution Control District
Hazards and Hazardous Materials	Project Site	Ventura County
Hydrology and Water Quality	Project Site	Ventura County and Offshore (Santa Barbara Channel)
Land Use and Planning	Project Site	Ventura and Santa Barbara Counties
Noise	Project Site	Not applicable
Recreation	Project Site	Ventura and Santa Barbara Counties
Transportation and Traffic	Project Site	Ventura and Los Angeles Counties

Resource Area	Geographic Scope of Cumulative Analysis: Localized	Geographic Scope of Cumulative Analysis: Regional
Utilities and Service Systems	Project Site	Ventura County
Wildfire	Project Site	Ventura County

3.1.2 Project Timing

As indicated in Section 2.8, Schedule, the proposed Project is estimated to require approximately 653 days (approximately 2 years), to complete (with the exception of Onshore Facility Remediation Option 3, where soil treatments would extend over an additional 72 months). However, the proposed activities may not occur sequentially, and may overlap dependent upon a variety of factors related to access, permit restrictions, or contractor and equipment availability. Remediation activities could commence as soon as funding is available, and permits have been secured.

3.1.3 Cumulative Projects Related to Proposed Project

This section describes the cumulative projects located within the geographic scope of the proposed Project and having the potential for similar impacts. A summary of these cumulative projects is provided in Table 3-3 and depicted in Figure 3-1.

Table 3-3. Summary of Relevant Cumulative Projects in the Project Site Vicinity

Project or Applicant	Project Description	Status
City of Carpinteria		
Chevron	Decommissioning and Remediation of the Carpinteria Oil and Gas Processing Facilities (21-2128-DP/CDP)	Application being reviewed (project review complete as of 3/8/22, CEQA analysis in progress, awaiting completion and permit approval)
City of Carpinteria	Rincon Multi-Use Trail -- Recreational Trail Improvements – 2,800 feet (19-2015-CUP/CDP) Same as County of Santa Barbara project below	Proposed, CEQA review in progress (ID No. 25)
County of Santa Barbara		

Project or Applicant	Project Description	Status
County of Santa Barbara	Highway 101 Widening – Segment 4B and 4C: 4.5-mile HOV (high occupancy vehicle) lane in both the northbound and southbound directions (111-111-111)	Approved by the County – Work in progress
County of Santa Barbara	Rincon Multi-Use Trail: 2,800 feet of Recreational Trail Improvements (17DVP-00000-00005) Same as City of Carpinteria project above	CEQA review In progress
County of Ventura		
Caltrans	Modification of Parking Plan for Parking Area at Punta Gorda Beach Parking Lot - 5900 Pacific Coast Highway (PCH) (ZC22-1363): Site Plan Adjustment involving modification of Parking Plan for the Parking Area at Punta Gorda between Mussel Shoals and Mobile Pier Road to provide traffic calming measures such as parking bumpers and speed bumps to discourage illegal use of parking facilities for racing.	Approved 11/22/22 Project completed
Caltrans	VEN-1 Cold Plane and Overlay AC Pavement Project on State Route 1 (PL22-0002)	Coastal Commission review
Longwill	Lot Merger and Home Improvements - 6772 Breakers Way: Lot Merger and Construction of Attached Garage (384 sq ft) and Additional Habitable Space (622 sq ft), Replacement septic tank effluent pump system (PL22-0033)	Approved 4/26/23
Crampton	Replacement of 100 feet of Shoreline Protection Device between APN 060-0-420-025 and	CEQA review in progress

Project or Applicant	Project Description	Status
	060-0-420-035 at 3548 and 3550 West Pacific Coast Highway in the Faria Beach Community (PL21-0055)	
Holmgren	Repair of Rock Revetment on the South Side of 3164 and 3154 Solimar Beach Drive (PL23-0034)	Application completeness review in progress
Coast Ranch	Remediation of Contaminated Soil and Groundwater (5750 Pacific Coast Highway, Ventura County) APN: 060-0-010-042	Site Investigation Completed in 2022 No proposed Project at this time

3.1.3.1 City of Carpinteria Projects

Chevron – Decommissioning and Remediation of the Carpinteria Oil and Gas Processing Facilities. This project proposes demolition of existing buildings and infrastructure as well as remediation of contaminated soils from Chevron's Carpinteria Oil and Gas Processing Facility located at 5675 Carpinteria Avenue, off of Dump Road, in Carpinteria. The application was submitted and determined to be complete in March 2022. The City is currently preparing an Environmental Impact Report (EIR) for the project.

City of Carpinteria (as well as County of Santa Barbara/Caltrans/Santa Barbara County Association of Governments) - Rincon Multi-Use Trail. This project is a portion of the Rincon Multi-Use Trail that is also included in the County projects below. The project includes a total of approximately 2,800 feet of public multi-use trail between the eastern terminus of Carpinteria Avenue in the City of Carpinteria and the western terminus of the Rincon Beach County Park parking lot. Approximately 850 feet is located within City limits. The project involves City and Caltrans rights-of-way and is located within Assessor Parcel Numbers 001-220-032, -092, -100, and -101. This portion of the project is pending permit authorization, as the City Council voted in March 2022 to support appeals filed regarding certification of the project EIR. Therefore, additional CEQA analysis is required.

3.1.3.2 County of Santa Barbara Projects

Santa Barbara County - Highway 101 Widening – Segment 4B and 4C (PM 4.6 to 9.2). This project adds a part-time, continuous access 4.5-mile-high occupancy vehicle (HOV) lane in both the northbound and southbound directions. Segment

4B is located between postmile (PM) 4.6 to 7.5 between the city of Carpinteria and Summerland. Segment 4C is located between PM 7.5 to 9.2 in Summerland. The project has been approved by the County and is in progress.

Santa Barbara County - Rincon Multi-Use Trail. The proposed City of Carpinteria - Rincon Multi-Use Trail would extend from the eastern end of Carpinteria Avenue, in the City of Carpinteria, to Rincon Beach County Park, in unincorporated Santa Barbara County. The new, shared-use trail would connect Padaro Lane to the west and Rincon Beach County Park to the east. As described above, project review is currently in progress, pending additional CEQA analysis.

3.1.3.3 Ventura County Projects

Caltrans - Modification of Parking Plan for Parking Area at Punta Gorda. This project includes a Site Plan Adjustment involving modification of the Parking Plan for the Parking Area at Punta Gorda. A permit was authorized by the County to Caltrans to construct traffic calming measures such as parking bumpers and speed bumps to discourage illegal use of parking facilities for racing. The project was approved in November 2022, and construction was completed by June 2023. Therefore, this project is no longer considerable regarding potential cumulative impacts.

Caltrans – VEN-1 Cold Plan and Overlay AC Pavement Project. This project would occur on State Route 1 (PCH) between State Beach Access Road and Mobile Pier Road. The project's scope includes various roadway improvements as well as installation of two crosswalks near the Mondos Beach area. All work will occur within a Caltrans right-of-way. The project is currently being reviewed by the California Coastal Commission (CCC).

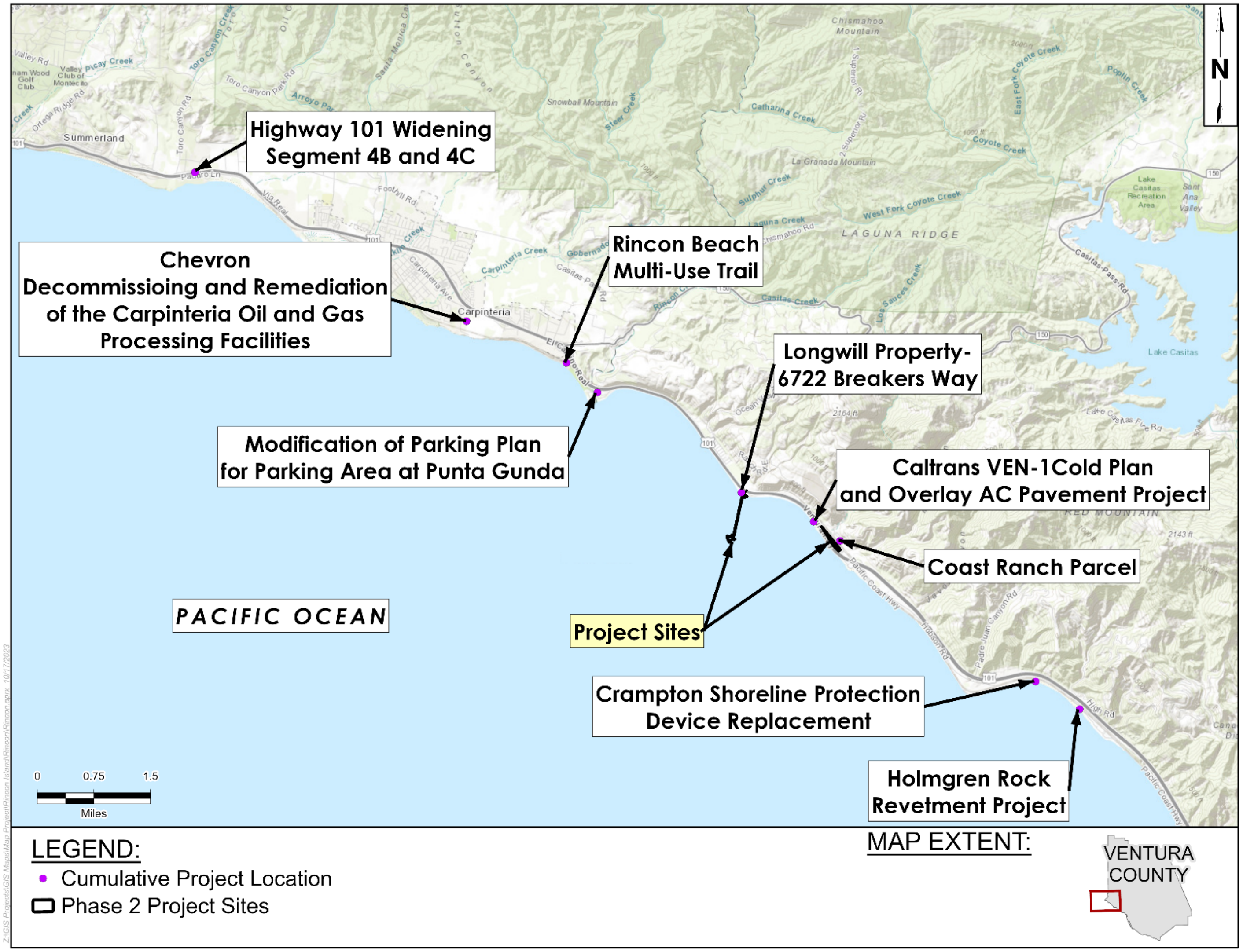
Longwill Property - 6772 Breakers Way (Mussel Shoals). The Applicant submitted an application to the County for a Coastal Development Permit to merge two lots and construct an attached garage as well as additional habitable space to an existing single-family dwelling within the Mussel Shoals community. The project was approved by the County in April 2023.

Crampton Properties – 3548 and 3550 West Pacific Coast Highway (Faria Beach). The Applicant is requesting a Coastal Development Permit for replacement of approximately 100 feet of an existing shoreline protection device. The proposed scope of work includes the installation of temporary erosion control measures, including excavation between the existing sheet pile seawall and buried wooden seawall down within 12 inches of existing formation with a total disturbed area of 1,560 square feet consisting of 440 cubic yards of grading with approximately 32 cubic yards of cut. The proposed scope of work also includes construction of a reinforced concrete seawall behind the location of an existing steel sheet pile seawall. The proposed seawall will have a horizontal footing of 8 feet, a width of 24 inches, and a 51-inch by 42-inch pile cap with a height elevation datum of 16.1 ± feet above the North America Vertical Datum of 1988 (NAVD88). The replacement wall will be backfilled with imported fill. The project status indicates that environmental document preparation is in progress and is pending certification or permit authorization.

Holmgren Properties - 3154 and 3164 Solimar Beach Road (Solimar Beach Colony). Following issuance of an emergency permit, the Applicant is requesting to repair the rock revetment on the south side of 3164 and 3154 Solimar Beach Drive. The rock revetment is located on APN 060-0-330-080 and is owned by Solimar Beach Colony Trust. In this area, the property owners are required to maintain the portion of the revetment adjoining their homes. As noted by the County, due to recent high surf, significant rainfall, and floating debris in the water, many of the large rocks supporting the revetment have become dislodged and have fallen onto the adjacent sand. As stated, the project objective is to return the revetment to its original configuration and maintain its function and integrity. The work will maintain the original footprint, location, design height, and shape of the previously approved revetment and will not involve any significant reconstruction of the existing revetment. The application is currently being reviewed for completeness.

Coast Ranch - 5750 Pacific Coast Highway, Ventura County. An investigation of soil and groundwater contamination at the Coast Ranch parcel (APN 060-0-010-042) was completed in 2022. This investigation was done in order to provide background data for planning of the Rincon Island Phase 2 Decommissioning Project activities, since the Coast Ranch property is located immediately adjacent and upgradient to the Onshore Facility parcel. As described in Section 2 above, it was confirmed during this investigation that soil and groundwater contamination is present at the Coast Ranch parcel. Although the property owner has not filed an application with any agency regarding a potential project at the Coast Ranch parcel, if these activities were to occur at the same time as the proposed Project, cumulative impacts could result. Therefore, for the purposes of this EIR, remediation of Coast Ranch is included as a cumulative project to consider.

Figure 3-1. Cumulative Projects Map



4.0 ENVIRONMENTAL IMPACT ANALYSIS

Pursuant to State California Environmental Quality Act (CEQA) Guidelines Article 5, Section 15060[7], the California State Lands Commission (CSLC) staff conducted a preliminary review of the proposed Rincon Phase 2 Decommissioning Project (Project) within the Feasibility Study (July 2022) and determined that there is a potential for significant impacts resulting from the proposed Project. A preliminary list of environmental issues to be discussed in this Environmental Impact Report (EIR) is provided in Table 4-1 below. Based on initial scoping, the Project is not anticipated to impact the following resource areas identified in State CEQA Guidelines Appendix G (Environmental Checklist Form).

- Agricultural and Forestry Resources
- Energy
- Mineral Resources
- Population and Housing
- Public Services

The proposed Project has the potential for significant impacts to the following resource areas; discussions of these resource areas are provided in Sections 4.1 through 4.15.

- 4.1 - Aesthetics
- 4.2 - Air Quality
- 4.3 - Biological Resources
- 4.4 - Cultural Resources
- 4.5 - Cultural Resources – Tribal
- 4.6 – Geology and Coastal Processes
- 4.7 - Greenhouse Gas Emissions
- 4.8 – Hazards and Hazardous Materials
- 4.9 - Hydrology and Water Quality
- 4.10 - Land Use and Planning
- 4.11 - Noise
- 4.12 - Recreation
- 4.13 - Transportation and Traffic
- 4.14 - Utilities and Service Systems
- 4.15 - Wildfire

The analysis included within each section contains a breakdown of potential impacts related to each of the Rincon Phase 2 Decommissioning Project sites.

7 CEQA Guidelines - Office of Planning and Research (ca.gov)

Table 4-1. Summary of Project Analysis

Resource Area	Summary of Analysis	Analyzed in Section
Aesthetics	The analysis examines visual impacts from several representative viewpoints.	Section 4.1
Agricultural and Forestry Resources	There are no agricultural or forestry resources within or near the Project sites.	Excluded from Further Analysis Based on Initial Scoping
Air Quality	The analysis examines emissions of criteria air pollutants and dust generated from decommissioning activities. The analysis examines proposed Project emissions of greenhouse gases (GHGs) resulting from decommissioning activities.	Section 4.2
Biological Resources	The analysis examines potential decommissioning impacts on biological resources (e.g., permanent loss or temporary disturbance to vegetation and wildlife habitat). The analysis also examines the effects of proposed Project activities on federally or State-listed species or other sensitive species; conflicts with any local policies on biological resources; and any conflicts with local, regional, or State habitat conservation plans.	Section 4.3
Cultural Resources	The analysis examines Project impacts to historic and architectural resources due to ground disturbance during decommissioning.	Section 4.4
Cultural Resources – Tribal	In accordance with Assembly Bill (AB) 52 and CEQA requirements, the analysis addresses the presence of and impacts to tribal cultural resources in consultation with Native American Tribes.	Section 4.5
Energy	The proposed Project does not anticipate the potential for wasteful, inefficient, or unnecessary consumption of energy resources.	Excluded from Further Analysis Based on Initial Scoping

Resource Area	Summary of Analysis	Analyzed in Section
Geology and Coastal Processes	The analysis examines potential decommissioning impacts primarily associated with the potential for soil erosion and natural coastal processes, including nearshore sediment transport.	Section 4.6
Greenhouse Gas Emissions	The analysis examines emissions of GHGs resulting from decommissioning activities.	Section 4.7
Hazards and Hazardous Materials	The analysis examines hazards and hazardous materials resulting from decommissioning activities (e.g., waste management and potential for accidental release of a hazardous material).	Section 4.8
Hydrology and Water Quality	The analysis examines potential decommissioning-related impacts to erosion and sedimentation inducement, groundwater, and marine water quality.	Section 4.9
Land Use and Planning	The analysis examines the County's General Plan and Local Coastal Program (LCP) for applicable policies and standards as they relate to decommissioning activities.	Section 4.10
Mineral Resources	Oil and gas wells located on the Rincon Island and Onshore Facility Project sites were plugged and abandoned during Phase 1 activities. The Project would not affect access to nearby mineral resources.	Excluded from Further Analysis Based on Initial Scoping
Noise and Vibration	The analysis examines Project impacts to ambient noise and vibration levels resulting from decommissioning activities.	Section 4.11
Population and Housing	The Project is temporary and would not require a change in the number of employees that would require permanent housing locally, as it would require only short-term decommissioning activities. The Project would neither	Excluded from Further Analysis Based on Initial Scoping

Resource Area	Summary of Analysis	Analyzed in Section
	induce substantial population growth in the area nor displace any people or housing units.	
Public Services	The Project is temporary and would not likely result in substantial demand for law enforcement, fire protection, and other public services.	Excluded from Further Analysis Based on Initial Scoping
Recreation	The analysis examines proposed Project impacts to recreational activities, including surfing, and beach access during and after decommissioning activities.	Section 4.12
Transportation and Traffic	The analysis examines Project decommissioning impacts to transportation and public access to roads and highways.	Section 4.13
Utilities and Service Systems	The proposed Project is temporary and would not result in additional demand for water or wastewater treatment. However, the Project would require solid waste disposal services, therefore analysis with respect to this resource is included.	Section 4.14
Wildfire	The analysis examines proposed Project impacts on wildfire risk. Although a portion of the proposed Project is located nearshore or offshore, a portion of the causeway and SCC Parcel, as well as the OPC and Onshore Facility, are located in a high fire hazard severity zone as identified by Cal FIRE and vegetation surrounds some Project sites.	Section 4.15

4.1 AESTHETICS

This section describes existing public views and the visual character of onshore and offshore environments within the proposed Project sites. The section also identifies applicable significance criteria and assesses the Project's potential impacts to aesthetics and their significance.

4.1.1 Methodology

4.1.1.1 Visual Sensitivity

Visual sensitivity is defined as the public's attitudes about specific views, or interrelated views, and is a key factor in assessing how important a visual impact may be and whether or not it represents a significant impact. The importance of the affected landscape is inferred from the following indicators of sensitivity (High, Medium, and Low Sensitivity), as derived from the U.S. Department of Transportation Guidelines for Visual Impact Assessment (2015).

- **High Sensitivity** suggests that some part of the public would react strongly to a threat to visual quality. Concern is expected to be great because the affected views are unique, rare, or otherwise special to the region or locale. A highly concerned public is assumed to be more aware of any level of adverse change and less tolerant than a public that has little concern. A small modification of the existing landscape may be visually distracting to a highly sensitive public and represents a substantial reduction in visual quality. Indicators of high visual sensitivity include:
  - Views of and from areas the aesthetic values of which are protected in laws, public regulations and policies, and public planning documents
  - Views of and from designated areas of aesthetic, recreational, cultural, or scientific interest, including national, State, county, and community parks, reserves, memorials, scenic roads, trails, interpretive sites of scientific value, scenic overlooks, recreation areas, and historic structures, sites, and districts
  - Views of and from areas or sites of cultural/religious importance to Native Americans
  - Views from national- or State-designated scenic highways or roads, or designated scenic highways or roads of regional importance
  - Views from resort areas
  - Views from urban residential subdivisions

  - Views from segments of travel routes, such as roads, rail lines, pedestrian and equestrian trails, and bicycle paths near designated areas of aesthetic, recreational, cultural, or scientific interest leading directly to them. Views seen while approaching an area of interest may be closely related to the appreciation of the aesthetic, cultural, scientific, or recreational significance of that destination
- **Moderate Sensitivity** suggests that the public would probably voice some concern over substantial visual impacts. Often the affected views are secondary in importance or are similar to others commonly available to the public. Noticeably adverse changes would probably be tolerated if the essential character of the views remains dominant. Indicators of moderate visual sensitivity include:
  - Views from segments of travel routes near highly sensitive use areas of interest, serving as a secondary access route to those areas
  - Views from rural residential areas and segments of roads near them which serve as their primary access route
  - Views of and from undesignated but protected or popularly used or appreciated areas of aesthetic, recreational, cultural, or scientific significance at the local, county, or State level
  - Views from highways or roads locally designated as scenic routes and of importance only to the local population, or informally designated as such in literature, road maps, and road atlases
  - Views from travel routes, such as roads, trails, bicycle paths, and equestrian trails leading directly to protected or popularly used undesignated areas important for their aesthetic, recreational, cultural, or scientific interest
  - Views of and from religious facilities and cemeteries
- **Low Sensitivity** is considered to prevail where the public is expected to have little or no concern about changes in the landscape. This may be because the affected views are not "public" (inaccessible to the public) or because there is no indication that the affected views are valued by the public. For instance, little public concern for aesthetics is assumed to pertain to views from industrial, commercial, and purely agricultural areas, with some exceptions (e.g., some agricultural areas are prized for their open space value, and views of such are highly sensitive). Visual sensitivity is considered low for views from all sites, areas, and travel routes not identified as moderate or high in sensitivity. Indicators of low visual sensitivity include:
  - Views from travel routes serving as secondary access to moderately sensitive areas

- o Views from farmsteads, or groupings of fewer than four residences; and
- o Views from industrial research/development, commercial, and agricultural use areas

4.1.1.2 Visual Character

The visual character of a landscape is typically described in terms of its landforms, vegetation, water features, and the "built" features of the environment. The current visual quality of the physical environment is described as its existing visual condition, and any changes to that baseline are defined in terms of the four Visual Modification Classes (VMC) outlined in Table 4.1-1.

Table 4.1-1. Visual Modification Class (VMC) Definitions

VMC	Definition
1	**Not noticeable** Changes in the landscape are within the field of view but generally would be overlooked by all but the most concerned and interested viewers; they generally would not be noticed unless pointed out (inconspicuous because of such factors as distance, screening, low contrast with context, or other features in view, including the adverse impacts of past activities).
2	**Noticeable, visually subordinate** Changes in the landscape would not be overlooked (noticeable to most without being pointed out); they may attract some attention but do not compete for it with other features in the field of view, including the adverse impacts of past activities. Such changes often are perceived as being in the background.
3	**Distracting, visually co-dominant** Changes in the landscape compete for attention with other features in view, including the adverse impacts of past activities (attention is drawn to the change about as frequently as to other features in the landscape).
4	**Visually dominant, demands attention** Changes in the landscape are the focus of attention and tend to become the subject of the view; such changes often cause a lasting impression on the affected landscape.

Source: VMC definitions are adapted from the U.S. Bureau of Land Management (U.S. BLM) Manual 8431 (1986)

4.1.2 Environmental Setting

The proposed Project sites are located within and adjacent to the Pacific Ocean along the coastline of northern unincorporated Ventura County. Specifically, Rincon Island and the Rincon Island Causeway (causeway) are located adjacent to the residential community of Mussel Shoals near Punta Gorda (Figure 1-2). The State Coastal Conservancy (SCC) Parcel is located south of the Mussel Shoals residential community and adjacent to Mussel Shoals beach. The Onshore Pipeline Connections (OPC) are located mainly underground and terminate within a vault box located on the northeast side of the Union Pacific Railroad (UPRR) right-of-way and U.S. Highway 101. The Onshore Facility is located south and approximately 1.3 miles east of Rincon Island between U.S. Highway 101 and State Route 1 (SR 1 or Pacific Coast Highway [PCH]). Figure 4.1-1, Representative Site Photographs and Surrounding Area, provides an overview of the existing visual character at the proposed Project sites and adjacent vicinity.

Rincon Island and Causeway Access. Rincon Island has been cleared of the former oil and gas processing equipment, and what remains includes an interior concrete pad and three small buildings surrounded by Rincon Island's original tetrapod and riprap perimeter as well as sporadic palm trees and vegetation (Figure 4.1-1, Photos A, B, and C). The entrance to the causeway and Island includes a locked fenced area atop a human-made abutment surrounded with riprap protection (Figure 4.1-1, Photo E). Rincon Island and the associated causeway are a visual landmark for the Mussel Shoals area community and adjacent beaches. These features are visible from U.S. Highway 101 and PCH, which is listed by the County of Ventura as an eligible scenic highway for the State of California (Caltrans 2021). Although Rincon Island is located within the scenic coastal area of California, it is not included within the County's "Scenic Resources Protection Map," which includes areas primarily limited to scenic views of inland lakes and streams (Ventura County 2020). However, Rincon Island is considered highly sensitive in terms of visual sensitivity. The public has voiced concerns over a change in this aesthetic, and it is visible from a number of public viewpoints.

SCC Parcel. The SCC Parcel is currently developed with interspersed native and non-native ground cover vegetation, informal walking paths, a statue and wooden bench on the back of the parcel, and includes a portion of a partially riprap-armored beach cove (Figure 4.1-1, Photo G). The SCC Parcel is visible by both onshore and offshore recreational users of this area. Due to the location of the SCC Parcel in front of the existing residential community and adjacent to Mussel Shoals Beach, it is considered a highly sensitive visual area for potential aesthetic impacts.

Onshore Pipeline Connections. The OPC are located mainly underground and terminate within a vault box located on the northeast side of the railroad right-of-way and U.S. Highway 101. The OPC vault box is a primarily subsurface concrete structure with a metal roof that rises above ground level approximately 2 feet (Figure 4.1-1, Photo H). The vault box is considered low in sensitivity. Views of this area are partially obstructed by the existing railroad right-of-way, and the vault box is located along the shoulder of a roadway with no other important visual features.

Onshore Facility. The Onshore Facility can be seen from U.S. Highway 101 and PCH. The oil and gas wells on the Onshore Facility were plugged and abandoned, and the oil and gas processing equipment cleared as part of Phase 1 (Figure 4.1-1, Photo I). Several large eucalyptus tree stands and brush vegetation are located within the interior of the Onshore Facility. Since the Onshore Facility includes biological habitat, including Los Sauces Creek, and can be seen from U.S. Highway 101 and PCH, this area is considered moderate with respect to visual sensitivity.

Figure 4.1-1. Representative Site Photographs and Surrounding Area

Figure	Description
	Photo A. View of Rincon Island and Causeway from Residential Homes at Mussel Shoals Along Breakers Way (looking Southwest)

Figure	Description
	Photo B. View of Rincon Island and Causeway from Bike Path Located West of the Project Site and Parallel to U.S. Highway 101 (looking Southeast)
	Photo C. Rincon Island Following Completion of Phase 1 (Looking North)

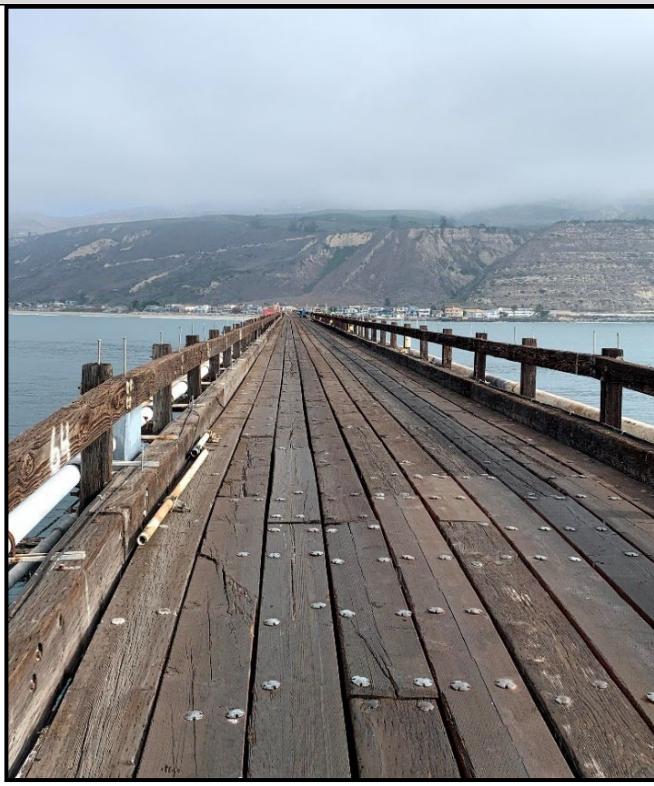
Figure	Description
	Photo D. Causeway Leading from Rincon Island Back to Shore (Looking North)
	Photo E. Fenced Facility Entrance to Rincon Island and Causeway (Looking South)

Figure	Description
	Photo F. Residential Homes and Beach Area at Mussel Shoals (Looking West)
	Photo G. Residential Homes and SCC Parcel Area at Mussel Shoals (Looking East)

Figure	Description
	Photo H. Onshore Pipeline Connections (OPC) Area
	Photo I. Onshore Facility Following Completion of Phase 1

4.1.3 Regulatory Setting

There are no federal regulations, authorities, or administering agencies that regulate aesthetic or visual resources that are specifically applicable to the Project. State laws, regulations, and policies regarding visual resources including the California Scenic Highway Program (Sts. & Hwy. Code § 260 et seq.), and California Coastal Act (CCA) Chapter 3, Sections 30251 and 30253, are discussed in Appendix B. Local laws, regulations, and policies are discussed below.

4.1.3.1 Local

Ventura County 2040 General Plan (2020)

The Project sites are located within the coastal zone of Ventura County. In addition to applying the policies in the CCA, Ventura County considers "the scenic and visual qualities of coastal areas [to] be considered protected as a resource of public importance."

Conservation and Open Space Element Policies

Policies included within the Ventura County 2040 General Plan Conservation and Open Space Element (Ventura County 2020) include the following related to protection of aesthetic resources:

- **Policy COS-3.6: Open Space Character**. The County shall require discretionary development outside of existing communities to be planned and designed to maintain the scenic open space character of the surrounding area, including view corridors from highways. Discretionary development should integrate design, construction, and maintenance techniques that minimize the visibility of structures from public viewing locations within scenic vistas.

Land Use and Community Character Element Policies

Policies included within the Ventura County 2040 General Plan Land Use and Community Character Element (Ventura County 2020) include the following related to protection of aesthetic resources:

- **Policy LU-16.1: Community Character and Quality of Life.** The County shall encourage discretionary development to be designed to maintain the distinctive character of unincorporated communities, to ensure adequate provision of public facilities and services, and to be compatible with neighboring uses.

Ventura County Coastal Area Plan

Local policies or regulations applicable to this area with respect to aesthetics are listed below:

- **Visual Resources: (Signs) Policy 1.** Signs shall be designed and located to minimize impacts to scenic resources, including views to and along the ocean and other scenic coastal areas.
- **Visual Resources: (Signs) Policy 2.** Signs shall be visually compatible with surrounding areas.

4.1.4 Significance Criteria

According to the Ventura County Initial Study Assessment Guidelines (Ventura County 2011), a project has the potential to create a significant impact to scenic resources if it:

- Is located within an area that has a scenic resource that is visible from a public viewing location; and
- Would physically alter the scenic resource either individually or cumulatively when combined with recently approved, current, and reasonably foreseeable future projects; or
- Would substantially obstruct, degrade, or obscure the scenic vista, either individually or cumulatively when combined with recently approved, current, and reasonably foreseeable future projects.
- Any project that is inconsistent with the pertinent policies of the Ventura County General Plan Goals, Policies, and Program or policies of the applicable Area Plan (above), will result in a potentially significant environmental impact.

4.1.5 Impact Analysis and Mitigation

The visual resources assessment focuses on identifying potentially significant impacts to public views in which the proposed Project would be most visible. Critical views are partly defined as those that are moderately to highly sensitive. The public is considered to have substantial concern over adverse changes in the quality of such views. Critical views are also defined as those public views that would be most affected by the subject action due to viewer proximity to the Project and the duration of the affected view. In this instance, critical views surrounding the proposed Project sites are considered those from Mussel Shoals Beach as well as those from U.S. Highway 101 and PCH, or the adjacent bike path looking towards the offshore Project site. A discussion of potential Project impacts of each Project component and recommended Mitigation Measures (MMs) are provided below.

Impact AES-1: Temporary Effects on Public Views from Decommissioning Activities

Decommissioning activities would have temporary impacts to public views for approximately 24 to 72 intermittent months **(Less than Significant with Mitigation).**

Impact Discussion

There are public views of the Rincon Island Project site from recreational users of Mussel Shoals Beach, as well as motorists along U.S. Highway 101 (both directions), PCH, and recreational bicyclists or pedestrians utilizing the parallel bike path along the southbound shoulder of U.S. Highway 101 in the Mussel Shoals area. The Rincon Island and SCC Parcel Project sites can also be seen from offshore boaters and other offshore recreational users. The Onshore Facility and OPC can also be seen from motorists along U.S. Highway 101. A summary of the existing visual sensitivity and anticipated resulting change to aesthetics during the proposed decommissioning activities is provided in Table 4.1-2. A discussion of potential impacts at each Project site is provided below.

Table 4.1-2. Project Sites: Existing Visual Sensitivity and Anticipated Resulting Change to Aesthetics During Proposed Decommissioning Activities

Project Site	Existing Visual Sensitivity	Potential Project Impacts	Resulting Visual Modification Class
Rincon Island (Including Public Facilities Retention Option)	High Sensitivity	• Temporary Introduction of Construction Equipment • Temporary Staging of Materials • Temporary Increase in Traffic for Import and Export of Materials	2 – Noticeable, Visually Subordinate

Project Site	Existing Visual Sensitivity	Potential Project Impacts	Resulting Visual Modification Class
SCC Parcel Improvements (Options 1 – 3)	High Sensitivity	• Temporary Introduction of Construction Equipment for Removal of Non-Native Vegetation and Installation of Parcel Improvements • Periodic Watering Truck for 1 Year Following Replanting of Native Vegetation • Placement of Riprap Along Shoreline (Option 3)	3 – Distracting, Visually Co-Dominant (During Construction) 2 - Noticeable, Visually Subordinate (Permanent Changes)
OPC	Low Sensitivity (Vault) High Sensitivity (Ocean Avenue - Mussel Shoals Community)	• Temporary Introduction of Construction Equipment for Pipeline Decommissioning	2 – Noticeable, Visually Subordinate (Vault) 3 – Distracting, Visually Co-Dominant (Ocean Avenue Pipeline Access)

Project Site	Existing Visual Sensitivity	Potential Project Impacts	Resulting Visual Modification Class
Onshore Facility (Options 1-5)	Moderate Sensitivity	• Temporary Introduction of Construction Equipment for Onshore Remediation • Temporary Increase in Traffic for Import and Export of Materials • Temporary Installation of Steel Sheet Pile Wall (With an Approximately 1 Foot Portion Remaining Above Ground) Pending Completion of Remediation Activities	2 – Noticeable, Visually Subordinate

Rincon Island

During decommissioning activities, public views would be temporarily degraded from the presence of heavy construction equipment (e.g., excavators and loaders) and stockpiles or bins of recovered materials placed in the staging area(s) (including at the causeway entrance) prior to transport offsite. Although the use of heavy equipment during decommissioning activities would temporarily introduce construction equipment to the Rincon Island Project site, it is important to note that historical activities at Rincon Island have also recently involved use of equipment for former oil and gas production and well abandonment and demolition activities. The remaining decommissioning activities on Rincon Island would be largely shielded from the public, as this structure is approximately 3,000 feet offshore. Only staging at the causeway entrance and trucks importing and exporting materials to and from the Island would be regularly visible to the public. Although this area is considered highly sensitive, temporary visual modifications are considered to be VMC-2: noticeable, but visually subordinate. Additionally, with the implementation of **MM AES-1a, MM AES-1b,** and **MM AES-1c**, the impact would be less than significant.

<u>Public Facilities Retention Option</u>

The public facilities retention option includes a slight reduction in demolition in order to preserve the existing subsurface infrastructure necessary to support public restroom facilities. This reduction in demolition is negligible compared to the amount of demolition required to accomplish the other Rincon Island decommissioning tasks, therefore it is not expected to result in a change to potential impacts to aesthetic resources. Temporary visual modifications that would occur during decommissioning would remain as VMC-2: noticeable, but visually subordinate. Additionally, with the implementation of **MM AES-1a, MM AES-1b,** and **MM AES-1c,** the impact would be less than significant.

SCC Parcel

<u>Option 1: Native Revegetation and Access Improvements</u>

Although the SCC Parcel is located within an area that is considered highly sensitive to public views, work activities required for the proposed improvements to the SCC Parcel included within Option 1 would only be visible for approximately 10 working days (2 weeks) during non-native vegetation removal/native plant restoration, and installation of public access improvements during construction, and for bi-weekly watering using a light duty truck pulling a portable water tank for one year (26 events). During construction, hand crews would be utilized for removal of non-native vegetation in order to preserve any native vegetation that currently exists. Replacement with native species would also be done by hand. Public access improvements would include the use of two excavators and one wheeled loader. During construction, the temporary introduction of construction equipment would result in visual modifications classified as VMC-3, which is a visually distracting element to the viewshed. However, **MM AES-1a** and **MM AES-1b** would reduce potential impacts during this time; ensuring that construction equipment would be staged in the adjacent causeway entrance staging area at the end of the workday, and that equipment would be removed following completion of site improvements.

Additionally, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities. Following restoration of the Project site with native vegetation, periodic watering using a truck pulled water tank trailer would be required, but this intermittent truck would not result in a significant impact to the existing public viewshed.

With the implementation of **MM AES-1a** and **MM AES-1b,** the impact would be less than significant.

<u>Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm</u>

Option 2 would include all of the tasks and associated construction and maintenance equipment described above in Option 1, but would also necessitate the use of two excavators, one wheeled loader, and a vibratory soil compactor for an additional 10 workdays (20 workdays, or 4 weeks in total) to install the cobble back berm proposed for additional soil erosion prevention. Specifically, following removal of the non-native vegetation, a portion of the upland area would be excavated (approximately 3,800 cubic yards) in order to place a cobble back berm (Figure 2-20). Soil removed would be temporarily stockpiled. Following placement of the cobble, this area would be backfilled with approximately 3.5 feet of the original stockpiled native soil and revegetated with native plants as described above. A large portion of the cobble back berm would be subsurface and under replaced native soil and vegetation. The shoreward portion would transition as shown in Figure 2-20 to match the grade of the existing cobbles along the shoreline. Cobbles installed would be sized to match that existing naturally in this area and would not introduce an element that is visually inconsistent with what is currently present onsite.

During Option 2, construction equipment would be present for approximately 10 extra workdays (2 weeks) than that required for Option 1. During construction, the temporary introduction of construction equipment would result in visual modifications classified as VMC-3, which is a visually distracting element to the viewshed. However, **MM AES-1a** and **MM AES-1b** would reduce potential impacts during this time; ensuring that construction equipment would be staged in the adjacent causeway entrance staging area at the end of the workday, and that equipment would be removed following completion of site improvements. Additionally, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities. With the implementation of **MM AES-1a** and **MM AES-1b,** the impact would be less than significant.

<u>Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage</u>

Option 3 would include all of the tasks and associated construction and maintenance equipment described above in Option 1, but would also necessitate the use of a spider excavator and mobile crane for an additional 15 workdays (25 workdays, or 5 weeks in total) to install replacement riprap along the parcel frontage proposed for additional soil erosion prevention. The existing beach is partially armored with riprap, but has a gap where previously placed riprap was displaced. Therefore, the installation of riprap to replace what has been lost through coastal processes would be consistent with the existing viewshed and would not be visually significant.

During construction, the temporary introduction of construction equipment would result in visual modifications classified as VMC-3, as a visually distracting element to the viewshed. However, **MM AES-1a** and **MM AES-1b** would reduce potential construction impacts during this time; ensuring that construction equipment would be staged in the adjacent causeway entrance staging area at the end of the workday, and that equipment would be removed following completion of site improvements. Additionally, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities. With the implementation of **MM AES-1a** and **MM AES-1b,** the impact would be less than significant.

Onshore Pipeline Connections

The total timeframe for OPC activities is approximately 29 working days (6 weeks) of the total 2-year Project construction time period. Activities occurring at the OPC vault would be visible by motorists on northbound U.S. Highway 101; however, this area is not considered visually sensitive. During pipeline decommissioning activities at the OPC vault, a very small crew and limited equipment are required to work in this area, which is currently very sparsely developed. The introduction of the equipment and personnel for decommissioning of the OPC would not introduce an element that would significantly impair the existing viewshed during the short duration of decommissioning activities in this location. Although noticeable, activities would be visually subordinate (VMC-2) and would not compete with other features in the viewshed. A less than significant impact would result.

Additionally, approximately 10 of the proposed 29 workdays will include pipeline flushing activities, where a small crew and limited equipment would be required to access the pipelines at the southwest end of the casing from Ocean Avenue for approximately 2 weeks. During construction in this area, the temporary introduction of construction equipment to the Mussel Shoals community would also result in visual modifications classified as VMC-3, as a visually distracting element to the viewshed. However, **MM AES-1a** and **MM AES-1b** would reduce potential construction impacts during this time; ensuring that construction equipment would be staged in the adjacent causeway entrance staging area at the end of the workday, and that equipment would be removed following completion of site improvements. Additionally, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities. With the implementation of **MM AES-1a** and **MM AES-1b,** the impact would be less than significant.

Onshore Facility

<u>Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation</u>

The Onshore Facility is located within an area that is considered moderately sensitive due to its visibility from U.S. Highway 101 and PCH and existing natural biological features including stands of eucalyptus trees and the Los Sauces Creek riparian corridor that are present within the property boundaries. Option 1 would not include any active remediation of contaminated soil, but would instead utilize the existing recycled asphalt aggregate base material currently placed throughout the Project site, as well as new asphalt as a surface cap across the areas of contaminated soil onsite. The 750-foot steel sheet pile wall driven between the Onshore Facility and upgradient Coast Ranch parcel would remain approximately 1 foot above the ground surface until remediation of both sites is complete. Remediation of groundwater would be conducted using in-situ (in-place) bioremediation methodology. As such, construction equipment would be limited to equipment required for installation of the sheet pile wall prior to construction, a drilling rig for 18 days during groundwater well installation and heavy equipment (1 excavator, loader, and dozer) for 5 days for surface cap construction. Additionally, groundwater monitoring activities during the 5-year timeframe would require one personnel vehicle to make periodic trips onsite (approximately 10 workdays over 5 years).

During these activities, construction equipment and trucks would be visible from U.S. Highway 101 and PCH. Although the Onshore Facility is currently cleared of equipment, this area was previously developed in support of oil and gas processing, and equipment was recently used there for well abandonment and demolition activities. The temporary use of equipment in this area would not be out of character or create a visual element that would dominate the viewshed. A noticeable, but visually subordinate impact (VMC-2) would result. With the implementation of **MM AES-1a, MM AES-1b,** and **MM AES-1c**, the impact would be less than significant.

<u>Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation</u>

Option 2 includes installation of the sheet pile wall as described in Option 1 above, as well as excavation of the existing contaminated soil and trucking (hauling) it, as non-hazardous waste, to an offsite disposal facility. Approximately 7,500 cubic yards of petroleum hydrocarbon-contaminated soil would be excavated to an estimated depth of 10 feet below ground surface (bgs). The area of disturbance would be approximately 0.48 acre. Groundwater contamination would be addressed through pump and treat techniques. Monitoring would be conducted for a period of approximately 1 year following completion of soil remediation activities.

Work activities for Option 2 are anticipated to take a maximum of approximately 45 workdays (9 weeks) of construction to achieve the regulatory specifications required for cleanup. Construction equipment would include an excavator, loader, dozer, hauling trucks, a generator, tanks, hollow-stem auger drilling rig, and support trucks. Hauling trips required in support of this sub-option would be for equipment mobilization and demobilization as well as approximately 675, 18-ton capacity end dump trucks for soil removal and another 675 trucks for import of clean soil. An additional 4 workdays over 1 year would be required during groundwater remediation activities.

During Option 2, construction equipment and trucks would be visible from U.S. Highway 101 and PCH. As discussed under Option 1 above, the temporary use of equipment in this area would not be out of character or create a visual element that would dominate the viewshed. A noticeable, but visually subordinate impact (VMC-2) would result. With the implementation of **MM AES-1a, MM AES-1b,** and **MM AES-1c**, the impact would be less than significant.

Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation

Remediation Option 3 includes installation of the sheet pile wall as described in Option 1 above, as well as excavation of the existing contaminated soil and using an onsite soil bioremediation land treatment to remediate existing contamination. Option 3 would require an area approximately 18,205 square feet or 0.4 acre, at depths of up to 11 feet, west of Los Sauces Creek to be utilized in support of the land treatment option. Work activities for Option 3 are anticipated to require a maximum of approximately 57 workdays (12 weeks) of initial work but would also require periodic watering and tilling 1 day per week for approximately 72 months (6 years) to achieve the regulatory specifications for cleanup. This methodology would avoid hauling contaminated soil from the Project site for disposal, but would still generate approximately 1,944 trips to handle material onsite.

During Option 3, construction equipment and trucks would be visible from U.S. Highway 101 and PCH. As discussed under Option 2 above, the temporary use of equipment in this area would not be out of character or create a visual element that would dominate the viewshed. A noticeable, but visually subordinate impact (VMC-2) would result. With the implementation of **MM AES-1a, MM AES-1b,** and **MM AES-1c**, the impact would be less than significant.

Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation

Following installation of the sheet pile wall as described in Option 1 above, Option 4 would include the use of either an excavator or a large diameter flight auger to facilitate in-situ mixing of petroleum hydrocarbon-containing soil with a common reagent such as Portland cement to solidify and stabilize in-place the petroleum hydrocarbon-containing soil. Work activities for Option 4 would require a maximum of approximately 55 workdays (11 weeks) of construction to complete. An additional 10 workdays (2 weeks) would be required in support of in-situ groundwater bioremediation. Hauling trips required in support of this option would be for equipment mobilization and demobilization, installation of the sheet pile wall, and approximately 10, 120-ton capacity bulk cement truck trips. Although Option 4 requires construction equipment for a similar timeframe as Option 2, Option 4 would only require 10 truck trips. Regardless, the temporary introduction of construction equipment and trucks to the Onshore Facility area would be visible from U.S. Highway 101 and PCH. As discussed above, the temporary use of equipment in this area would not be out of character or create a visual element that would dominate the viewshed. A noticeable, but visually subordinate impact (VMC-2) would result. With the implementation of **MM AES-1a, MM AES-1b,** and **MM AES-1c**, the impact would be less than significant.

Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation

Following installation of the sheet pile wall as described in Option 1 above, Option 5 would include localized excavation of the Onshore Facility to depths of approximately 3 feet, for an estimated total removal volume of 2,300 cubic yards. Option 5 was designed to minimize the proposed area of disturbance and resulting truck trips and equipment required to perform the work. As such, only 25 workdays (5 weeks) of construction are required. An additional 10 workdays (2 weeks) would be required in support of in-situ groundwater bioremediation. During this time, the temporary use of equipment in this area would not be out of character or create a visual element that would dominate the viewshed. A noticeable, but visually subordinate impact (VMC-2) would result. With the implementation of **MM AES-1a, MM AES-1b,** and **MM AES-1c**, the impact would be less than significant.

Mitigation Measures

MM AES-1a: Overnight Storage of Equipment. Equipment used for Project activities shall be returned to the staging areas at the end of each workday, both for public safety and aesthetic considerations.

MM AES-1b: Material Removal at Construction Completion. All materials, equipment, and debris shall be removed from each Project site upon completion of decommissioning activities.

MM AES-1c: Minimize Night Lighting. If required, lighting shall use the minimum number of fixtures and intensity needed for decommissioning activities. Fixtures shall be focused on work areas and fully shielded to minimize visibility from public viewing areas, wildlife habitats, migration routes, and other sensitive receptors.

Impact AES-2: Long-term Changes to Aesthetics as a Result of the Proposed Project

Removal of the existing buildings from Rincon Island, proposed improvements to the SCC Parcel, and Onshore Facility remediation would result in permanent changes to the existing viewsheds **(Less than Significant/Beneficial)**.

Impact Discussion

The proposed Project includes a number of activities that would return the areas to a more natural condition and improve the existing viewsheds, but would also have the potential to introduce a permanent change to the existing aesthetic (SCC Parcel Option 3), as further discussed below.

Rincon Island and the Causeway

Decommissioning Rincon Island would slightly modify the existing profile of the Island, so it is devoid of any remaining industrial features. However, due to the distance from most vantage points, the modifications would not result in an impact to aesthetics. Likewise, as the causeway would also be left in place, no impact would result.

<u>Public Facilities Retention Option</u>

Retention of subsurface facilities would have no impact to public views of Rincon Island. No impact would result.

SCC Parcel

<u>Option 1: Native Revegetation and Access Improvements</u>

SCC Parcel Option 1 includes removal of non-native vegetation and replacement with native plants, as well as access improvements and the addition of a sign and bench to the parcel. These improvements would be designed to conform with the existing aesthetics, and following construction would not create a visually incompatible element to the site. The proposed site improvements are anticipated to improve the existing aesthetic through introduction of native vegetation and crushed rock to the informal trails, as well as a new concrete bench and educational signage, which would create a beneficial impact.

<u>Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm</u>

In addition to what is included in Option 1, Option 2 would include installation of a cobble back berm. As shown in Figure 2-20, the added cobble would be primarily subsurface. Following placement of the cobble, the upland area would be backfilled with approximately 3.5 feet of the original stockpiled native soil and revegetated with native plants as described in Section 2.3.2.1. The remainder of the installed cobble would transition down onto the beach and terminate within the existing gap in the riprap armament that exists on either side of the shoreline within the parcel to provide additional stability. The profile of the cobble would mimic a natural grade from the upland vegetated portion of the parcel down to the beach and intertidal area. Visually, this option would provide a gentler slope from the upland back berm to the beach. An approximately 10-foot-wide area of cobble located within the riprap armament gap would be visible but is designed to match the natural character of the site and would not be a noticeable new feature. A less than significant impact to aesthetics would result from the installation of the cobble back berm. Additionally, proposed site improvements from Option 1 including the introduction of native vegetation and crushed rock to the informal trails, as well as a new concrete bench and educational signage, would also create a beneficial impact.

<u>Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage</u>

In addition to what is included in Option 1, Option 3 would add riprap to the remaining unarmored section of beach (an area approximately 130 feet [40 meters] in length). Approximately 360 cubic yards of riprap (chosen to match the size of the riprap that currently exists onsite) would be required to complete the shoreline armoring in this area. Although the addition of riprap to this section would result in a permanent change to the existing aesthetic of the shoreline, since riprap was formerly present in this area, and is also present along the shoreline to the east and west of the gap area, the resulting visual modifications are classified as VMC-2, a noticeable but visually subordinate element to the viewshed. A less than significant impact to aesthetics would result from installation of riprap along the shoreline. Additionally, proposed site improvements from Option 1 including the introduction of native vegetation and crushed rock to the informal trails, as well as a new concrete bench and educational signage, would also create a beneficial impact.

Onshore Pipeline Connections

There are no permanent features associated with the OPC that would change as a result of the proposed Project. No impact to aesthetics would result.

Onshore Facility

Options 1 through 5

Following remediation activities at the Onshore Facility, no equipment would be present, and the area would return to its current state as an empty lot with trees and scattered vegetation within, especially along the existing riparian corridor and fence line. The only remaining Project component would include the approximately 750 linear feet of steel sheet pile wall that would remain approximately 1 foot above ground surface and in place until remediation activities are complete at the adjacent Coast Ranch Parcel. However, given the scale of this feature in relation to the ground surface, as well as surrounding vegetation onsite that would make it difficult to see from public vantage points, retention of the sheet pile wall until the adjacent remediation activities are complete would not create a significant visual impact. Further, if remediation at the adjacent Coast Ranch Parcel is completed at the same time as the Project, the sheet pile wall would not be necessary. Implementation of the Project would not result in a significant long-term change to the existing viewshed following completion of decommissioning activities.

Mitigation Measures

None required.

4.1.6 Cumulative Impacts Analysis

Impact AES-3: Potential for Cumulative Aesthetic Impacts to Public Views

Decommissioning activities would contribute to cumulative impacts if adjacent projects were conducted at the same time **(Less than Significant with Mitigation).**

Impact Discussion

The proposed Project may incrementally contribute to cumulative aesthetics impacts associated with other projects that affect public views of and from Mussel Shoals Beach. Projects that would occur near the proposed Project sites and would have the potential to affect public views include the Longwill property improvements within the Mussel Shoals residential community, which were approved by Ventura County in April 2023, as well as the Coast Ranch parcel remediation activities. Both projects would temporarily introduce construction equipment and truck traffic to the area that could result in temporary impacts to aesthetics. However, it is unclear at this time if the Longwill property improvements or Coast Ranch parcel remediation activities would occur at the same time as the proposed Project. Additionally, the Longwill property improvements are not anticipated to block public views of Mussel Shoals Beach. Public views of the Onshore Facility Project area are limited by existing perimeter vegetation onsite that partially obstructs the view. As such, and by including implementation of standard noticing practices as well as implementation of **MMs AES-1a, MM AES-1b,** and **MM AES-1c**, the Project's contribution to cumulative impacts to aesthetics would be less than significant.

Mitigation Measures

MM AES-1a: Overnight Storage of Equipment

MM AES-1b: Material Removal at Construction Completion

MM AES-1c: Minimize Night Lighting

4.1.7 Summary of Impacts and Proposed Mitigation Measures

Table 4.1-3. Summary of Aesthetic Impacts and Mitigation Measures

Impact	Mitigation Measures
Impact AES-1: Temporary Effects on Public Views from Decommissioning Activities	**MM AES-1a:** Overnight Storage of Equipment **MM AES-1b:** Material Removal at Construction Completion **MM AES-1c:** Minimize Night Lighting
Impact AES-2: Long-term Changes to Aesthetics as a Result of the Proposed Project	None Required
Impact AES-3: Potential for Cumulative Aesthetic Impacts to Public Views	**MM AES-1a:** Overnight Storage of Equipment **MM AES-1b:** Material Removal at Construction Completion **MM AES-1c:** Minimize Night Lighting

4.2 AIR QUALITY

4.2.1 Environmental Setting

4.2.1.1 Local Climate and Meteorology

The proposed Project sites are located within the South-Central Coast Air Basin (SCCAB) offshore and onshore of Ventura County and fall under the jurisdiction of the Ventura County Air Pollution Control District (VCAPCD). Ventura County can be described as having a Mediterranean climate, characterized by warm, dry summers and cooler, mildly damp winters. The unique combination of prevailing wind conditions generated by a persistent offshore high-pressure system and the topography of coastal mountains results in airflow variations that are conducive to the formation and retention of air pollutants.

4.2.1.2 Criteria Pollutants

Criteria air pollutants are those contaminants for which state and federal ambient air quality standards have been established for the protection of public health and welfare. Criteria pollutants include ozone (O_3), carbon monoxide (CO), oxides of nitrogen (NO_X), sulfur dioxide (SO_2), particulate matter with a diameter of 10 microns or less (PM_{10}), and particulate matter with a diameter of 2.5 microns or less ($PM_{2.5}$).

Ozone. Ozone (O_3) is formed in the atmosphere through a series of complex photochemical reactions involving NO_X, reactive organic gases (ROG) (also known as reactive organic compounds or ROCs), and sunlight occurring over several hours. Since ozone is not emitted directly into the atmosphere, but is formed as a result of photochemical reactions, it is classified as a secondary or regional pollutant. Because these ozone-forming reactions take time, peak ozone levels are often found downwind of major source areas. Ozone is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma, and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from exposure to ozone.

Carbon Monoxide. Carbon monoxide (CO) is primarily formed through the incomplete combustion of organic fuels. Higher CO ambient concentrations generally occur during winter when dispersion of vehicle emissions is limited by morning surface inversions. Seasonal and diurnal variations in meteorological conditions lead to lower values in summer and in the afternoon. CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause negative health effects to those with cardiovascular disease and can affect mental alertness and vision.

Nitric Oxide. Nitric oxide (NO) is a colorless gas formed during combustion processes which rapidly oxidizes in the atmosphere to form nitrogen dioxide (NO_2), a brownish gas. The highest NO_2 values are generally measured in urbanized areas with heavy traffic. Exposure to NO_2 may increase the potential for respiratory infections in children and cause difficulty in breathing even among healthy persons and especially among asthmatics.

Sulfur Dioxide. Sulfur dioxide (SO_2) is a colorless, reactive gas that is produced from the combustion of sulfur-containing fuels, such as coal and oil, and by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways, leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Particulate Matter. Ambient air quality standards have been set for two classes of particulate matter (PM): PM_{10} (coarse particulate matter less than 10 microns in aerodynamic diameter) and $PM_{2.5}$ (fine particulate matter 2.5 microns or less in aerodynamic diameter). Both consist of different types of particles suspended in the air, such as: metal, soot, smoke, dust, and fine mineral particles. Depending on the source of particulates, toxicity and chemical activity can vary. Particulate matter is a health concern because when inhaled it can cause permanent damage to the lungs. The primary source of PM_{10} emissions appears to be soil via roads, construction, agriculture, and natural windblown dust. Other sources of PM_{10} include sea salt, particulate matter released during combustion processes, such as those in gasoline or diesel vehicles, and wood burning. Fugitive dust emissions from construction sites, wood stoves, fireplaces and diesel truck exhaust are primary sources of $PM_{2.5}$. Both size classes of particulates can be dangerous when inhaled, however $PM_{2.5}$ tends to be more damaging because it remains in the lungs once it is inhaled.

4.2.2 Regulatory Setting

The U.S. Environmental Protection Agency (USEPA) has jurisdiction under the Federal Clean Air Act (CAA). The California Air Resources Board (CARB) has jurisdiction under the California Clean Air Act and California Health and Safety

Code. The USEPA and CARB classify an area as attainment, unclassified, or non-attainment, depending on whether the monitored ambient air quality data show compliance, insufficient data to determine compliance, or non-compliance with federal or State ambient air quality standards, respectively. Ventura County occasionally exceeds the federal 8-hour ozone standard and State 1-hour ozone standard. Under both Federal and State CAAs, Ventura County is an ozone nonattainment area. The county also has elevated ambient levels of PM_{10}. While the county is an attainment area for the federal PM_{10} standard, it is in nonattainment for the more stringent State PM_{10} standard.

4.2.2.1 Air Quality Standards

Air quality standards are specific pollutant concentration thresholds that are used to protect public health and public welfare. The USEPA has developed two sets of standards: one (primary) to provide an adequate margin of safety to protect human health, and the second (secondary) to protect the public welfare from any known or anticipated adverse effects (e.g., respiratory diseases such as asthma). The CARB has developed air quality standards for California, which are generally lower in concentration (i.e., more stringent) than federal standards. California standards exist for O_3, CO, suspended PM_{10}, visibility, sulfates, lead, hydrogen sulfide (H_2S), and vinyl chloride. Table 4.2-1 lists California and federal ambient air quality standards.

Table 4.2-1. Ambient Air Quality Standards (State and Federal)

Pollutant	Averaging Time	California Standard	Primary Federal Standard
Ozone (O_3)	1 Hour	0.09 ppm	--
Ozone (O_3)	8 Hour	0.070 ppm	0.070 ppm
Carbon Monoxide (CO)	1 Hour	20 ppm	35 ppm
Carbon Monoxide (CO)	8 Hour	9 ppm	9 ppm
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm	100 ppb
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	--	0.030 ppm
Sulfur Dioxide (SO_2)	24 Hour	0.04 ppm	0.14 ppm
Sulfur Dioxide (SO_2)	3 Hour	--	-- (0.5 ppm (secondary)
Sulfur Dioxide (SO_2)	1 Hour	0.25 ppm	75 ppb

Pollutant	Averaging Time	California Standard	Primary Federal Standard
Respirable Particulate Matter PM_{10}	Annual Geometric Mean	20 µg/m^3	--
Respirable Particulate Matter PM_{10}	24 Hour	50 µg/m^3	150 µg/m^3
Fine Particulate Matter $PM_{2.5}$	Annual Arithmetic Mean	12 µg/m^3	12.0 µg/m^3
Fine Particulate Matter $PM_{2.5}$	24 Hour	--	35 µg/m^3
Hydrogen Sulfide (H_2S)	1 Hour	0.03 ppm	--
Vinyl Chloride	24 Hour	0.01 ppm	--
Sulfates	24 Hour	25 µg/m^3	--
Lead	30 Day Average	1.5 µg/m^3	--
Lead	Calendar Quarter	--	1.5 µg/m^3
Lead	Rolling 3 Month Average	--	0.15 µg/m^3
Visibility Reducing Particles	8 Hour	Extinction coefficient* of 0.23 per kilometer - visibility of 10 miles or more due to particles when relative humidity is less than 70 percent	--

Source: CARB 2019
ppm = parts per million
ppb = parts per billion
µg/m^3 = micrograms per cubic meter
Annual Arithmetic Mean – Average of a given data set
Annual Geometric Mean - Time weighted, or average rate of return
*Measure of the rate of transmitted light via scattering and absorption for a medium

4.2.2.2 Air Toxic Health Risks

Diesel fuel combustion in internal combustion engines produces exhaust containing a number of compounds that have been identified as toxic air contaminants (TACs) by CARB. In 1998, CARB identified diesel particulate matter (DPM), a smog-forming pollutant from diesel exhaust, as a TAC. In 2000, CARB developed the Diesel Risk Reduction Plan to reduce PM and DPM emissions from diesel-fueled engines and vehicles to establish new emission standards, certification programs, and engine retrofit programs to control exhaust emissions from diesel engines and vehicles. CARB has the following diesel enforcement programs and regulations to reduce DPM and TAC emissions that may be applicable to the implementation of proposed Phase 2 activities:

- **Commercial Vehicle Idling**. Diesel-fueled motor vehicles with a gross vehicle weight rating greater than 10,000 pounds are prohibited from idling the vehicle's primary engine for more than 5 minutes at any location.
- **Heavy Duty Vehicle Inspection Program (HDVIP)**. The HDVIP program was initiated in January 2023 and requires heavy-duty trucks and buses to be inspected for excessive smoke, tampering, and engine certification label compliance when provided with a Notice to Submit to Testing from CARB.
- **Software Upgrade for Diesel Trucks**. Requires owners of eligible 1993 to 1998 model year electronically controlled heavy-duty diesel engines to install low NO_x software at the time of an engine rebuild.
- **Truck and Bus Regulation**. This regulation requires that all trucks and buses be equipped with 2010 or newer model year engines to reduce PM, DPM, and NO_x emissions. As of 2020, the California Department of Motor Vehicles will only register vehicles that comply with this regulation.
- **Strategic Plan for Diesel Enforcement**. Assembly Bill (AB) 233 (Jones 2007) also known as the Healthy Heart and Lung Act (HHLA), requires CARB to develop a strategic plan to enforce diesel emission control regulations. HHLA specifically requires CARB, every 3 years, to review existing diesel emission control regulations enforcement and anticipated enforcement needed to implement the Diesel Risk Reduction Plan. Based on that review, CARB is required to develop a Strategic Plan for consistent, comprehensive and fair enforcement of these regulations. In 2008, CARB issued a notice of postponement for the first Strategic Plan’s public review. No future date for public review has been set and further review by CARB has been postponed.

4.2.2.3 Local

Ventura County 2040 General Plan. The Ventura County 2040 General Plan Hazards and Safety Element (Ventura County 2020) includes several updated policies applicable to the proposed Project which are included below:

- **Policy HAZ-10.2: Air Quality Management Plan Consistency**. The County shall prohibit discretionary development that is inconsistent with the most recent adopted Air Quality Management Plan (AQMP), unless the Board of Supervisors adopts a statement of overriding considerations.
- **Policy HAZ-10.3: Air Pollution Control District Rule and Permit Compliance**. The County shall ensure that discretionary development subject to VCAPCD permit authority complies with all applicable VCAPCD rules and permit requirements, including the use of Best Available Control Technology (BACT) as determined by the VCAPCD.
- **Policy HAZ-10.11: Air Quality Assessment Guidelines**. In evaluating air quality impacts, the County shall consider total emissions from both stationary and mobile sources, as required by CEQA. The County shall evaluate discretionary development for air quality impacts using the Air Quality Assessment Guidelines as adopted by the VCAPCD, except the emissions from VCAPCD-permitted sources shall also be included in the analysis. The County shall revise the Initial Study Assessment Guidelines to implement this policy.
- **Policy HAZ-10.12: Conditions for Air Quality Impacts**. The County shall require that discretionary development that would have a significant adverse air quality impact shall only be approved if it is conditioned with all feasible mitigation measures to avoid, minimize, or compensate for (offset) the air quality impact. The use of innovative methods and technologies to minimize air pollution impact shall be encouraged in project design.
- **Policy HAZ-10.13: Construction Air Pollutant Best Management Practices**. Discretionary development projects that will generate construction-related air emissions shall be required by the County to incorporate best management practices (BMPs) to reduce emissions. These BMPs shall include the measures recommended by VCAPCD in its Air Quality Assessment Guidelines or otherwise to the extent applicable to the project.
- **Policy HAZ-10.14: Fugitive Dust Best Management Practices**. The County shall ensure that discretionary development that will generate fugitive

dust emissions during construction activities will, to the extent feasible, incorporate appropriate BMPs to reduce emissions to less than applicable thresholds.

Ventura County Air Pollution Control District. The VCAPCD shares responsibility with CARB for ensuring that all ambient air quality standards are attained within the County. The VCAPCD has jurisdiction under the California Health and Safety Code to develop emission standards (rules) for the County, issue air pollution permits, and require emission controls for stationary sources in the County. The VCAPCD is also responsible for the attainment of air quality standards in the County. Ventura County is currently designated as nonattainment for the federal and State 8-hour ozone standard, State 1-hour ozone standard, and the State 24-hour and annual arithmetic mean PM_{10} standard (VCAPCD 2019). The County is in attainment for all other federal and State standards.

The VCAPCD completed the 2016 update to the County's Air Quality Management Plan (AQMP) on February 14, 2017 (VCAPCD 2017), to build on past AQMPs, including a strategy to attain the 2008 federal 8-hour ozone standard, photochemical modeling to demonstrate the strategy would ultimately result in attainment of the federal ozone standard, and a demonstration that reasonable further progress towards attainment of the federal 8-hour ozone standard would occur. The 2016 AQMP includes control strategies to be implemented both locally (Ventura County) and Statewide to reduce air pollutant emissions as needed to attain the federal 8-hour ozone standard. The 2016 AQMP includes four new stationary source control measures to be adopted as rules to facilitate attainment of the federal 8-hour ozone standard.

The VCAPCD adopted a 2022 AQMP on December 13, 2022, which includes emission control measures carried forward from previous Ventura County AQMPs plus new and further study emission control measures. It also includes a transportation conformity budget that sets the maximum amount of on-road motor vehicle emissions produced while continuing to demonstrate progress towards attainment. Ventura County is anticipated to attain the 2015 federal 8-hour ozone standard (0.070 ppm) by 2027 (VCAPCD 2022).

The following VCAPCD rules and regulations are applicable to the Project:

- **Rule 50 – Opacity**: This rule sets the opacity standards for the discharge of visible air contaminants.

- **Rule 51 – Nuisance**: This rule indicates that no air contaminants shall be discharged that would cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endangers the comfort, repose, health or safety of any such persons or the public or which would cause injury or damage to business or property.
- **Rule 55 – Fugitive Dust**: This rule sets the requirements of fugitive dust generators. The provisions of this rule shall apply to any operation that would result in disturbed surface area, or a human-made condition capable of generating fugitive dust, including bulk material handling, earth-moving, construction, demolition, storage piles, unpaved roads, track-out, or off-field agricultural operations.
- **Rule 62.7 – Asbestos Demolition and Renovation**: This rule requires notification of planned demolition or renovation activities that may involve asbestos-containing material. Emission control requirements include removal of asbestos before building demolition, wetting all asbestos-containing material prior to removal, stripping, and containing the material, and stripping asbestos-containing material inside a negative air pressure containment area (friable asbestos over 100 square feet only).
- **Rule 64 – Sulfur Content of Fuels**: This rule sets the sulfur content requirements for gaseous and liquid fuels used in any combustion source. Ocean vessels are exempted.

4.2.3 Significance Criteria

The VCAPCD's 2003 Air Quality Assessment Guidelines include adopted significance thresholds for NO_x and ROGs for long-term operational emissions of 25 pounds per day (VCAPCD 2003). Additionally, a project that is inconsistent with the AQMP is considered to have a significant cumulative adverse air quality impact (VCAPCD 2003).

VCAPCD has not adopted short-term construction-related thresholds of significance, and clearly states in their guidelines that construction emissions should not be counted towards the established significance thresholds.

Because there are no quantitative significance thresholds for short-term air quality impacts resulting from construction in Ventura County, a significance threshold within the adjacent Santa Barbara County Air Pollution Control District (SBCAPCD) was utilized for this Project. The SBCAPCD uses a 25 tons per year per pollutant threshold for ROC and NO_x as a guideline for determining the significance of construction impacts (SBCAPCD 2022). Although the SBCAPCD thresholds are being utilized for analysis, VCAPCD recommendations regarding incorporation of standard construction mitigation measures have been applied since work will occur in Ventura County.

4.2.4 Impact Analysis and Mitigation

Air pollutant emissions were estimated for each major Project component to identify the peak 12-month period for comparison to the SBCAPCD threshold. Air pollutant emissions were estimated using two models developed by CARB: EMFAC[8] 2021 for on-road vehicles and OFFROAD 2021 for off-road construction equipment. OFFROAD 2021 was used to develop emissions factors specific to the type and horsepower of heavy equipment likely to be used, location, and Project start year (2024 used in estimate, equipment population within Ventura County). EMFAC 2021 was used to develop motor vehicle emissions factors (CARB 2023a & 2023b) specific to the location and approximate Project start year (Ventura County, 2024 used as estimate in representative calculations). Please see Appendix I for Air Quality Spreadsheets that are summarized in Tables 4.2-2a (Total Tons) and 4.2-2b (Peak 12-Month Period).

Impact AQ-1: Decommissioning-related Air Pollutant Emissions

Implementation of proposed decommissioning activities would result in air pollutant emissions that may affect air quality **(Less than Significant).**

Impact Discussion

Use of heavy equipment, trucks, and worker vehicles would generate air pollutant emissions that may affect regional air quality. Table 4.2-2a provides a summary of total air pollutant emissions for each major Project component and option for the amount of time the decommissioning or remediation of that component is anticipated to take (see Appendix I). Air pollutant emissions for a peak 12-month period were estimated (Table 4.2-2b) for comparison to the annual SBCAPCD threshold and are based on decommissioning activities occurring at all four sites in the same 12-month period, including the highest 12 months of the 15-month Rincon Island Decommissioning component, OPC Decommissioning, and the highest emitting options for the SCC Parcel Improvements (Option 2) and for the Onshore Facility (Option 3 – first year).

8 EMission FACtor (EMFAC), a model that estimates the official emissions inventories of on road mobile sources in California (https://arb.ca.gov/emfac/).

Note that only first year emissions for Option 3 are included in Table 4.2-2b, as the additional 5 years of tilling the land treatment area required for Option 3 would result in negligible annual emissions. As indicated in Table 4.2-2b, peak 12-month emissions would result in approximately 3.83 tons of NO_x and approximately 0.39 tons of ROC. The SBAPCD threshold is 25 tons per year for these pollutants, therefore Project decommissioning activities would not result in a significant impact. Although impacts to air quality would be less than significant and no mitigation is required, VCAPCD advises that construction-related emissions should be minimized. Therefore, **MM AQ-1** would be implemented to further reduce impacts to air quality.

Table 4.2-2a. Air Pollutant Emissions Summary (Total Tons per Project Site*)

Site/Option	NO_x	ROC	PM_{10}	$PM_{2.5}$	CO
Total Tons					
Rincon Island Decommissioning Activities	3.47	0.36	0.14	0.13	2.56
SCC Parcel Improvements					
Option 1 – Native Revegetation and Access Improvements	0.03	<0.01	<0.01	<0.01	0.04
Option 2 – Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm	0.13	0.01	<0.01	<0.01	0.09
Option 3 - Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage	0.09	0.01	<0.01	<0.01	0.08
OPC Decommissioning	0.05	0.01	<0.01	<0.01	0.05
Onshore Facility Remediation					
Option 1 – Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation	0.08	0.01	<0.01	<0.01	0.09
Option 2 – Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation	0.51	0.04	0.02	0.02	0.27
Option 3 – Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation	1.91	0.18	0.08	0.07	1.14
Option 4 – In-Situ Soil Mixing and In-Situ Groundwater Bioremediation	0.31	0.03	0.01	0.01	0.20
Option 5 – Localized Excavation/Surface Cap	0.24	0.02	0.01	0.01	0.17

Site/Option	NO_x	ROC	PM_{10}	$PM_{2.5}$	CO
Remainder and In-Situ Groundwater Bioremediation					

*A summary of anticipated total durations for each Project component, including decommissioning and any restoration or longer-term remediation or monitoring is provided in Table 2-9.

Table 4.2-2b. Air Pollutant Emissions Summary (Tons, Peak 12-Month Period*)

Task/Option	NO_x	ROC	PM_{10}	$PM_{2.5}$	CO
Rincon Island Decommissioning (in part)	2.87	0.30	0.11	0.10	2.05
SCC Parcel Improvements (Option 2)	0.13	0.01	0.01	<0.01	0.09
OPC Decommissioning	0.05	0.01	<0.01	<0.01	0.05
Onshore Facility Option 3 (first year)	0.78	0.08	0.03	0.03	0.48
Total – Peak 12-Month Period	**3.83**	**0.39**	**0.15**	**0.14**	**2.68**
SBCAPCD Threshold (Total Tons per Year)	**25**	**25**	**--**	**--**	**--**

*The peak 12-month period is based on decommissioning activities occurring at all four sites in the same 12-month period, including the highest 12 months of the 15 month Rincon Island Decommissioning component, OPC Decommissioning, and the highest emitting options for the SCC Parcel Improvements (Option 2) and for the Onshore Facility (Option 3 – first year).

Rincon Island

Removal of surface structures, removal of the well bay concrete deck and pavement, removal of contaminated soil and backfill with clean soil would be conducted using heavy equipment and motor vehicles which would generate exhaust emissions. As indicated in Table 4.2-2b, estimated air pollutant emissions associated with Rincon Island Decommissioning activities would not exceed the SBCAPCD threshold for any of the criteria pollutants. If this activity were conducted separately from other Project components, anticipated peak 12-month period NO_x emissions would total 2.87 tons per year and ROC would total 0.30 tons per year, both of which are under the SBAPCD threshold of 25 tons per year for these pollutants, and less than significant.

Although impacts to air quality would be less than significant and no mitigation is required, in accordance with Section 7.4 of the VCAPCD Guidelines, **MM AQ-1**

would be implemented to further reduce short-term impacts to air quality during construction.

Public Facilities Retention Option

Since the Operator’s building would still be removed under this option and only water and septic piping and the septic tank retained, heavy equipment and motor vehicle activity and associated emissions would be virtually the same and less than significant.

Although impacts to air quality would be less than significant and no mitigation is required, **MM AQ-1** would be implemented to further reduce impacts to air quality.

SCC Parcel

Option 1: Native Revegetation and Access Improvements

Option 1 would be limited to revegetation, minor improvements (walkway, bench, signage, stairway) and removal of coastal hazards (as appropriate). Therefore, equipment and motor vehicle use would be relatively minor, which is reflected in the low air pollutant emissions estimates provided In Table 4.2-2a. If this activity were conducted separately from other Project components, anticipated NO_x emissions would total 0.03 tons per year, and ROC would total less than 0.01 tons per year; both of which are significantly under the SBAPCD threshold of 25 tons per year for these pollutants. A less than significant impact would result.

Although impacts to air quality would be less than significant and no mitigation is required, in accordance with Section 7.4 of the VCAPCD Guidelines, **MM AQ-1** would be implemented to further reduce short-term impacts to air quality during construction.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

This Option includes the same improvements listed under Option 1 as well as installation of a cobble back berm. Heavy equipment and motor vehicles used to transport and place cobble would generate additional air pollutant emissions as compared to Option 1. If this activity were conducted separately from other Project components, anticipated NO_x emissions would total 0.13 tons per year, and ROC would total 0.01 tons per year; both of which are under the SBAPCD threshold of 25 tons per year for these pollutants. A less than significant impact would result.

Although impacts to air quality would be less than significant and no mitigation is required, in accordance with Section 7.4 of the VCAPCD Guidelines, **MM AQ-1** would be implemented to further reduce short-term impacts to air quality during construction.

<u>Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage</u>

This Option includes the same improvements listed under Option 1 as well as installation of riprap along the shoreline. Heavy equipment and motor vehicles used to transport and place riprap would generate additional air pollutant emissions as compared to Option 1. Option 3 would generate lower emissions than Option 2 due to the smaller amount of material transported and placed (360 cubic yards as compared to 2,500 cubic yards for Option 2). If this activity were conducted separately from other Project components, anticipated NO_x emissions would total 0.09 tons per year, and ROC would total 0.01 tons per year; both of which are under the SBAPCD threshold of 25 tons per year for these pollutants. A less than significant impact would result.

Although impacts to air quality would be less than significant and no mitigation is required, in accordance with Section 7.4 of the VCAPCD Guidelines, **MM AQ-1** would be implemented to further reduce short-term impacts to air quality during construction.

Onshore Pipeline Connections

Cleaning, flushing, and removal of pipelines, and filling the pipe casing with cement slurry would be conducted using heavy equipment and motor vehicles which would generate exhaust emissions. Equipment and motor vehicle use would be relatively small, which is reflected in the low air pollutant emissions estimates provided In Table 4.2-2a.

If this activity were conducted separately from other Project components, anticipated NO_x emissions would total 0.05 tons per year, and ROC would total 0.01 tons per year; both of which are under the SBAPCD threshold of 25 tons per year for these pollutants. A less than significant impact would result.

Although impacts to air quality would be less than significant and no mitigation is required, in accordance with Section 7.4 of the VCAPCD Guidelines, **MM AQ-1**

would be implemented to further reduce short-term impacts to air quality during construction.

Onshore Facility

The options below include the installation of a physical barrier (sheet pile wall) between the Onshore Facility and the adjacent privately-owned Coast Ranch parcel to assess the worst-case scenario. It is important to note that this sheet pile wall would not be necessary if remediation activities at the Coast Ranch parcel were proposed to occur at the same time as the Project.

Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation

In-situ groundwater remediation activities would be conducted using heavy equipment and motor vehicles which would generate exhaust emissions. Since contaminated soil would be left in place and capped, the amount of heavy equipment and motor vehicle use would be limited, which is reflected in relatively low air pollutant emissions (see Table 4.2-2a).

If this activity were conducted separately from other Project components, anticipated NO_x emissions would total 0.08 tons per year, and ROC would total 0.01 tons per year; both of which are under the SBAPCD threshold of 25 tons per year for these pollutants. A less than significant impact would result.

Although impacts to air quality would be less than significant and no mitigation is required, in accordance with Section 7.4 of the VCAPCD Guidelines, **MM AQ-1** would be implemented to further reduce short-term impacts to air quality during construction.

Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation

Excavation and removal of approximately 7,500 cubic yards of contaminated soil and replacement with imported clean soil would be conducted using heavy equipment and motor vehicles and result in substantial air pollutant emissions (see Table 4.2-2a).

If this activity were conducted separately from other Project components, anticipated NO_x emissions would total 0.51 tons per year, and ROC would total 0.04 tons per year; both of which are under the SBAPCD threshold of 25 tons per year for these pollutants. A less than significant impact would result.

Although impacts to air quality would be less than significant and no mitigation is required, in accordance with Section 7.4 of the VCAPCD Guidelines, **MM AQ-1** would be implemented to further reduce short-term impacts to air quality during construction.

Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation

Excavation and on-site bioremediation of approximately 7,500 cubic yards of contaminated soil would be conducted using heavy equipment and motor vehicles and result in substantial air pollutant emissions during the first year (see Table 4.2-2a). The treated soil piles would need to be watered and tilled on a weekly basis during this time. Therefore, air pollutant emissions associated with Option 3 are the highest of the five options considered.

The total NO_x and ROC emissions for this activity would be 1.91 tons and 0.18 tons, respectively. Peak year (first year) NO_x and ROC emissions would be 0.78 tons and 0.08 tons respectively. These values are used in Table 4.2-2b to estimate total peak year emissions, which would be under the SBAPCD threshold of 25 tons per year for these pollutants. A less than significant impact would result.

Although impacts to air quality would be less than significant and no mitigation is required, in accordance with Section 7.4 of the VCAPCD Guidelines, **MM AQ-1** would be implemented to further reduce short-term impacts to air quality during construction.

Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation

Soil mixing and in-situ bioremediation of approximately 7,500 cubic yards of contaminated soil would be conducted using heavy equipment and motor vehicles and result in substantial air pollutant emissions (see Table 4.2-2a). Option 4 would have lower emissions than Option 2 because off-site transport of contaminated soil and importation of clean soil would be avoided.

If this activity were conducted separately from other Project components, anticipated NO_x emissions would total 0.31 tons per year, and ROC would total 0.03 tons per year; both of which are under the SBAPCD threshold of 25 tons per year for these pollutants. A less than significant impact would result.

Although impacts to air quality would be less than significant and no mitigation is required, in accordance with Section 7.4 of the VCAPCD Guidelines, **MM AQ-1**

would be implemented to further reduce short-term impacts to air quality during construction.

Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation

Localized excavation of contaminated soil proposed under Option 5 would reduce the amount of earthwork in general, and reduce the volume of contaminated soil removed to about 2,300 cubic yards. This would reduce heavy equipment and motor vehicle use and associated air pollutant emissions (see Table 4.2-2a). Due to the smaller volume of contaminated soil affected, Option 5 would generate lower emissions than Options 2, 3, and 4.

If this activity were conducted separately from other Project components, anticipated NO_x emissions would total 0.24 tons per year, and ROC would total 0.02 tons per year; both of which are under the SBAPCD threshold of 25 tons per year for these pollutants. A less than significant impact would result.

Although impacts to air quality would be less than significant and no mitigation is required, in accordance with Section 7.4 of the VCAPCD Guidelines, **MM AQ-1** would be implemented to further reduce short-term impacts to air quality during construction.

Mitigation Measure

MM AQ-1: Standard Ventura County Air Pollution Control District Construction Emissions Reduction Measures. Air pollutant emissions reduction measures recommended by the VCAPCD shall be implemented, including:

- The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excessive amounts of dust.
- Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of water (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.
- All trucks shall be required to cover their loads as required by California Vehicle Code §23114.

- All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved onsite roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible.
- Graded or excavated inactive areas of the construction site shall be monitored at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over 4 days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until plant growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust.
- Signs shall be posted on site limiting traffic to 15 miles per hour or less.
- During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on site activities and operations from being a nuisance or hazard, either off site or on site. The site superintendent/supervisor shall use their discretion in conjunction with the VCAPCD in determining when winds are excessive.
- Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.
- Personnel involved in grading operations, including contractors and subcontractors, shall be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.
- Material stockpiles shall be enclosed, covered, stabilized, or otherwise treated as needed to prevent blowing fugitive dust off site.

- All Project construction and site preparation operations shall be conducted in compliance with all applicable VCAPCD Rules and Regulations with emphasis on Rule 50 (Opacity), Rule 51 (Nuisance), Rule 55 (Fugitive Dust) and Rule 10 (Permits Required).
- Signs displaying the VCAPCD complaint line telephone number (805-303-3700 during business hours; 805-303-3708 after hours) shall be posted in a prominent location visible to the public.
- Off-road construction equipment shall utilize engines certified to the Federal Emissions Standard Category of Tier 3 or Tier 4, if available. Based on federal exhaust emission standards, using Tier 3 certified engines instead of Tier 2 certified engines would reduce NO_x and non-methane hydrocarbon emissions by 39 percent.

4.2.5 Cumulative Impacts Analysis

Impact AQ-2: Cumulative Air Quality Impacts

The Project would incrementally contribute air pollutant emissions that may cumulatively affect air quality **(Less than Significant).**

Impact Discussion

Each of the cumulative projects identified in Section 3.0 would generate short-term construction air pollutant emissions that could affect regional air quality. Although some of these projects would also generate long-term operational emissions, the proposed Project would only incrementally contribute to short-term cumulative impacts, as Project-related emissions would be short-term and not exceed significance thresholds; therefore, the impact is considered less than significant. The Project contribution would not be cumulatively considerable, and mitigation is not required. However, impacts would be further reduced by implementation of **MM AQ-1**.

Mitigation Measure

MM AQ-1: Standard Ventura County Air Pollution Control District Construction Emissions Reduction Measures

4.2.6 Summary of Impacts and Proposed Mitigation Measures

Table 4.2-3. Summary of Air Quality Impacts and Mitigation Measures

Impact	Mitigation Measures
Impact AQ-1: Decommissioning-related Air Pollutant Emissions	**MM AQ-1:** Standard Ventura County Air Pollution Control District Construction Emissions Reduction Measures
Impact AQ-2: Cumulative Air Quality Impacts	**MM AQ-1:** Standard Ventura County Air Pollution Control District Construction Emissions Reduction Measures

4.3 BIOLOGICAL RESOURCES

The following discussion contains a summary of biological resources information from historical studies, regulatory agency database searches, and supporting field investigations. The marine biological setting contains a summary of information from the marine biological technical reports prepared for the Project by the University of California, Santa Barbara (UCSB) and Padre Associates, Inc. (Padre), which are included as Appendices D1, D2, and D3. The terrestrial biological setting contains observations from multiple field surveys of the Project sites including the SCC Parcel, OPC, and Onshore Facility from 2021 through 2023 as detailed below. A special status species list and a full terrestrial plant list are included in Appendices D4 and D5, respectively.

4.3.1 Environmental Setting

4.3.1.1 Overview

This section describes the ecological setting and biological resources (marine and terrestrial) in the Project vicinity.

Marine

Regionally, the marine Project sites (Rincon Island and causeway, and tidal areas of the SCC Parcel) are located along the coast of Ventura County on the eastern edge of the Santa Barbara Channel (SBC) near the headlands of Punta Gorda. The regional marine environment within the SBC provides important migration routes for marine mammals, fishes, and seabirds and contains a rich and diverse assemblage of resident marine life. Natural hard bottom, rock reef, and kelp beds are also present within the Project region which provide Essential Fish Habitat (EFH) and support regionally important species (refer to Section 4.3.1.3).

Terrestrial

The onshore Project sites (upland portions of the SCC Parcel, OPC, and Onshore Facility) are located within developed and highly trafficked public areas bound by Highway 101, Pacific Coast Highway, the Union Pacific Railroad, the residential community of Mussel Shoals, the Ventura Oil Fields, and other non-Project oil and gas production facilities. Mussel Shoals Beach is a sand beach immediately north of the SCC Parcel and causeway that is lined by a riprap revetment. The SCC Parcel can be accessed from the Coastal Trail multi-modal route and Highway 101. The Onshore Facility supported relatively recent oil and gas storage and production facilities, and has been continuously disturbed for decades; however, the Los Sauces Creek riparian corridor transects the Onshore Facility and discrete tree stands and windrows are present around the perimeter of the site.

4.3.1.2 Methodology

Marine biological dive surveys were conducted around Rincon Island between October 9 and November 5, 2020, which included transects for fish, macroinvertebrates (identifiable with the naked eye), and macroalgae. In addition, marine biological dive surveys were conducted of the intertidal and subtidal habitats under the causeway, including at the intersection of rocky outcrops (offshore of the abutment and riprap protection), in November 2022. Terrestrial biological surveys were conducted at the SCC Parcel, OPC, and Onshore Facility Project sites in March and August 2023. Species detection methods, vegetative cover types, significant habitat features, such as wetlands, potential nest trees, and lists of plants and wildlife associated with the various habitats at each Project site were recorded and are discussed below.

In addition to field surveys, the California Natural Diversity Database (CNDDB) Biogeographic Information and Observation System (BIOS) query and species lists from the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) were reviewed to identify occurrences of special status plant and animal species in the Project vicinity and are included in Appendix D4 (summarized in Section 4.3.1.4).

4.3.1.3 Site Specific Setting

Rincon Island and Causeway

There was no organized study of the biota in the area before construction of Rincon Island. Dr. William Brisby, in his ecological evaluation, “The Biota of Rincon Island,” in Keith and Skjei (1974) described the area as a "biological desert" before the installation of the Island. Brisby made such an analogy because without hard substrate for attachment, algae and sessile invertebrates are mostly absent in the sand-silt habitat except for where rock is exposed in scattered places (UCSB 2021). The causeway was built within an area of extensive rock outcropping, as shown in recent bathymetric surveys, that presumably provided habitat structure for reef species offshore Punta Gorda long before the causeway was present (eTrac 2021a & 2021b).

Following the construction of the Island and causeway in 1957, initial observations of the marine community at Rincon Island were already highly diverse compared to the algae and fish communities prior to construction (Carlisle et al. 1964). Numerous fishes, at least 50 species in 22 families, were observed, and a modest kelp bed (giant kelp [*Macrocystis pyrifera*]) grew on the submerged areas of riprap and tetrapod revetments on all sides of the Island. Early communities also included at least 117 invertebrate species, and at least 14 algal species were found living on the armor revetment and soft bottom substrate of sandy silt adjacent to the Island's base.

<u>Habitat Descriptions</u>

Habitat on the interior of the Island is limited to roosting areas and potential haul-out structures provided by the Island's tetrapods, boat dock, and causeway railings. The habitats surrounding Rincon Island and the causeway include marine intertidal, subtidal, benthic, and pelagic habitats.

Rincon Island and Causeway Above Sea Level Habitat. Rincon Island is approximately 2 acres and sits 3,000 feet from shore. The terrestrial habitats on Rincon Island primarily consist of manufactured structures, such as the tetrapods and operations buildings. The center of the Island is 15 feet above the mean low water line, with the highest point of the tetrapods at 35 feet above the mean low water line. The Island is comprised of concrete and asphalt pads and is largely devoid of vegetation except for palm trees (*Washingtonia robusta*) that were planted around the perimeter of the Island. The tetrapods, operations buildings, and palm trees all provide roosting habitat for coastal birds. A wooden boat wharf is located on the east side of the Island but is fixed 15 feet above the mean low tide line and is bordered by a railing; therefore, it does not support haul-out habitat for pinnipeds.

The causeway is 2,732 feet long and consists of a wooden pier structure and driveway deck and is lined by railings. The causeway is a narrow driveway that has historically supported vehicle access to the Island and supports out-of-service oil and gas pipelines. Birds will frequently roost on the causeway rails and deck.

Intertidal and Subtidal. The intertidal habitat in the Project site primarily consists of manufactured structures including concrete tetrapods, wooden causeway pilings, and riprap at the causeway abutment. The natural seafloor habitat in the marine study area is comprised of a mixture of soft sediment (sand, silts, and clays) and low-relief rocky outcroppings consisting of sediment-covered boulders and shale bedrock ridges that run parallel to shore (eTrac 2021a & 2021b). The Rincon Island causeway pilings were built through the middle of these naturally occurring rocky outcroppings on the seafloor offshore of Punta Gorda which attract and provide habitat for algae, invertebrates, fish, and marine mammal species associated with sensitive rock reef habitats.

Open Water. The open water, pelagic habitat around Rincon Island supports migration and foraging habitat for marine mammals, reptiles, fish and avifauna. Maximum water depths around the Island are approximately 50 to 55 feet and support species that are adapted to live at those depths. The following sections provide a description of the wildlife that may occur within the habitats in the Project vicinity.

Wildlife

As described above, the manufactured structure at Rincon Island is a unique ecosystem in the Project region and provides artificial reef habitat primarily due to the tetrapods and riprap substrate and complexity of the subsurface habitat (greater availability and extent of caves, crevices, and shelter). The species discussed below are commonly observed at natural rock reefs in the Project region but may have greater diversity and density around Rincon Island than at natural rock reefs due to more structurally complex habitat. The following section provides a summary of existing conditions based on habitat and species observations detailed in UCSB, 2021 (Appendix D1); Padre, 2023a (Appendix D2); and Padre, 2023b (Appendix D3).

Invertebrates. At the water's surface, tetrapods surrounding Rincon Island are habitat for a number of marine intertidal invertebrates, such as: Pacific acorn barnacle (*Balanus glandula*), small acorn barnacle (*Semibalanus balanoides*), California barnacle (*Megabalanus californicus*), checkered periwinkle (*Littorina scutulata*), striped shore crab (*Pachygrapsus crassipes*), giant green anemone (*Anthopleura xanthogrammica*), brown bryozoan (*Bugula* sp.), colonial bryozoan (*Cryptosula pallasiana*), opalescent (thick-horned) nudibranch (*Hermissenda crassicornis*), bay mussel (*Mytilus trossulus*), and gooseneck barnacle (*Pollicipes polymerus*).

The causeway pilings support habitat communities from Rincon Island to the causeway revetment that are dominated by red rust bryozoans (*Watersipora* sp.), Strawberry anemone (*Corynactis californica*), and brown bryozoan. Other invertebrate species that are associated with the causeway pilings include golden and brown gorgonian (*Muricea fruticose* and *M. californica*), warty sea cucumber (*Apostichopus parvimensis*), sponges (*Porifera* sp.), stalked tunicate (*Styela montereyensis*), sessile anemones (*Anthopleura sola*), hermit crabs (*Pagarus* sp.), rock scallop (*Crassodoma gigantea*), feather duster worms (*Eudistylia polymorpha*), ochre sea stars (*Pisaster ochraceus*), and acorn barnacles. While the causeway pilings do provide valuable hard substrate and vertical structure under the causeway, the rocky outcropping offers natural complexity and substrate variability which provides the primary value to the nearshore and offshore Project and regional marine environment.

The rocky outcrops located in areas under the causeway from the shore to Rincon Island tend to support a generally more diverse epibiota. Specialized rock-dwelling invertebrates that inhabit the rock outcropping underneath the causeway included urchins (*Strongylocentrotus* spp.), California Aglaja sea slug (*Navanax inermis*), sponges, purple gorgonians (*Egorgia rubens*), limpits (*Lottia* sp.), giant keyhole limpet *(Megathura crenulate),* bat stars (*Patiria miniata),* kellet's whelk *(Kelletia kelletii),* chitons *(Polyplacophora spp.)*, and Spanish shawl nudibranchs (*Flabellina iodine*). Solitary anemone and purple sea urchin *(Strongylocentrotus purpuratus)* are occasionally present underneath ledges and between bedrock. Extensive mussel beds are present on portions of the rock outcropping. In addition, numerous California spiny lobster (*Panulirus interruptus*), occur within high relief (3 to 5 feet) rock crevices. The invertebrate epifauna[9] of the sand and sedimentary habitats between Rincon Island and shore typically includes several species of macroinvertebrates, including sea stars, Pacific sand dollars (*Dendraster excentricus*), and slender crabs (*Cancer gracilis*), as well as polychaete worms and mollusks.

Abalone are known to inhabit nearshore rocky reef habitats along the southern California coast. Black and white abalone (*Haliotis cracherodii* and *H. sorenseni*) are both federally endangered (FE) species protected under the Federal Endangered Species Act (FESA) and are considered rare in the study area (Section 4.3.1.4). Other abalone species that could be found in the offshore area include red (*H. rufescens*), pink (*H. corrugate*), green (*H. fulgens*), and pinto (*H. kamtschatkana*), whose populations are managed by the California

9 Epifauna – animals living on the surface of the seabed, or attached to submerged objects or aquatic animals or plants

Department of Fish and Wildlife (CDFW). No abalone species were observed during biological surveys conducted on behalf of the Project.

Fish. Substrate type, wave exposure, depth, and presence of kelp or seagrass often determine the fish species composition in a particular area. Various habitat types in the Project region support diverse fish fauna including habitat for coastal schooling species, rock reef species, and benthic reef species, some of which were found to utilize Rincon Island and the associated causeway as an artificial reef.

Hard substrate features, like the tetrapods around Rincon Island and causeway pilings, attract different assemblages of fishes. These species commonly consist of rockfish (*Sebastes* sp.) and other reef dwelling species such as painted greenling (*Oxylebius pictus*), kelp bass, kelp greenling (*Hexagrammos decagrammus*), sheephead (*Semicossyphus pulcher*), garibaldi (*Hypsypops rubicundus*), and cabezon which occur as a resident population and do not discriminate between habitats around Rincon Island and the causeway; however, the density of these fish is higher around the Island than the causeway. The difference in density is likely due to the protection and refuge areas that the subsea tetrapods provide in contrast to open water under the causeway.

Early post-construction surveys of Rincon Island reported the most frequently encountered reef fish were four species of surfperch (pile perch [*Rhacochilus vacca*], black perch [*Embiotica jacksoni*], rubberlip perch [*Rhacochilus toxotes*], and rainbow seaperch [*Hypsurus caryi*]), halfmoon (*Medialuna californiensis*), and two recreationally important species, kelp bass (*Paralabrax clathratus*) and barred sand bass (*Paralabrax nebulifer*). Other recreationally important reef fish often seen were blue rockfish (*Sebastes mystinus*), brown rockfish (*S. auriculatus*), olive rockfish (*S. serranoides*), cabezon (*Scorpaenichthys marmoratus*) and bocaccio (*Sebastes paucispinis*) (Carlisle et al. 1964). These species were still present in large numbers during later dives (1960-1970 and 1978) as well as recent dives conducted by UCSB in 2020 (Johnson and deWit 1978; UCSB 2021).

Within the sandy and sedimentary habitat surrounding the Island and causeway, fish species most likely to be found include mostly demersal species, such as sanddabs (*Citharichthys* spp.), California halibut (*Paralichthys californicus*), or Pacific staghorn sculpin (*Leptocottus armatus*), and during the summer spawning periods, grunion (*Leuresthes tenuis*). Other species such as white croaker (*Genyonemus lineatus*), barred surfperch (*Amphisticus argenteus*), barred sand bass (*Paralabrax nebulifer*), which were observed during dive surveys, inhabit the water column but feed on invertebrates living in the substrate.

Other schooling species, such as anchovy (*Engraulis mordax*), sardine (*Sardinops sagax caerulea*), topsmelts (*Atherinidae*), striped bass (*Morone saxatilis*), or white seabass (*Atractoscion nobilis*), blacksmith (*Chromis punctipinnis*), opaleye (*Girella nigricans*), and sargo (*Diplodus sargus*), are restricted mainly to the water column where they feed on midwater plankton or other midwater fishes.

Marine Birds. The SBC region, in particular, has been characterized as exhibiting diverse and abundant marine avifauna. As a consequence of its location within the Pacific Flyway and due to the variability of the mainland and coastal terrain, the SBC region, including the Ventura County coastline where Rincon Island and the causeway are located, provides foraging and breeding habitat for over 250 species of birds.

Bird species commonly associated with nearshore open waters that are present or likely to occur in the Project area include three species of gulls (Heermann's [*Larus heermanni*], western [*L. occidentalis*], and Bonaparte's [*Chroicocephalus philadelphia*]), two species of cormorant (Brandt's [*Phalacrocorax penicillatus*] and double-crested [*Nannopterum auritus*]), the western grebe (*Aechmophorus occidentalis*), and the formerly endangered, and now State fully protected, brown pelican (*Pelecanus occidentalis*). These marine bird species feed on small schooling fish, squid, and zooplankton, and forage in open water where prey is concentrated near the water's surface. In addition, several special status species have the potential to migrate or forage in the area around Rincon Island and the causeway including California least terns (*Sternula antillarum*), Ashy storm petrels (*Oceanodroma homochroa*), and black storm petrels (*O. elania*); however, petrels mostly forage farther offshore in deeper waters of the SBC and are unlikely to occur near these Project sites.

As shown in Figure 4.3-1, Rincon Island serves as a roosting area for a number of species, particularly the brown pelican, gulls, and cormorants. In addition, the Island is frequented by osprey (*Pandion haliaetus*) that roost in the Island's palm trees at night and forage around the Island and causeway. A Roosting Bird Survey Report prepared for the proposed Project (Padre 2023b [Appendix D3]), as well as National Audubon Society Christmas Bird Counts, have identified 20 species of birds roosting on the Island and foraging within the artificial reef communities around the Island (National Audubon Society 2021 and 2022). The most abundant species overall was the brown pelican. Although some birds were found to be roosting on the causeway railings, most of the birds were roosting on the tetrapods around the perimeter of Rincon Island (Figure 4.3-2). Roosting surveys were conducted after Phase 1 operations were completed; however, anecdotally, crews observed numerous birds roosting on the seaward tetrapods while Phase 1 activities and well plugging and abandonment drilling was in progress. There was no evidence of recent nesting on the Island or causeway; however, it appears the Island and causeway structures provide local bird populations with valuable refuge along either local or long-distance migration corridors adjacent to suitable foraging areas (Padre 2023b).

Figure 4.3-1. Brown Pelicans Roosting at Rincon Island

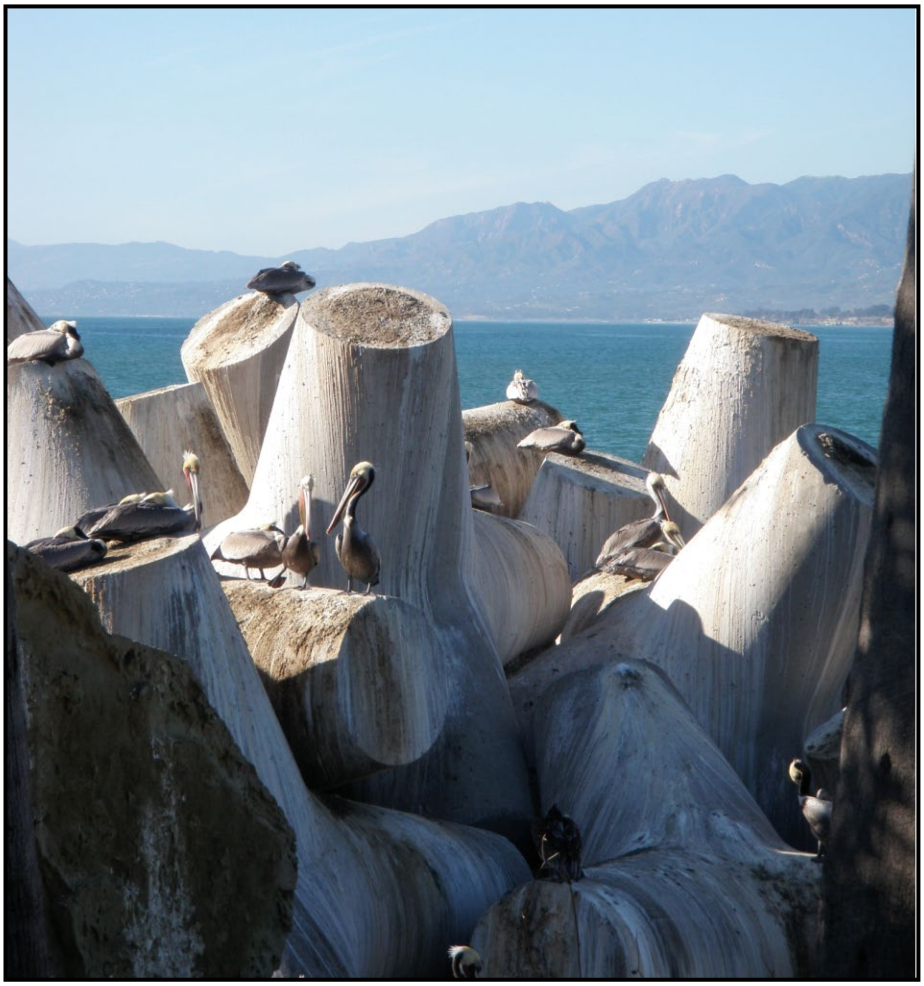


Figure 4.3-2. Aerial Image of Roosting Birds on North Side of Rincon Island

Marine Mammals and Sea Turtles. The marine mammal population off California includes eight baleen whale species, more than a dozen species of porpoises, dolphins, and other toothed whales, six species of pinnipeds, and the southern sea otter. All marine mammals are protected under the Marine Mammal Protection Act (MMPA) of 1972 (50 CFR 216) which provides the protection of stocks as well as against "take[10]" of individual animals. Some species are purely migrants that pass through central and southern California waters on their way to calving or feeding grounds elsewhere, some are seasonal visitors that remain for a few weeks or months, and others are resident for much or all of the year. At certain times of the year, hundreds of thousands of marine mammals may be present along the coast of central and southern California.

Marine mammal species that may occur in the Project area are limited to those that can haul-out on manufactured structures including California sea lion (*Zalophus californianus*) and Pacific harbor seal (*Phoca vitulina*). California sea lion and Pacific harbor seal also utilize the habitat around Rincon Island and under the causeway for foraging. Due to the location of Rincon Island, the species with the greatest potential for occurrence in the deeper waters

10 "Take" as defined in the MMPA means to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.

(approximately 50 to 60 feet) in the vicinity of the Island include the long- and short-beaked common dolphin (*Delphinus capensis*, *D. delphis*), coastal bottlenose dolphin (*Tursiops truncates*), minke whale (*Balaenoptera acutorostrata*) as well as federally listed migrating gray whale (*Eschrichtius robustus*) and humpback whale (*Megaptera novaeangliae*) (Section 4.3.1.4).

Although rarely encountered, marine turtles occasionally are reported within waters off the central and southern California coast and could potentially occur in the waters around Rincon Island. Populations of marine turtles have been greatly reduced due to over harvesting and loss of nesting sites on tropical beaches. Sea turtles breed at sea and the females return to their natal beaches to lay their eggs; however, sea turtles do not nest anywhere along the California coast. The four listed sea turtles that may occur include the endangered Leatherback turtle (*Dermochelys coriacea*) and Loggerhead turtle (*Caretta caretta*), and the threatened Green sea turtle (*Chelonia mydas*) and Olive Ridley turtle (*Lepidochelys olivacea*). Although several occurrences of sea turtles have been documented off the southern California coast, the likelihood of their occurrence in the marine study area is considered low.

<u>Protected Marine Habitats</u>

The following provides a discussion of protected marine habitats that occur in the region.

Marine Protected Areas. California adopted the Marine Life Protection Act (MLPA) in 1999 (CA FGC Sections 2850-2863) to provide improved protection for the diversity and abundance of California's ocean habitats through a network of Marine Protected Areas (MPAs) with the goals of sustaining, conserving, and protecting marine life populations; protecting marine ecosystems; improving recreational, educational, and study opportunities provided by marine ecosystems; and protecting marine natural heritage. There is strong scientific evidence that MPAs restore and protect the natural diversity and abundance of marine life, and the structure, function, and integrity of marine ecosystems.

The nearshore and offshore study areas have not been identified by the CDFW as an MPA. The closest MPA is the Scorpion State Marine Reserve on the north side of Santa Cruz Island located approximately 17.7 miles south of Rincon Island.

California Coastal National Monument. The California Coastal National Monument managed by the Bureau of Land Management (BLM) provides unique habitat for marine-dependent species on more than 20,000 rocks, islands, exposed reefs, and pinnacles, as well as 7,924 acres of public land at six onshore units: Trinidad Head, Waluplh-Lighthouse Ranch, Lost Coast Headlands, Point Arena-Stornetta, Cotoni-Coast Dairies, and Piedras Blancas. The rocky headlands within the California Coastal National Monument provide foraging and roosting areas, nesting habitat for breeding seabirds, and haul-outs for marine mammals. The offshore rocks included in the monument are those exposed above mean high tide within 12 nautical miles of the California mainland. Rincon Island is designated as part of the monument.

Pinniped Haul-Outs and Rookeries. The California south coast provides a diversity of haul-out locations such as rocky shorelines, sandy beaches, estuaries, and mudflats. California sea lions and harbor seals have several haul-outs on rocky headlands and offshore structures. Both harbor seals and California sea lions have been reported to occasionally utilize the seaward perimeter tetrapods surrounding Rincon Island; however, there have not been any reports that pinnipeds use Rincon Island as a breeding area (rookery).

The nearest pinniped rookery is the Carpinteria Harbor Seal Rookery and Preserve located on Carpinteria Beach approximately 3.8 miles northwest of the study area. The Carpinteria Harbor Seal rookery is one of a few known active harbor seal rookeries in Southern-central California. The next nearest rookery is recorded at Mugu Lagoon located more than 25 miles south of the study area at Pt. Mugu Naval Air Warfare Center in Ventura County.

Essential Fish Habitat and Habitat Areas of Particular Concern. The Magnuson-Stevens Fishery Conservation and Management Act (MSA) defines essential fish habitat (EFH) as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." According to the NMFS, EFH can include sediment, hard bottom, underwater structures, and associated biological communities (PFMC 2022). Section 303, subdivision (a)(7) of the MSA requires fishery management councils to identify EFH. EFH that is judged to be particularly important to the long-term productivity of populations of one or more managed species, or to be particularly vulnerable to degradation, should be identified as habitat areas of particular concern (HAPC). HAPC for managed groundfish includes estuaries, areas with canopy kelp, seagrass beds, rocky reefs, and seamounts. HAPCs are defined as discrete subsets of EFH that provide important ecological functions or are especially vulnerable to degradation.

Rincon Island and the causeway are located within designated EFH for groundfish, coastal pelagic, and highly migratory species.

Geophysical bathymetric surveys conducted by eTrac (eTrac 2021a & 2021b) identified kelp beds associated with hard-bottom substrates around the perimeter of Rincon Island and perpendicular to the causeway in the vicinity (Figure 4.3-3). Kelp was also noted around Rincon Island during the biological surveys (UCSB 2021 [Appendix D1]). Kelp beds within the Project site qualify as HAPC and contribute to EFH in the region.

Environmentally Sensitive Habitat Areas (ESHA). Sections 30230, 30231, 30233, and 30240 of the CCA of 1976 require protection of marine resources and estuaries. Section 30107.5 of the CCA defines ESHA as "… any area in which plant or animal life, or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments." Ventura County considers ESHA to include coastal dunes, beaches, tidepools, wetlands, creek corridors, and certain upland habitats in the Santa Monica Mountains. Under this definition, the intertidal habitat at the base of the causeway abutment is considered ESHA.

Critical Habitats. The Rincon Island and causeway Project sites are not within a designated critical habitat area for marine species. The nearest aquatic critical habitat is designated for southern California steelhead (*Oncorhynchus mykiss*) and is located approximately 2.5 miles northwest within Rincon Creek (Hydrologic subarea 331534). None of the proposed Project sites would occur within critical habitat areas (NMFS 2022).

Surf Grass and Eelgrass Beds. Surf grass (*Phyllospadix* sp.) beds are commonly found along the southern California intertidal reefs and are known to provide cover and habitat structure for intertidal invertebrates and marine alga. Surf grass occurs at the base of the causeway revetment (Padre 2023a); however, its presence may fluctuate on a seasonal basis depending on the intensity of sand deposition or wave action.

Eelgrass (*Zostera marina, Z. pacifica*) beds are important ecological communities of estuaries and nearshore habitats because of the multiple ecosystem values that they provide. Eelgrass is a major source of primary production in nearshore marine systems, supplying detrital based food chains. In addition, several organisms directly graze upon it, thus contributing to the system at multiple trophic levels.

Figure 4.3-3. Kelp at Rincon Island and Adjacent to Causeway

Note: Kelp shown in this photograph includes the brown floating vegetation area(s) located on the water surface near the west (left) of the causeway and along the east (right) side of Rincon Island below the riprap.

Eelgrass forms extensive meadows in soft-bottom habitats from the low intertidal to depths of about 20 feet (6 meters), and from sheltered areas to exposed coasts. In southern California, eelgrass has been reported to occur as deep as 98 feet (30 meters) (NOAA 2014).

Eelgrass beds were not identified during the marine biological or bathymetric surveys conducted of the seafloor around Rincon Island and the causeway (UCSB 2021; Padre 2023a; eTrac 2021a). The nearest reported eelgrass bed is located approximately 12 miles southwest of the nearshore/offshore study area, in northern Ventura Harbor (Sherman and DeBruyckere 2018).

<u>SCC Parcel</u>

<u>Habitats Descriptions and Plant Communities</u>

The upland SCC Parcel supports a ruderal and disturbed plant community dominated by hottentot-fig ice plant (*Carpobrotus edulis*) and sea-lavender (*Limonium perezii*) with patches of ornamental Senecio (*S. radicans*) (Figures 4.3-4 and 4.3-5). A total of 10 plant species were identified during the March 13 and September 8, 2023, biological surveys. All of these 10 plant species are non-native, and hottentot-fig ice plant is considered highly invasive by the California Invasive Plant Council. Appendix D5 provides a list of these plants and their native or non-native status.

Environmentally Sensitive Habitat Areas. The definition of ESHA under the CCA is included above in Section 4.3.1.1. Ventura County considers ESHA to include coastal dunes, beaches, tidepools, wetlands, creek corridors, and certain upland habitats in the Santa Monica Mountains. Under this definition, the beach and intertidal habitat at the SCC Parcel is considered ESHA, although it has been previously modified and consists primarily of human made structures (riprap and causeway abutment) and a small sand beach area.

<u>Wildlife</u>

Birds. Migrant shorebirds such as the black-bellied plover (*Pluvialis squatarola*), black oystercatcher (*Haematopus bachmani*), willet (*Tringa semipalmata*), whimbrel (*Numenius phaeopus*), long billed curlew (*Numenius americanus*), marbled godwit (*Limosa fedoa*), and sanderling (*Calidris alba*) are commonly found foraging and resting on the sand beaches along this stretch of coastline. In addition, the federally Threatened western snowy plover has the potential to utilize the SCC Parcel beach area (Section 4.3.1.4). Western snowy plovers do not nest on the SCC Parcel. Wildlife species observed at the SCC Parcel during the biological field surveys were limited to Western gull, house sparrow (*Passer domesticus*), Eurasian collared dove (*Streptopelia decaocto*), and house finch (*Haemorhous mexicanus*).

Marine Mammals. California sea lion and harbor seals haul-out along beaches and on rocky headlands. Both harbor seals and California sea lions occasionally utilize the rocky shoreline in the Project region as haul-out habitat; however, there are no recorded pinniped haul-outs at the SCC Parcel. The sandy beach portion of the SCC Parcel is small, heavily trafficked by the public, and lacks suitable protection from potential predators (off leash dogs); therefore, it is unlikely that pinnipeds would haul-out on the SCC Parcel beach area. In addition, there have not been any reports that document pinnipeds' use of the SCC Parcel beach as a rookery.

Figure 4.3-4. SCC Parcel Area, Onshore View

Figure 4.3-5. SCC Parcel, View of Beach Cove and Intertidal Habitat

Onshore Pipeline Connections

The OPC runs underground from the causeway abutment to the OPC vault. The OPC vault is immediately adjacent to a heavily disturbed slope and gravel access road on the northeast side of Highway 101, approximately 40 feet north of the UPRR (Figure 4.3-6).

Figure 4.3-6. Onshore Pipeline Connections Vault Box

Habitat Descriptions and Plant Communities

Uphill of the gravel access road and the OPC vault, the slope is densely vegetated, steep hillside of coastal sage scrub species, such as such as California sagebrush (*Artemisia californica*) and coyote brush (*Baccharis pilularis*); however, no work is proposed to occur uphill of the OPC vault. The OPC is primarily devoid of vegetation, except for non-native herbaceous forbs and grasses present around the perimeter. The Onshore Pipeline Connections are included within a subsurface vault, and would not require vegetation disturbance for decommissioning activities that would have the potential to effect ESHA.

Wildlife

Outside of the proposed OPC Project site work area, the adjacent coastal scrub habitat may provide suitable habitat for burrowing small mammals such as California ground squirrel (*Otospermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), and deer mice (*Peromyscus maniculatus*), as well as nesting birds (house sparrow, house finch, California towhee [*Melozone crissalis*] and wrentit [*Chamaea fasciata*]). Individual animals may transit through the Project site, but the site does not support suitable habitat for foraging, denning, or nesting.

Onshore Facility

The Onshore Facility is located between U.S. Highway 101 and PCH in Ventura County on an area of former State Oil and Gas Lease Nos. PRC 145 and PRC 410 and is designated by Assessor's Parcel Number (APN) 060-0-010-43 (6.01 acres). This parcel was previously used for oil and gas production. All oil wells have been abandoned, and all above ground oil and gas facilities at the Onshore Facility and the adjacent Coast Ranch parcel were removed as part of Phase 1 plugging and abandonment activities; the site is currently in caretaker status.

Biological surveys were conducted at the Onshore Facility on March 13 and September 8, 2023, which included the entire parcel and adjacent areas. A total of 44 plant species were observed during field surveys, including 14 native species (28 percent). Twenty species listed as invasive by the California Invasive Plant Council were observed within the Project site, which naturally reduces the suitability of the habitats onsite for plant and wildlife species. Appendix D5 provides a list of plants observed and their native or non-native status. This section describes the onshore habitats and terrestrial biological resources within the Onshore Facility Project site.

Habitat Descriptions and Plant Communities

Disturbed and Developed Land. Currently, 5.5 acres (84 percent) of the Onshore Facility are graded and portions surfaced with crushed asphalt (Figure 4.3-7). Much of the Onshore Facility does not support vegetation. However, patches of opportunistic weedy species are present, dominated by red-stem filaree (*Erodium cicutarium*), cheese-weed (*Malva parviflora*), wild barley (*Hordeum murinum*), rip-gut grass (*Bromus diandrus*), and bur-clover (*Medicago polymorpha*).

Ruderal Landscaped Community. The Project site is bordered on the west by a windrow of native and non-native landscape shrubs and dense vegetation that was planted to create a visual barrier between the Project site and Highway 101. The landscaped area measures approximately 0.6 acres (10 percent) of the Project site.

Vegetation is present along the western boundary of the parcel and is dominated by myoporum (*Myoporum laetum*), melaluca (*Melaleuca* sp.), and lemonade-berry (*Rhus integrifolia*), with scattered tree stands of Monterey cypress (*Hesperocyparis macrocarpa*) and red gum (*Eucalyptus camaldulensis*) trees. In addition, surveys reported two plant species rated as highly invasive (giant reed and red brome), 11 species rated as moderately invasive, and seven species considered to have limited invasiveness.

Riparian Habitat. Los Sauces Creek transects the Onshore Facility as it transitions from a concrete channel in the former oil field and flows under bridges supporting the Union Pacific Railroad tracks and PCH to culverts under U.S. Highway 101 to the Pacific Ocean. The riparian corridor is approximately 0.3 acres (5 percent) of the Project site and includes a small grove of Monterey cypress and red gum trees located just south of Los Sauces Creek. Winter storms in 2022 and 2023 damaged some of the tree stands causing a loss of one Monterey cypress. In average to low rain years, Los Sauces Creek provides ephemeral (seasonal) water flows from the headwaters in Los Sauces Canyon near Lake Casitas and provides marginal habitat for riparian species. In above-average rain years, water flows year-round in Los Sauces Creek. Directly northeast of the Project site, Los Sauces Creek transitions into a concrete channel devoid of riparian vegetation; therefore, the riparian habitat in the Project site has been isolated from the upstream habitat. This lack of a proper upstream creek migration corridor has limited the ability of the habitat to attract and support riparian species.

The riparian corridor within the Onshore Facility is characterized as arroyo willow thickets and is dominated by arroyo willow (*Salix lasiolepis*), with small patches of giant reed (*Arundo donax*), myoporum, and lemonade-berry (Figure 4.3-8). Ventura County considers ESHA to include coastal dunes, beaches, tidepools, wetlands, and creek corridors. Under this definition, the Los Sauces Creek corridor is considered ESHA (Policy 1.3 ESHA), however proposed Project activities would occur more than 100 feet (ESHA setback boundary limits) from this corridor.

Figure 4.3-7. Onshore Facility Project Site

Figure 4.3-8. Vegetation within Los Sauces Creek

Wildlife

Wildlife observed and known to occur on the Onshore Facility Project site is characteristic of the region but is limited due to the highly disturbed nature of the Project site as well as its restricted access from wildlife migration corridors. Wildlife species likely to occur or observed at the Onshore Facility during the March 13, 2023, biological survey and previous site visits are summarized below.

Invertebrates. The Onshore Facility is largely devoid of vegetation that would attract a diversity of insects and pollinators; however, tree stands comprised mostly of red gum eucalyptus and Monterey cypress have historically supported aggregations of monarch butterfly (*Danaus plexippus*) (Figure 4.3-9; Section 4.3.1.4).

Figure 4.3-9. Monarch Butterfly Roost in Cypress Trees at Onshore Facility

Amphibians. Although water is normally seasonally available in Los Sauces Creek, the riparian habitat is largely isolated from upstream reaches of the Creek and provides marginal habitat for amphibian and other riparian species on the Project site. The only amphibian species observed during field surveys was the Baja California treefrog (*Pseudacris hypochondriaca*). There is a low likelihood for other amphibians such as western toad (*Anaxyrus boreas*) and the federally threatened, California red-legged frog (*Rana draytonii*) to occur in the Project site.

Reptiles. The Project site provides minimal cover and prey base for reptile species, and no reptile species were observed during the field surveys. The Project site is located at the base of foothills that provide grassland and shrub plant communities that have the potential to support several reptile species; however, oil field development, the Union Pacific Railroad, and PCH have isolated the Project site from these habitats which are important to support reptiles. Common reptile species that occur in the region and have a low potential to occur on the Project site include the Coast range fence lizard (*Sceloporus occidentalis bocourtii*), common side-blotched lizard (*Uta stansburiana elegans*), southern alligator lizard (*Elgaria multicarinata webbii*), California legless lizard (*Anniella* sp.), Blainville's horned lizard (*Phrynosoma blainvillii*), western skink (*Plestiodon skiltonianus skiltonianus*), western yellow-bellied racer (*Coluber constrictor mormon*), striped racer (*Coluber lateralis lateralis*), coachwhip red racer (*Coluber flagellum piceus*), ring-necked snake (*Diadophis punctatus*), California kingsnake (*Lampropeltis californiae*), gophersnake (*Pituophis catenifer*), common and two-striped gartersnake (*Thamnophis sirtalis*; *Thamnophis hammondii*), and western rattlesnake (*Crotalus oreganus helleri*). Although southwestern pond turtle (*Actinemys pallida*) is known to occur in the region, there have been no recorded occurrences of southwestern pond turtle in Los Sauces Creek or its tributaries, and the aquatic habitat is less than suitable for the species; therefore, they are unlikely to occur in the Project site.

Birds. Tree stands (Monterey cypress, red gum), the riparian corridor, and other woody vegetation (melaleuca, myoporum) at the Onshore Facility site provide suitable nesting and foraging habitat for birds and raptors. Bird species observed during the biological survey included Bewick's wren (*Thryomanes bewickii*), American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), yellow-rumped warbler (*Setophaga coronate*), northern flicker (*Colaptes auratus*), white-crowned sparrow (*Zonotrichia leucophrys*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), and spotted towhee (*Pipilo maculatus*).

Mammals. The disturbed nature of the majority of the Project site provides minimal cover or denning opportunities for mammal species. Coyote (*Canis latrans*) tracks were observed during the field surveys, however no other sign of mammals was recorded. Common mammal species that occur in the region and would be likely to occur in the Project site include California ground squirrel, Botta's pocket gopher, and deer mice. Bat species are known to roost in trees and structures throughout Ventura County. Bats use trees and man-made structures for daytime and nighttime roosts; however, the tree stands on the Project site are discrete, lack roosting characteristics (tree hollows, narrow slots or crevices), and do not support suitable bat roosting habitat. In addition, there are no structures on the Project site.

4.3.1.4 Special Status Species

Based on the literature review and species lists obtained from U.S. Fish and Wildlife Service (USFWS) (IPaC Trust Resource Report) (Ventura Office Consultation code: 08EVEN00-2021-SLI-0442) and from NMFS for Pitas Point quadrangle, a list of marine and terrestrial special status species that have been reported within a 5-mile radius surrounding Rincon Island, the SCC Parcel, OPC, and Onshore Facility is included as Appendix D4. Based on these species lists, 55 special status species have been reported within a 5-mile radius surrounding the Project vicinity. The table in Appendix D4 also includes the rationale for why certain species were excluded from further analysis in this document (i.e., Crotch's bumblebee [*Bombus crotchii*] and San Diego wood rat [*Neotoma lepida intermedia*]).

Special status species that are likely to occur in marine and terrestrial habitats are described separately in the sections below.

Marine Special Status Species

The southern California coast supports numerous special status invertebrates, fish, birds, and marine mammals. For the purposes of this analysis, special status marine species are those species that may utilize Rincon Island, the associated causeway, or the immediate waters around these Project sites for migration, foraging, or breeding. Definitions of special status species and habitats included in this environmental assessment are listed below:

- Species that are listed or proposed for listing as threatened or endangered under FESA (50 Code of Federal Regulations [CFR] 17.11 [listed animals], 50 CFR 17.12 [listed plants], And various notices in the Federal Register [FR])
- Species that are candidates for possible future listing as threatened or endangered under FESA (81 FR 87246 87272, December 2, 2016)
- Species that are listed or proposed for listing by the State of California as threatened or endangered under CESA (Cal. Code Regs, tit.14, § 670.5)
- Animals listed as California Species of Special Concern on CDFW's Special Animals List (CDFW 2023a)

- Marine mammal species afforded protection by NMFS under the Marine Mammal Protection Act (MMPA)
- Species considered rare, threatened, or endangered under CEQA Guidelines 15380(d), as the species' survival is in jeopardy due to loss or change in habitat

Special Status Plants

Based on literature review and biological field surveys, there are no special status plant species that are known to occur or have the potential to occur within the marine habitats of the Project sites.

Special Status Wildlife

The determinations for the potential for species to occur in the Project area are based on the species' range and habitat requirements, the habitats present within the Project area, and observed vegetation and wildlife present during field surveys. In addition, species typically associated with other regional habitat types may use the SBC as a movement corridor. Based on the ranges, habitat requirements of the species and the habitats present within the Projects sites, a total of 14 managed or protected marine species (black abalone, white abalone, bocaccio, California brown pelican, osprey, double-crested cormorant, California least tern, common dolphin, coastal bottlenose, gray whale [Eastern and Western Pacific Distinct Population Segment (DPS)], humpback whale [Central America and Mexico DPS], minke whale, California sea lion, and Pacific harbor seal) have the potential to occur in the waters around Rincon Island, the causeway, and SCC Parcel.

Abalone. Rincon Island and the causeway are located within the range of the federally endangered black and white abalones. Black abalone live in rocky intertidal and subtidal reefs (out to 18 feet deep) where they are generally found in rock crevices and feed on drifting giant kelp and feather boa kelp (*Egregia menziesii*). White abalone live on rocky substrates alongside sand channels and are found at depths of 50 to 180 feet. They feed on algae that accumulates within the sand channels between deep rock reefs and are more often found out of crevices but camouflaged by the algae that grows on their shells. The intertidal and subtidal habitats in the Project area are patchy and not suitable for endangered abalone species; therefore, there is a low likelihood they would occur.

Bocaccio. Bocaccio are large Pacific rockfish that range from Punta Blanca, Baja California, to the Gulf of Alaska off Krozoff and Kodiak Islands. They are most common between Oregon and northern Baja California. The Puget Sound/Georgia Basin distinct population segment of bocaccio are listed as endangered under FESA. Bocaccio are slow growing, late to mature, and long-lived. They are known to inhabit waters from the surface (young/juvenile) to 1,050 feet. The subsea tetrapods around the Rincon Island Project site, the Causeway pilings, and the natural rock outcrops in the Project area provide suitable habitat for juvenile or young-of-the-year bocaccio. Therefore, this species has the potential to occur in the offshore Project area.

California brown pelican. The California brown pelican was formerly listed under CESA and is now fully protected under the California Fish and Game Code. California brown pelican breed and nest on the California Channel Islands; specifically large breeding colonies are present on West Anacapa and Santa Barbara Islands. There is no record of pelicans nesting on the Rincon Island Project site; however, they use the tetrapods and causeway for year-round roosting. Pelicans are also known to forage in the coastal waters adjacent to the offshore Project sites.

Osprey. The osprey is listed on the CDFW watch list for nesting and breeding areas. No nesting or breeding activity has been observed in or adjacent to Rincon Island or the causeway; however, osprey are known to forage in the waters and roost in the palm trees around Rincon Island ; therefore, there is a high likelihood that they are present.

Double-crested cormorant. The double-crested cormorant is listed on the CDFW watch list for nesting and breeding areas. They nest in colonies in the north-central region of North America but forage on the California coast during the non-breeding season. Double-crested cormorant are frequently present and roosting on the Rincon Island tetrapods and foraging in the waters around the Island.

California least-tern. California least-tern are listed as a federally Threatened species. They can be found foraging along the California coast at sandy beaches, estuaries, lagoons, lakes, and rivers. The nearest nesting colony to the Project site is located at McGrath State Beach in Oxnard, approximately 15 miles south of the Rincon Island Project site. California least terns typically migrate to the nesting areas by mid- to late-April and are generally present through September. Nesting colonies are formed in sandy soils with little vegetation along the ocean, lagoons, and bays where they forage by plungediving for small fish (i.e., anchovy and silversides [*Antherinopsidae* sp.]). Nesting habitat does not occur within the Project area; however, foraging habitat is present adjacent to the Project sites; therefore, California least tern have a moderate potential to occur.

Cetaceans. All cetaceans, which include both baleen and toothed whales and dolphins, fall under the protection of the MMPA. In addition, some whale species that may occur near Rincon Island and the causeway are listed as federally Threatened or Endangered species. Cetaceans use the marine habitats offshore of the Project sites for year-round foraging and daily or seasonal migration routes. Dolphins that are expected to occur in waters around the Project area include long- and short-beaked common dolphins and coastal bottlenose dolphin. Common dolphins, the most abundant cetaceans off California, move through regional waters in groups of up to several thousand animals. Coastal bottlenose dolphins are most commonly encountered along the shoreline in the surf zone. Larger whales, such as gray, humpback, and minke whale are known to migrate and forage in coastal waters and may be observed in waters further offshore of the Project sites. A small number of the federally Endangered western North Pacific gray whale have been reported to migrate to the breeding grounds in the Eastern Pacific. This group of western North Pacific gray whales have a moderate likelihood to occur in the Project area during southbound migration October through March, or during their northbound migration in late January through July. The federally Threatened (Mexico DPS) and Endangered (Central America DPS) species of humpback whales are more likely to occur in the Project area during the months of March through September when their target prey congregates in the Santa Barbara Channel. Minke whale are a discrete species of whale that occur year-round in California coastal waters.

Pinnipeds. Two species of pinnipeds (California sea lion and Pacific harbor seal) have the potential to occur on and adjacent to Rincon Island and the SCC Parcel. Most pinnipeds in the Project region breed on the Channel Islands and on offshore rocks and isolated beaches along the mainland coast. California sea lions and Pacific harbor seals commonly occur in nearshore waters offshore Ventura beaches. Sea lions and harbor seals haul out on nearshore rocks and beaches along the Ventura coast and on the northern Channel Islands; major mainland haul-out sites near the Project area are located near Carpinteria Crescent Rock and the Carpinteria harbor seal rookery near Casitas Pier, approximately 4.5 miles north of the Project sites. Sea lions and harbor seals are occasionally reported hauling-out on the Rincon Island tetrapods and are highly likely to occur in the offshore Project area.

Terrestrial Special Status Species

Special status species are plants and animals legally protected under FESA, CESA, or other regulations as well as species that the scientific community considers sufficiently rare to qualify for such protection. Special status terrestrial species are defined as follows:

- Species that are listed or proposed for listing as threatened or endangered under FESA (50 Code of Federal Regulations [CFR] 17.11 [listed animals], 50 CFR 17.12 [listed plants]. And various notices in the Federal Register [FR])
- Species that are candidates for possible future listing as threatened or endangered under FESA (81 FR 87246 87272, December 2, 2016)
- Species that are listed or proposed for listing by the State of California as threatened or endangered under CESA (Cal. Code Regs, tit.14, § 670.5)
- Animals listed as California Species of Special Concern on CDFW's Special Animals List (CDFW 2023a)
- Plants listed as rare under the California Native Plant Protection Act (Fish & G. Code 1900 et seq.)
- Plants with a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, and 2B (CDFW 2023b), and that the scientific community considers threatened or endangered in California
- Plants designated as CRPR 3 and 4 with a locally significant population that meets the criteria under State CEQA Guidelines, section 15380, subdivision (d)

The determinations for the potential to occur in the Project sites are based on the species' range and habitat requirements, the habitats present within the Project area, and observed vegetation and wildlife present during field visits. In addition, species typically associated with other regional habitat types may use the highly disturbed, ruderal vegetation areas as a movement corridor.

The onshore Project sites are located outside of the known geographic range and lack suitable habitat for many of the terrestrial special status species identified during desktop reviews. Therefore, these special status species have no potential to occur on the Project sites and are not discussed further in this section. The special status species that could potentially occur or that were observed during the field survey are discussed in more detail below.

Special Status Plants

Based on literature review and a biological survey, there are no special status plant species that are known to occur or have the potential to occur within the terrestrial habitats of the Project sites. See Appendix D4 for detail.

Special Status Wildlife

There are two special status wildlife species that are known to occur or have the potential to occur within the terrestrial Project sites based on habitat availability and known locations of species within the vicinity. Certain species, such as vernal pool invertebrates, insects, and amphibian species, may occur within the quadrangle or within 5 miles of the Project sites; however, based upon a thorough analysis, these species were determined to be absent due to a lack of suitable habitat. Other species may have been eliminated from consideration because the Project sites are beyond the recorded geographic or elevational range for these species. Based upon habitats and vegetation communities observed and the criteria described above, a total of two managed or protected species (Monarch butterfly and western snowy plover) have the potential to be found on the Project sites and are described below.

Monarch Butterfly. In California, monarchs are included on the CDFW Terrestrial and Vernal Pool Invertebrates of Conservation Priority list and identified as a Species of Greatest Conservation Need in California's State Wildlife Action Plan (CDFW 2015). In 2020, the USFWS found that listing the monarch butterfly was warranted under the FESA, but at the time was precluded by other listing actions; USFWS is currently planning to list the monarch butterfly in 2024. Monarch butterflies were observed roosting at the Onshore Facility on November 2, 2021, but were not observed onsite during the March 13 or September 8, 2023, field surveys. Winter storms damaged some of the tree stands and caused the loss of one Monterey cypress tree; however, several Monterey cypress trees still provide suitable roosting habitat at the Onshore Facility Project site. It is unknown if this site is used only as an autumnal roost (typically occupied from October to December) or an overwintering site (typically used through February), or if the roost is used on a regular, annual basis. The Onshore Facility is located between two different coastal overwintering sites along Highway 101: one is located approximately 5 miles north, adjacent to Rincon Creek (California Natural Diversity Database [CNDDB] Occurrence No. 268) and the other is approximately 7 miles south near Main Street in the City of Ventura (CNDDB Occurrence No. 294) (CNDDB 2023). These overwintering sites were active in 2017 and 2021, respectively. There is a high likelihood that, at a minimum, monarch butterflies will continue to use the Onshore Facility as an autumnal roost.

Western Snowy Plover. Western snowy plover are listed as a federally threatened species and a California Species of Concern. Wintering populations of snowy plover are known to forage on Ventura County beaches; however, there is no suitable nesting habitat located at the SCC Parcel site, as it is currently accessible to the public and attracts year-round recreational use. The nearest reported nesting area is at McGrath Beach in Oxnard approximately 15 miles south of the SCC Parcel site. Therefore, this species has the potential to occur during the non-breeding season on the beach area of the SCC Project site.

4.3.2 Regulatory Setting

Federal and state laws and regulations pertaining to biological resources and relevant to the Project, including CCA, are discussed in Appendix B. Local policies or regulations applicable to the Project with respect to biological resources are presented below.

4.3.2.1 Local

<u>Ventura County 2040 General Plan (2020)</u>

<u>Conservation and Open Space Element</u>

Policies included within the Ventura County 2040 General Plan Conservation and Open Space Element (Ventura County 2020) include the following related to protection of biological resources:

- **Policy COS-1.1: Protection of Sensitive Biological Resources**. The County shall ensure that discretionary development that could potentially impact sensitive biological resources be evaluated by a qualified biologist to assess impacts and, if necessary, develop mitigation measures that fully account for the impacted resource. When feasible, mitigation measures should adhere to the following priority: avoid impacts, minimize impacts, and compensate for impacts. If the impacts cannot be reduced to a less than significant level, findings of overriding considerations must be made by the decision-making body.
- **Policy COS-1.10: Evaluation of Potential Impacts of Discretionary Development on Wetlands**. The County shall require discretionary development that is proposed to be located within 300 feet of a wetland to be evaluated by a County-approved biologist for potential impacts on

the wetland and its associated habitats pursuant to the applicable provisions of the County's Initial Study Assessment Guidelines.

- **Policy COS-1.13: Partnerships for Protection of Natural and Biological Resources**. The County shall continue to work in partnership with agencies, organizations, and entities responsible for the protection, management, and enhancement of the County's biological resources.
- **Policy COS-2.8: Coastal Fisheries**. The County shall encourage community programs that are designed to improve the quality of coastal fisheries and marine resources.
- **Policy COS-2.11: Dune Vegetation**. Discretionary development which would result in the removal of dune vegetation shall be conditioned to replace the vegetation.

Ventura County Coastal Area Plan

Local policies or regulations applicable to this area with respect to biological resources are listed below. Ventura County's CAP was prepared in accordance with the CCA (included above), and established goals for future activity in the coastal zone. The policies that reflect these goals are included below:

- **ESHA Protection Policy 1.1: Environmentally Sensitive Habitat Areas (ESHA).** ESHA shall be protected against any significant disruption of habitat values, and only uses dependent upon those resources shall be allowed within those areas, except as specifically allowed in ESHA Policy 4.1(b) and Policy 4.2 below. In those cases, adverse impacts on ESHA shall be avoided, to the maximum extent feasible, and unavoidable impacts shall be minimized and mitigated.
- **ESHA Protection Policy 1.3: Coastal Waters, Wetlands, and Marine Resources.** Protect, maintain and, where feasible, restore the biological productivity and quality of coastal waters, streams, wetlands, estuaries, lakes, and marine resources.
- **ESHA Siting and Design Techniques for Development Policy 5.3: Adjacent Development.** Development in areas adjacent to ESHA, in buffer zones, and parklands/protected open space areas acquired by natural resource agencies or conservation organizations for natural resource protection, shall be sited and designed to prevent the degradation of, and be compatible with the continuance of, the adjacent biological resources.
- **ESHA Siting and Design Techniques for Development Policy 5.9: Alteration of Landforms.** Development shall be sited and designed in a manner that

will minimize grading, alteration of natural landforms, and brush/vegetation removal to avoid adverse effects on the ecological function of (and water quality within) wet environments, wetlands, coastal waters, and other ESHA.

- **ESHA Siting and Design Techniques for Development Policy 5.16: Signs**. Signs are prohibited within ESHA except for resource protection or trail interpretative and educational signage, or signage necessary to ensure public safety. Signage within ESHA or its buffer shall be sited and designed to minimize impacts on the resource to the maximum extent feasible.
- **ESHA - Siting and Design Techniques for Specific Coastal Habitats Policy 6.1(c): Coastal Dune Habitats**. Disturbed dune habitats shall be restored in a manner that accommodates the ecological needs of sensitive native dune species. Dune habitat restoration shall, to the maximum extent feasible, utilize low-intensity vegetation removal techniques that are least impactful on the dune ecosystem.
- **ESHA - Siting and Design Techniques for Specific Coastal Habitats Policy 6.1(d): Coastal Dune Habitats.** Native vegetation, preferably grown from local seed sources, shall be used to stabilize coastal dunes and restore dune habitat, and non-native vegetation shall be removed where appropriate.
- **ESHA - Siting and Design Techniques for Specific Coastal Habitats Policy 6.4: Nearshore Water Environments**. To reduce impacts on nearshore shallow water environments that are used by fish, shellfish, birds, and other aquatic organisms, best management practices (BMPs) and other mitigation measures shall be used within development to protect the water quality of terrestrial wet environment connected to the Pacific Ocean. Adverse impacts to coastal resources shall be prevented by timing the construction of the project to avoid disruption of breeding or nesting birds or fish. Development shall be sited to avoid coastal hazards, taking into account projected sea level rise (SLR), and to allow for the migration of habitat areas to the maximum extent feasible.
- **ESHA - Siting and Design Techniques for Specific Coastal Habitats Policy 6.5: Shorebird Populations**. Beach maintenance activities shall not adversely impact nesting and foraging shorebird populations.
- **ESHA - Siting and Design Techniques for Specific Coastal Habitats Policy 6.6: Grunion Fish**. During spawning periods for grunion (March through August), beach maintenance activities shall not disturb grunion eggs.

- **ESHA - Siting and Design Techniques for Specific Coastal Habitats Policy 6.9: Beaches/Intertidal Areas**
    a) An applicant for any coastal project, including shoreline protective devices, will show that its proposal will not cause long-term adverse impacts on beach or intertidal areas. Impacts include, but are not limited to, shoreline sand supply, destruction of the rocky substrate, smothering of organisms, contamination from improperly treated wastewater or oil, and runoff from streets and parking areas. Findings to be made will include, but not be limited to, proper wastewater disposal.
    b) Placement or removal of any sand, fill, rocks or dredged material along beaches or intertidal areas, including beach replenishment and the creation of new dune habitats, shall be carried out utilizing the best available science that includes, but is not limited to, SLR projections, and in consultation with the State Department of Fish and Wildlife and other natural resource agencies. Such activities shall be designed to minimize adverse impacts on beach, intertidal and offshore coastal resources.
- **ESHA - Siting and Design Techniques for Specific Coastal Habitats Policy 6.10: Wet Environments and Wetlands**. All development on land adjacent to or within a wetland or wet environment, or within 500 feet of such environments, shall be sited and designed to maintain water quality and prevent degradation of the ecosystem function. The purposes of such development projects shall be limited to those set forth in Sections 30233(a) and 30236 of the Coastal Act. Discretionary development that would adversely impact a wetland habitat shall be prohibited unless there is no feasible less environmentally damaging alternative and if feasible mitigation measures are provided to minimize adverse environmental effects.
- **ESHA - Siting and Design Techniques for Specific Coastal Habitats Policy 6.17: Plant and Tree Communities**. The removal or alteration of tree communities that constitute ESHA is prohibited, and development, including roads or driveways, shall be sited and designed to avoid damage to such tree communities.
- **ESHA - Siting and Design Techniques for Specific Coastal Habitats Policy 6.19: Wildlife and Plant Habitat Connectivity Corridors**. Development shall be sited and designed to support biodiversity and to protect and enhance wildlife and plant habitat connectivity corridors as follows:

a) Avoid the fragmentation of core habitat areas.

b) Avoid the creation of corridor chokepoints and enhance habitat within existing corridor chokepoints.

c) Minimize indirect impacts (e.g., lighting, noise, human-wildlife interactions) that alter wildlife behavior.

d) Avoid the placement of new structures or other barriers that disrupt species movements through habitat connectivity corridors.

- **ESHA Policy 7.2: Habitats Supporting Critical Life Stages**. During bird breeding seasons, nesting and roosting areas shall be protected from disturbance associated with development or outdoor festivals/outdoor sporting events. Also, during bird migration season, such disturbance shall be avoided within bird staging/stopover sites.
- **ESHA Policy 7.4: Habitats Supporting Critical Life Stages**. Colonial roosting habitat for butterflies, such as monarch butterfly overwintering sites, shall be preserved and protected from disturbance and degradation associated with development.
- **ESHA Policy 7.5: Habitats Supporting Critical Life Stages**. Marine Mammal rookeries and hauling ground habitats shall be preserved and protected from disturbance and degradation associated with development, outdoor festivals, and outdoor sporting events.
- **Water Efficient Landscaping**: **Policy 4.** Landscaping adjacent to ESHA, designated open space and parkland areas shall preserve, protect and, where feasible, enhance such areas.

4.3.2.2 Coastal Wetlands

State regulatory agencies with jurisdiction over wetlands include the State Water Resources Control Board that enforces compliance with the Federal Clean Water Act (Section 401) regulating water quality and the California Coastal Commission (CCC), which regulates development within the coastal zone as stipulated in the CCA (Sections 30230, 30231, 30233, and 30240 apply to preservation and protection of wetlands).

The CCC's regulations establish a "one parameter definition" that only requires evidence of a single parameter to establish coastal wetland conditions:

> Wetland shall be defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric

> soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats. (14 CCR Section 13577).

The CCC's regulations provide general decision rules for establishing the upland boundary of coastal wetlands:

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

The Los Sauces Creek corridor meets the CCC's wetland definition and is considered coastal wetlands. Proposed soil remediation activities at the Onshore Facility would be located at least 100 feet from these wetlands, also in compliance with County regulations.

4.3.3 Significance Criteria

The following significance thresholds are taken from the Ventura County Initial Study Assessment Guidelines (2011).

4.3.3.1 Special Status Species

A project has the potential to create a significant impact to biological resources if it has a direct or indirect physical impact to a plant or animal species because it directly or indirectly:

a) reduces a species' population

b) reduces a species' habitat

c) increases habitat fragmentation

d) restricts reproductive capacity

4.3.3.2 Wetlands

The following project impacts to waters and wetlands are considered potentially significant:

- Removal of vegetation, grading obstruction or diversion of water flow, change in velocity, siltation, volume of flow, or runoff rate, placement of fill, placement of structures, construction of a road crossing, placement of culverts or other underground piping; or any disturbance of the substratum.
- Disruptions to wetland or riparian plant communities would isolate or substantially interrupt contiguous habitats, block seed dispersal routes, or increase vulnerability of wetland species to exotic weed invasion or local extirpation.
- Interference with ongoing maintenance of hydrological conditions in a water or wetland. The hydrology of wetlands systems must be maintained if their function and values are to be preserved.

4.3.3.3 ESHA

The following types of impacts to ESHA are considered potentially significant:

- Construction, grading, clearing, or other activities and uses that would temporarily or permanently remove ESHA or disturb ESHA buffers (within 100 feet of the boundary of ESHA as defined in Section 8172-1 of the Coastal Zoning Ordinance).
- Indirect impacts resulting from project operation at levels that would degrade the health of an ESHA.

4.3.4 Impact Analysis and Mitigation

Potential Project-related impacts to biological resources are evaluated below. Table 4.3-1 provides a summary of impacts and recommended MMs to address these impacts.

Impact BIO-1: Temporary Disturbance to Foraging, Roosting, and Nesting Birds, Including California Brown Pelican, Osprey, and Double-Crested Cormorant

Decommissioning Project activities would temporarily impact roosting habitat or disturb bird nesting or breeding **(Less than Significant with Mitigation).**

Impact Discussion

Rincon Island

California resident and migratory birds are known to utilize Rincon Island and the causeway as a roosting area; however, the Island and causeway provide marginal to unsuitable nesting habitat, and there has been no evidence of nesting observed. The roosting bird population on the Island and causeway is dominated by cormorants (including double-crested cormorant) and California brown pelican (a fully protected species) (Appendices D3 and D4). In addition, osprey have been observed roosting in palm trees at Rincon Island.

Birds have been roosting on Rincon Island and the causeway since the Island was built, including during active oil production operations. The abundance of birds on the Island has increased since the discontinuation of oil production; however, it was reported that birds continued to roost on the perimeter of the Island and causeway during the Phase 1 well plugging and abandonment activities. The proposed Project decommissioning activities would include the use of heavy equipment and construction crews, which would create noise and may disturb roosting birds. Rincon Island building structure demolition, deck removal, and soil remediation would be scheduled intermittently over a total of approximately 15 months. Project activities on the Island and causeway would take several days to ramp up to full activity level, beginning with equipment mobilization and staging, and would not cause an immediate displacement of all roosting birds. If birds are displaced due to Project activities, the region has other roosting habitats, including nearby local beaches and associated coastal revetments and groins, as well as the Ventura Pier and the Ventura Harbor breakwater, which would temporarily provide habitat for the birds.

In addition, based on past observations, it is likely the birds would acclimate to the presence of Project equipment and would continue to roost on the outer seaward tetrapods of the Island. Therefore, Project activities would not substantially inhibit foraging and roosting activities. No suitable nesting habitat or evidence of nesting has been observed. Therefore, impacts on foraging, roosting and nesting birds are considered less than significant, including potential impacts to special status species (California brown pelican, double-crested cormorant, and osprey).

Public Facilities Retention Option

The public facilities retention option is confined to the interior of the Island and would not require additional ground disturbance to retain the septic and wastewater infrastructure, therefore decreasing the overall work duration on Rincon Island. Project activities and impacts would be similar to the discussion above, but for a shorter duration; therefore, impacts to foraging, roosting and nesting birds would be less than significant.

SCC Parcel

Option 1: Native Revegetation and Access Improvements

The SCC Parcel is currently accessible to the public and attracts year-round recreational use which reduces foraging opportunities for shorebirds and prevents nesting and roosting. Shorebirds that utilize the SCC Parcel for foraging habitat along the shoreline would be temporarily, indirectly impacted due to noise and the presence of Project equipment and crews during the proposed improvement activities. Option 1 Project activities are scheduled to take 10 workdays to complete. A large portion of this work would be completed by hand; however, heavy equipment would be needed for installation of the access stairway and demolition related to removal of coastal hazards along the shoreline. Because nesting and roosting are unlikely to occur on the SCC Parcel, mortality or injury to nesting birds would not result from Project activities. In addition, it is anticipated that foraging birds temporarily displaced by Project activities would find suitable habitat at other beaches nearby including Mussel Shoals, La Conchita, and Oil Piers beach. Therefore, impacts to foraging, roosting, and nesting birds would be less than significant.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

The impacts to foraging, roosting, or nesting birds during Option 2 would be similar to those discussed in Option 1; however, Option 2 would require 20 workdays to complete all improvement tasks. Additionally, heavy equipment would be utilized to regrade the parcel to accommodate placement of the cobble back berm and replace the native soils and vegetation. Because nesting and roosting are unlikely to occur on the SCC Parcel, mortality or injury to nesting or roosting birds would not result from Project activities. Any displaced foraging birds would be precluded from the area for an additional 10 days during these activities. However, it is anticipated that birds would find suitable foraging habitat at the adjacent beaches; therefore, impacts to foraging, roosting, and nesting birds would be less than significant.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

The impacts to foraging, roosting, or nesting birds during Option 3 would be similar to those discussed in Option 1; however, Option 3 would require 25 workdays to complete all improvement tasks. Heavy equipment, including the use of a small crane, would be required to place the riprap along the gap in the shoreline. Because nesting and roosting are unlikely to occur on the SCC Parcel, mortality or injury to nesting or roosting birds would not result from Project activities; however, during this time, foraging birds would be precluded from the area for an additional 15 days. However, it is anticipated that birds would find suitable foraging habitat at the adjacent beaches; therefore, impacts to foraging, roosting, and nesting birds would be less than significant.

Onshore Pipeline Connections

The OPC site does not support suitable foraging, roosting, or nesting habitat for birds due to its lack of vegetation in the work aera and proximity to the U.S. Highway 101 and railroad tracks. Project activities would have no effect on foraging, roosting, or nesting birds in the OPC Area.

Onshore Facility

Although the Onshore Facility provides limited habitat, the tree stands (Monterey cypress, red gum) and other woody vegetation (melaleuca, myoporum) at the Onshore Facility site may provide suitable foraging, roosting, or nesting habitat for birds and raptors. The options below include the installation of a physical barrier (sheet pile wall) between the Onshore Facility and the adjacent privately-owned Coast Ranch parcel to assess the worst-case scenario. It is important to note that this sheet pile wall would not be necessary if remediation activities at the Coast Ranch parcel were proposed to occur at the same time as the Project.

Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation

Option 1 only includes a short duration of construction activities (approximately 22 workdays or 5 weeks) for installation of the steel sheet pile wall and placement of additional surface cap material. Additionally, minimal vehicle and pedestrian traffic on the Project site would be required for groundwater monitoring (approximately 10 workdays over 5 years). The proposed use of excavators and vibratory hammers will temporarily create noise that may disturb foraging, roosting, or nesting birds. Implementation of **MM BIO-1a** and **MM BIO-1b** would avoid potential impacts from construction noise and activity by scheduling ground disturbing activities outside of nesting season or requiring pre-construction surveys to identify and protect active nests, if present, and requiring an environmental awareness training for all Project personnel. With the implementation of **MM BIO-1a** and **MM BIO-1b**, the impact would be less than significant.

Options 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation

Project activities for Option 2 at the Onshore Facility, including equipment mobilization, installation of the steel sheet pile wall, ground disturbance for soil remediation, and trucking, may disrupt foraging, roosting, or nesting birds, if present at the site. Proposed use of heavy equipment and heavy-duty trucks for Option 2 may result in disturbance of nesting birds in landscaped windrows and tree stand habitat. Trees would not be removed as part of Option 2; however, noise and ground disturbances from sheet pile installation, excavation of contaminated soils, and trucking would occur for approximately 45 workdays (9 weeks). Following soil remediation, one year of groundwater monitoring would be required (including approximately 4 workdays over 1 year) although monitoring activities would not be a significant change to baseline conditions on the site. Implementation of **MM BIO-1a** and **MM BIO-1b** would avoid potential impacts from construction noise and activity by scheduling ground disturbing activities outside of nesting season or requiring pre-construction surveys to identify and protect active nests, if present, and requiring an environmental awareness training for all Project personnel. With the implementation of **MM BIO-1a** and **MM BIO-1b**, the impact would be less than significant.

Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation

Sheet pile driving and the proposed use of heavy equipment and heavy-duty trucks for Option 3 may result in disturbance of foraging, roosting, or nesting birds and nesting habitat in vegetation windrows or tree stands. Trees and vegetation would not be removed as part of Option 3; however, excavation of contaminated soils would require approximately 57 workdays (12 weeks) of initial digging and then hauling of soil to an onsite soil treatment area. In addition, soil treatment would require equipment operations 1 day per week for approximately 6 years. The soil treatment location would be located on the west side of the Project site in an area graded and devoid of vegetation approximately 100 feet from the Los Sauces Creek riparian corridor. In-situ soil treatment would not significantly increase activity on the west side of the Project site. The highest intensity activity would occur during ground disturbance and hauling activities. Implementation of **MM BIO-1a** and **MM BIO-1b** would avoid potential impacts to nesting birds from construction noise and activity by scheduling ground disturbing activities outside of nesting season or requiring pre-construction surveys to identify and protect active nests, if present, and requiring an environmental awareness training for all Project personnel. With the implementation of **MM BIO-1a** and **MM BIO-1b**, the impact would be less than significant.

<u>Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation</u>

Sheet pile driving and the proposed use of heavy equipment and heavy-duty trucks for Option 4 may result in disturbance of foraging, roosting, or nesting birds, if present, or nesting habitat. Trees would not be removed as part of Option 4; however, the in-situ mixing and treatment of soils would require approximately 55 workdays (11 weeks) of equipment operation on the Project site. In comparison to Options 2, 3 and 5, soil will not be exported offsite, so there will be significantly fewer truck trips to and from the site. Even with less truck trips overall (10 cement truck trips), nesting birds may still be disturbed by noise or equipment and human activity during ground disturbance and equipment operation. Implementation of **MM BIO-1a** and **MM BIO-1b** would avoid potential impacts from construction noise and activity by scheduling ground disturbing activities outside of nesting season or requiring pre-construction surveys to identify and protect active nests, if present, and requiring an environmental awareness training for all Project personnel. With the implementation of **MM BIO-1a** and **MM BIO-1b**, the impact would be less than significant.

<u>Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation</u>

Option 5 would be carried out similarly to Option 2; however, due to the reduced excavation depth, Option 5 would require fewer truck trips overall (72 for export and import) and therefore less total disturbance if foraging, roosting, or nesting birds are present. Sheet pile driving and the proposed use of heavy equipment and heavy-duty trucks for Option 5 may result in disturbance of nesting birds and habitat for approximately 25 workdays (5 weeks). Implementation of **MM BIO-1a** and **MM BIO-1b** would avoid potential impacts from construction noise and activity by scheduling ground disturbing activities outside of nesting season or requiring pre-construction surveys to identify and protect active nests, if present, and requiring an environmental awareness training for all Project personnel. With the implementation of **MM BIO-1a** and **MM BIO-1b**, the impact would be less than significant.

Mitigation Measures

MM BIO-1a: Onshore Facility Nesting Season Avoidance or Pre-Construction Surveys. Project-related ground-disturbing activities would be scheduled at the Onshore Facility outside of the February 15 to August 1 nesting season; however, if activities must be scheduled within that timeframe, then pre-construction surveys of bird nesting habitat shall be conducted no more than 7 days prior to the planned start of construction within 500 feet of work areas to identify raptor and passerine nest sites. If an active raptor or passerine bird nest is identified, an appropriate species-specific nest protection buffer shall be delineated by a CSLC-qualified biologist in coordination with the California Department of Fish and Wildlife (CDFW). A pre-construction nesting survey report shall be prepared and submitted to CDFW and CSLC prior to the start of construction that outlines the surveys conducted, nest locations identified, and recommended nest protection buffers. Construction activities shall be prohibited within the established buffers until the young have fledged or the nest is abandoned. If a lapse in Project-related activities occurs for 14 days or longer, another focused survey is required before Project activities can be reinitiated.

MM BIO-1b: Environmental Awareness Training. A CSLC-approved biologist shall conduct environmental awareness training for all Project personnel to familiarize workers with potential special status species and their habitat, applicable regulatory requirements, and measures that must be implemented to avoid or minimize potential impacts to sensitive habitat. Training materials shall be approved by CSLC staff 2 weeks prior to implementation.

Impact BIO-2: Temporary Effects to ESHA

Project activities would result in loss or disturbance of intertidal, beach, and riparian ESHA **(Less than Significant).**

Impact Discussion

Rincon Island

The intertidal habitat at the base of the causeway abutment is considered ESHA. The proposed Project does not include the removal of Rincon Island or associated causeway structures (including the abutment); therefore, there will be no impact to the intertidal ESHA.

Public Facilities Retention Option

The public facilities retention option is confined to the interior of the Island and does not include removal of Rincon Island or associated causeway structures; therefore, there will be no impact to the intertidal ESHA.

SCC Parcel

Option 1: Native Revegetation and Access Improvements

SCC Parcel Option 1 includes removal of non-native vegetation, access improvements, placement of a stairway to facilitate access on the eastern end of the parcel, demolition of coastal hazards along the shoreline, and revegetation with native plants. A majority of the Project activities and equipment required in support of Option 1 would be located on the bluff at the back of the parcel adjacent to the Mussel Shoals community and would not have any effect on ESHA identified within the beach portion of the parcel; however, the preliminary plans for Project activities associated with installation of the access stairway and demolition of the coastal hazards would temporarily preclude use of the beach ESHA by shorebirds and other wildlife. These activities would only occur during a small portion of the approximately 10 days of work.

Since no permanent loss of ESHA would occur and habitat quality would be improved through native revegetation, impacts to ESHA are considered less than significant.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

Option 2 Project activities would require equipment to access the beach during the construction of the cobble back berm. Project activities would temporarily preclude use of the beach ESHA by shorebirds and other wildlife; however, the beach activities would only occur during a small portion of the approximately 20 days of work. In the long-term, proposed improvements would stabilize the bluff and replace invasive plants (hottentot-fig ice plant) with native vegetation. Since impacts to the beach ESHA would be temporary and there would be no permanent loss of habitat, impacts to ESHA are considered less than significant.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

Option 3 Project activities would be similar to those discussed in Option 2; however, Option 3 would require approximately 25 workdays to complete all improvement tasks. In addition, the placement of riprap along the bluff would permanently displace approximately 0.04 acres (1,742 square feet) of beach area ESHA with riprap rock, which already occurs in the area. In the long-term, proposed improvements would stabilize the bluff and replace invasive plants (hottentot-fig ice plant) with native vegetation. Since impacts to the beach ESHA would be temporary and cause only minor displacement of habitat, impacts to ESHA are considered less than significant.

Onshore Pipeline Connections

There is no ESHA in the OPC Project site; therefore, there will be no impact.

Onshore Facility

Options 1 through 5

Los Sauces Creek transects the Onshore Facility as it transitions from a concrete channel in the former oil field and flows under bridges of the Union Pacific Railroad tracks and PCH to culverts under U.S. Highway 101 to the Pacific Ocean. Ventura County designates all creek corridors as ESHA; however, all Project activities proposed in Options 1 through 5 at the Onshore Facility would avoid the Los Sauces Creek ESHA by at least 100 feet or more, which is outside of the disturbance buffer distance designated by the County; therefore, impacts to ESHA would be less than significant.

Mitigation Measures

None required.

Impact BIO-3: Temporary Impacts to Monarch Butterflies at the Onshore Facility

Soil remediation activities at the Onshore Facility may disturb roosting monarch butterflies and could result in mortality **(Less than Significant with Mitigation)**.

Impact Discussion

Suitable habitat for Monarch butterfly roosting does not exist at Rincon Island, the SCC Parcel, or the OPC. Potential impacts of Project activities at the Onshore Facility are discussed below.

Onshore Facility

<u>Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation</u>

Roosting monarch butterflies have been observed within tree stands at the Onshore Facility. Equipment associated with installation of the sheet pile wall, groundwater bioremediation, and trucking of additional asphalt material may result in disturbance of the monarch butterfly roost or avoidance of the roosting tree stand habitat. Trees would not be removed as part of the Project. Equipment mobilization and groundwater bioremediation activities on the Project site would be required during approximately 22 workdays (5 weeks) for surface cap installation and approximately 10 workdays over 5 years for groundwater monitoring. Although Option 1 does not require truck trips for hauling of materials to an offsite disposal facility, trucking would be necessary for equipment mobilization and demobilization and site access to facilitate monitoring during groundwater bioremediation activities. If repeatedly disturbed by noise or equipment and human activity, monarch butterflies may expend valuable energy resources needed to complete their migration to spring and summer breeding grounds either by leaving and returning to the roost or avoiding the roost altogether, creating significant impacts to the local monarch butterfly population. As such, incorporation of **MM BIO-3,** in addition to **MM BIO-1b,** would be required to mitigate the potential for loss of individual butterflies and their roosting habitat. With the implementation of **MM BIO-1b** and **MM BIO-3**, the impact would be less than significant.

<u>Options 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation</u>

Proposed use of heavy equipment and heavy-duty trucks for Option 2 may result in disturbance of the monarch butterfly roost or avoidance of the roosting tree stand habitat. Trees would not be removed as part of the Project; however, sheet pile wall installation and excavation of contaminated soils would require approximately 45 workdays (9 weeks) of digging and hauling with transport trucks and one year of ground water monitoring after soil remediation (including approximately 4 workdays over that year). If repeatedly disturbed by noise or equipment and human activity, monarch butterflies may expend valuable energy resources needed to complete their migration to spring and summer breeding grounds either by leaving and returning to the roost or avoiding the roost altogether, creating significant impacts to the local monarch butterfly population. As such, incorporation of **MM BIO-3,** in addition to **MM BIO-1b,** would be required to mitigate the potential for loss of individual butterflies and their roosting habitat. With the implementation of **MM BIO-1b** and **MM BIO-3**, the impact would be less than significant.

<u>Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation</u>

Proposed use of heavy equipment and heavy-duty trucks for Option 3 may result in disturbance of the monarch butterfly roost or avoidance of the roosting tree stand habitat. Trees would not be removed as part of the Project; however, sheet pile wall installation and excavation of contaminated soils would require approximately 57 workdays (12 weeks) of initial digging and then hauling of soil to an onsite soil treatment area. Soil treatment would require equipment operations 1 day per week for approximately 6 years; however, the soil treatment location would be located on the west side of the Project site and separated from the monarch butterfly roost and the Los Sauces Creek riparian corridor (approximately 350 feet). If during the initial soil remediation, the monarch butterflies are roosting and repeatedly disturbed by noise or equipment and human activity, monarch butterflies may expend valuable energy resources needed to complete their migration to spring and summer breeding grounds either by leaving and returning to the roost or avoiding the roost altogether, creating significant impacts to the local monarch butterfly population. As such, incorporation of **MM BIO-3,** in addition to **MM BIO-1b,** would be required to mitigate the potential for loss of individual butterflies and their roosting habitat. With the implementation of **MM BIO-1b** and **MM BIO-3**, the impact would be less than significant.

<u>Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation</u>

Proposed use of heavy equipment and heavy-duty trucks for Option 4 may result in disturbance of the monarch butterfly roost or avoidance of the roosting tree stand habitat. Trees would not be removed as part of the Project; however, sheet pile wall installation and the in-situ mixing and treatment of soils would require approximately 55 workdays (11 weeks) of equipment operation on the Project site and 10 additional workdays (2 weeks) for in-situ groundwater bioremediation activities. In comparison to Options 2, 3 and 5, soil would not be exported offsite, so there would be significantly fewer truck trips to and from the site. Even with fewer truck trips overall (10 cement truck trips), roosting butterflies may still be disturbed by noise or equipment and human activity and may expend valuable energy resources needed to complete their migration to spring and summer breeding grounds either by leaving and returning to the roost or avoiding the roost altogether, creating significant impacts to the local monarch butterfly population. As such, incorporation of **MM BIO-3,** in addition to **MM BIO-1b,** would be required to mitigate the potential for loss of individual butterflies and their roosting habitat. With the implementation of **MM BIO-1b** and **MM BIO-3**, the impact would be less than significant.

Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation

Option 5 would be carried out similarly to Option 2; however, due to the reduced excavation depth would require fewer truck trips overall (72 for export and import). Proposed use of heavy equipment and heavy-duty trucks for Option 5 for installation of the sheet pile wall, excavation of contaminated soils, and groundwater bioremediation may result in disturbance of the monarch butterfly roost or avoidance of the roosting tree stand habitat for approximately 25 workdays (5 weeks) and 10 additional workdays (2 weeks) for in-situ groundwater bioremediation activities. Roosting butterflies may still be disturbed by equipment operation and human activity and may expend valuable energy resources needed to complete their migration to spring and summer breeding grounds either by leaving and returning to the roost or avoiding the roost altogether, creating significant impacts to the local monarch butterfly population. As such, incorporation of **MM BIO-3,** in addition to **MM BIO-1b,** would be required to mitigate the potential for loss of individual butterflies and their roosting habitat. With the implementation of **MM BIO-1b** and **MM BIO-3**, the impact would be less than significant.

Mitigation Measures

MM BIO-1b: Environmental Awareness Training

MM BIO-3: Monarch Butterfly Avoidance. Prior to any Project-related activities at the Onshore Facility scheduled between October and February, a CSLC-qualified biologist shall survey for monarch butterfly aggregations 2 weeks prior to the start of construction. If monarch butterfly aggregations are observed, a protection buffer shall be delineated by a CSLC-qualified biologist in coordination with CDFW around the roosting area. The protection buffer will remain in place and the aggregation will continue to be monitored every 2 weeks until it is determined the aggregation has dispersed. If an over-wintering population becomes established, as indicated by the presence of monarch butterflies in December through February, then the qualified biologist shall document the extent of the roosting area and coordinate with CDFW to establish an appropriate buffer for potential over-wintering and breeding activities.

Impact BIO-4: Temporary Impacts to Western Snowy Plover at the SCC Parcel

Construction of proposed improvements at the beach may adversely affect western snowy plover **(Less than Significant with Mitigation).**

Impact Discussion

Potential impacts of Project activities at the SCC Parcel are discussed below. Suitable habitat for western snowy plover does not exist at Rincon Island, the OPC, or Onshore Facility.

SCC Parcel

<u>Option 1: Native Revegetation and Access Improvements</u>

SCC Parcel Option 1 includes removal of non-native vegetation, access improvements, placement of a stairway to facilitate access on the eastern end of the parcel, removal of coastal hazards, and revegetation with native plants. A majority of the Project activities and equipment required in support of Option 1 would be located on the bluff located on the back of the parcel adjacent to the Mussel Shoals community and would not have any effect on western snowy plover within the beach portion of the parcel; however, Project activities associated with installation of the access stairway and removal of coastal hazards would require heavy equipment activity on the beach and adjacent to intertidal areas, which would preclude western snowy plover from foraging in the Project site. If snowy plover are present on the beach, Project activities could result in injury or mortality of a USFWS-threatened species. As such, incorporation of **MM BIO-1b** and **MM BIO-4,** which would require a survey of the SCC Parcel work area and 100-foot buffer for western snowy plover no more than 24 hours prior to and/or just before the commencement of SCC Parcel Project activities, would be required to mitigate the potential for loss of individual birds. With the implementation of **MM BIO-1b** and **MM BIO-4**, the impact would be less than significant.

<u>Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm</u>

Option 2 would require heavy equipment activity on the beach and adjacent to intertidal areas, which would preclude western snowy plover from foraging in the Project site for approximately 20 days, although equipment would only require access to the beach for a portion of the work period. If snowy plover are present on the beach, Project activities could result in injury or mortality of a USFWS-threatened species. As such, incorporation of **MM BIO-1b** and **MM BIO-4** would be required to mitigate the potential for loss of individual birds. With the implementation of **MM BIO-1b** and **MM BIO-4**, the impact would be less than significant.

<u>Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage</u>

Option 3 would require heavy equipment activity on the beach and adjacent to intertidal areas, which would preclude western snowy plover from foraging in the Project site for approximately 25 days, although equipment would only require access to the beach for a portion of the work period. If snowy plover were present on the beach, Project activities could result in injury or mortality of a USFWS-threatened species. As such, incorporation of **MM BIO-1b** and **MM BIO-4** would be required to mitigate the potential for loss of individual birds. With the implementation of **MM BIO-1b** and **MM BIO-4**, the impact would be less than significant.

Mitigation Measures

MM BIO-1b: Environmental Awareness Training

MM BIO-4: Pre-activity Western Snowy Plover Survey. A CSLC-approved biologist shall survey the SCC Parcel work area and 100-foot buffer for western snowy plover no more than 24 hours prior to and/or just before the commencement of Project activities on the beach portion of the SCC Parcel. If this species is observed, work shall be postponed until the approved biologist, in coordination with the CDFW, has determined that western snowy plover have left the area.

Impact BIO-5: Temporary Impacts to Marine Mammals

Project activities could affect potential use of Rincon Island and a portion of the SCC Parcel as pinniped haul out areas **(Less than Significant).**

Impact Discussion

The OPC and Onshore Facility Project sites are located in upland areas that cannot be accessed by marine mammals. Potential impacts of Project activities at Rincon Island and the SCC Parcel are discussed below.

Rincon Island

Special status marine wildlife utilize the subtidal habitats around Rincon Island and the causeway but have limited use of Rincon Island. The proposed Project does not include any activities within ocean waters that may directly affect marine mammals such as dolphins and whales. Pinnipeds, such as California sea lion and Pacific harbor seal, periodically use the seaward perimeter tetrapods around the Island as a haul-out area but cannot access the boat wharf due to the height of the deck and the spacing of the railings around it. There are no Project components requiring marine-based equipment, and there would be no disturbance to haul-outs in the Project area. There have not been any reports that pinnipeds use Rincon Island as a rookery, and past oil and gas activities did not impact pinniped use of the perimeter of the Island. In the event pinnipeds do haul-out on the exterior of the Island, Project activities on the interior of the Island are not likely to affect their behavior or foraging opportunities; therefore, impacts to pinnipeds and other marine mammals would be less than significant.

<u>Public Facilities Retention Option</u>

Project activities associated with the public facilities retention option would be located within the interior of Rincon Island where pinnipeds would not be able to access. In the event pinnipeds do haul-out on the tetrapods around the Island, Project activities on the interior of the Island are not likely to affect their behavior or foraging opportunities; therefore, impacts to marine mammals would be less than significant.

SCC Parcel

Options 1 through 3

Project activities associated with SCC Parcel Options 1 through 3 would require equipment to access the beach for a portion of the work period (ranging from 10 to 25 days). It is unlikely that pinnipeds would utilize the beach as a haul out area due to its small size and daily use by the public. In addition, there are no recorded occurrences of pinnipeds hauling out or breeding on the beach area at the SCC Parcel; therefore, impacts to marine mammals during Options 1 through 3 Project activities at the SCC Parcel would be less than significant.

Mitigation Measures

None required.

4.3.5 Cumulative Impacts Analysis

Impact BIO-6: Cumulative Impacts to Biological Resources
Project-related disturbance and temporary habitat loss would incrementally contribute to cumulative impacts to biological resources **(Less than Significant with Mitigation).**

Impact Discussion

Cumulative projects identified in Section 3.0 that could occur at about the same time and affect similar biological resources as the proposed Project include the Decommissioning and Remediation of the Carpinteria Oil and Gas Processing Facilities Project and the Coast Ranch Remediation of Contaminated Soil and Groundwater Project. The Carpinteria Decommissioning and Coast Ranch Remediation projects would result in short-term habitat disturbance potentially affecting the same marine and terrestrial wildlife populations in the area of the proposed Project. The proposed Project (SCC Parcel and Onshore Facility options) would incrementally contribute to these cumulative impacts. However, with the implementation of **MM BIO-1a, MM BIO-1b, MM BIO-3,** and **MM BIO-4,** the Project's contribution to cumulative impacts would be less than significant.

Mitigation Measures

MM BIO-1a: Onshore Facility Nesting Season Avoidance or Pre-Construction Surveys

MM BIO-1b: Environmental Awareness Training

MM BIO-3: Monarch Butterfly Avoidance

MM BIO-4: Pre-Activity Western Snowy Plover Survey

4.3.6 Summary of Impacts and Proposed Mitigation Measures

Table 4.3-1. Summary of Biological Resources Impacts and Mitigation Measures

Impact	Mitigation Measures
Impact BIO-1: Temporary Disturbance to Roosting, Foraging, and Nesting Birds, Including California Brown Pelican, Osprey, and Double-Crested Cormorant	**MM BIO-1a**: Onshore Facility Nesting Season Avoidance or Pre-Construction Surveys **MM BIO-1b**: Environmental Awareness Training
Impact BIO-2: Temporary Effects to ESHA	None Required
Impact BIO-3: Temporary Impacts to Monarch Butterflies at the Onshore Facility	**MM BIO-1b**: Environmental Awareness Training **MM BIO-3**: Monarch Butterfly Avoidance
Impact BIO-4: Temporary Impacts to Western Snowy Plover at the SCC Parcel	**MM BIO-1b**: Environmental Awareness Training **MM BIO-4**: Pre-Activity Western Snowy Plover Survey
Impact BIO-5: Temporary Impacts to Marine Mammals	None Required
Impact BIO-6: Cumulative Impacts to Biological Resources	**MM BIO-1a**: Onshore Facility Nesting Season Avoidance or Pre-Construction Surveys **MM BIO-1b:** Environmental Awareness Training **MM BIO-3:** Monarch Butterfly Avoidance **MM BIO-4:** Pre-Activity Western Snowy Plover Survey

4.4 CULTURAL AND HISTORIC RESOURCES

This section identifies cultural resources within the Project sites and vicinity. The section then evaluates impacts to such resources that would potentially result from implementation of the Project.

4.4.1 Environmental Setting

4.4.1.1 Onshore

Precontact History of Ventura County. Ventura County is part of a larger regional cultural area that includes most of Santa Barbara and San Luis Obispo counties. Warren (1968), and King (1990) have developed chronological sequences that apply to the precontact history of Ventura County. Specifically, archaeologists working in the Channel Islands mainland region of Ventura County have divided the local precontact record into five major chronological time periods: Pre-Millingstone Period (also known as Paleo-Indian or Paleocoastal), Millingstone Period, Early Period, Middle Period, and Late Period. A discussion of each time period is provided below.

The Pre-Millingstone Period (circa [c.] 25,000 through c. 8,500 Before Present [B.P.]) represents the earliest human occupation in North America. At the end of this period, the sea level began to rise, which submerged and eroded many Paleo-Indian sites located on coastal terraces. Archaeological evidence has emerged that confirms a human presence on the Channel Islands as early as 13,000 B.P. (Johnson et al. 2002), while the earliest evidence of a human presence on the mainland has been dated to 10,000 to 11,000 B.P. During this early time period, Paleo-Indian groups focused on hunting Pleistocene epoch megafauna species such as the mammoth, giant bison, and possibly camel, among others, although vegetal resources and smaller animals such as rodents and fowl likely remained important dietary constituents.

Appropriately named, the Millingstone Period (c. 8,500 through c. 6,500 B.P.) is defined by the predominance of hand stones and milling slabs in the archaeological record, suggesting a reliance on hard seeds and other plant foods. Faunal assemblages from various sites indicate early Chumash populations also consumed terrestrial and marine mammals, fish, and shellfish, indicating increased mobility between coastal and inland camps (Jones et al. 1994).

Most archaeological sites dating to the Early Period (c. 6,500 through c. 3,200 B.P.) are recorded at or near the coast or on the Channel Islands. This period is characterized by an abundance of groundstone tools and a variety of flaked stone tools. Bone gorges occur and shell beads appear in burials (Glassow et al. 2007). Residential bases are presumed to have been comprised of extended families during this period. By the end of the Early Period, people speaking a "Proto-Chumash" language had become established in the region, but their relationship with earlier peoples is not yet clear (Santa Barbara Museum of Natural History 2002). Anthropologists refer to the peoples who inhabited the Channel Islands and mainland areas during the Early Period as Chumash.

During the Middle Period (c. 3,200 through c. 900 B.P.), the technology and economy of Chumash society became markedly more complex. The artifact assemblage contains shellfish hooks and other fishing gear and contracting-stemmed projectile points. Subsistence practices emphasized fish and acorns, with a greater use of seasonal resources and the first attempts at food storage (King 1990). Continuation of trade relationships is evident in the increased number and diversity of obsidian items and beads associated with this period. Sites were occupied on an extended basis, but not as permanent settlements. These residential bases functioned in conjunction with short term, smaller occupations at specialized resource processing areas (Jones and Ferneau 2002).

During the Late Period (c. 800 B.P. through 1769 Anno Domini [A.D.]), two-thirds of the people in the Ventura region lived near the coast, although settlements were also located in oak woodland communities and along rivers. A ranked society with hereditary elite was established. Cultural ornamentation and elaboration during this time implies a change in society, elevating attributes of achieved status and wealth (Glassow et al. 2007). The use of shell bead money, often produced on the Northern Channel Islands, emphasizes the importance of trade among Chumash communities, which acted as a buffer against shortages of wild food resources. Faunal remains reveal the exploitation of a diverse array of marine and terrestrial habitats and species.

Regional and Local History. The historic record of Ventura County began with the arrival of four Spanish expeditions between the years of 1542 (Juan Rodriguez Cabrillo) and 1602 (Sebastian Vizcaíño). Both Cabrillo and Vizcaíño described their interactions with the Chumash as generally positive, friendly encounters. After these initial expeditions, which were essentially confined to the coast, a period of 167 years passed without any additional European arrivals.

The first Spanish land expedition of Gaspar de Portolá passed through Ventura County and camped near present day Saticoy on August 13, 1769 (Galvin 2011). The expedition continued down the Santa Clara River Valley and camped at the outlet of the Ventura River on August 14, 1769. Fray Juan Crespi, a Franciscan missionary, noted a large and sophisticated Chumash village (likely Shisholop) near this campsite. In February 1774, Juan Bautista de Anza traveled through Ventura County as leader of the San Francisco colonists. The de Anza expedition camped near La Asumpta and traveled south of the site as it continued north along the Pacific Coast (Galvin 2011).

Over the next 3 decades, the Spanish established 21 Franciscan missions and various military presidios and pueblos along El Camino Real between San Diego and Sonoma. The earliest plans for a mission at San Buenaventura date to 1768 when the area was selected for an "intermediate" mission between the existing Mission San Diego and Mission San Carlos. Political infighting among the Spanish settlers delayed the founding of Mission San Buenaventura until Easter Sunday, March 31, 1782 (Galvin 2011).

In 1821, Mexico declared independence from Spain; a year later, California became a Mexican Territory. After the secularization of the missions in 1834, lands were gradually transferred to private ownership via a system of land grants. The existing Project sites are situated approximately 1.5 miles southeast of the former Rancho El Rincon, a 4,460-acre land grant awarded by Governor Jose Figueroa to Teodoro Arrellanes in 1835 (Hoffman 1862). The grant extended along the Pacific coast from Carpinteria Creek in the north to Bates Beach in the south, and as far inland as present-day Gobernador Canyon Road, in unincorporated Santa Barbara County, near the foothills of the Santa Ynez Mountains.

Following the Bear Flag Revolt in 1846, John C. Frémont and the California Battalion marched into Mission San Buenaventura, finding that all the inhabitants had fled except the newly converted Chumash. The Treaty of Hidalgo formally transferred California to the United States in 1848, and statehood was achieved in 1850. At the time, the area that would become Ventura County was originally the southern portion of Santa Barbara County (Murphy 1979).

In 1864, a serious drought devastated local livestock, creating financial ruin for many Californios (Galvin 2011). Several ranchos were divided and sold to east coast capitalists hoping to encounter petroleum deposits (Murphy 1979). By the 1870s, Americans owned most of the former ranchos, and the economy shifted from cattle and sheep to agriculture and oil exploration (VCBS 2011).

Ventura County was officially split from Santa Barbara County on January 1, 1873, and a dozen communities were established within the next 25 years. The Southern Pacific Railroad came through San Buenaventura in 1887 and shortened the name of the city to "Ventura" for convenience in printing their timetables (Murphy 1979). The railroad connected Saugus, Fillmore, and Santa Paula allowing agricultural products, especially citrus, to ship from Ventura and Port Hueneme (VCBS 2011).

Oil exploration in Ventura County started during the 1880s, yet remained unsuccessful until 1916, when the large South Mountain Oil Field was discovered near Santa Paula. Drilling in the Ventura Avenue Oil Field and the Rincon Oil Field soon followed in 1919 and 1927, respectively. The 1920s oil boom increased development in the cities of Ventura, Santa Paula, and Fillmore. The 1929 stock market crash and subsequent Great Depression slowed this growth; most of the County's infrastructure, such as roads, post office, fire stations, and schools, were built by New Deal relief programs. At the beginning of World War II, the United States Navy completed deep-water port facilities at Port Hueneme (VCBS 2011).

During the 1960s and 1970s, many working-class people migrated from east and central Los Angeles to southern and eastern Ventura County. As a result, there was significant population growth in Ventura County along the Highway 101 corridor. Further expansion of Highway 101 has facilitated commuting to Los Angeles and prompted further development to the west (Murphy 1979).

Records Search Results. On June 29, 2021, Padre requested a search of the California Historical Resources Information System at the South Central Coastal Information Center (SCCIC). The records search included a review of all recorded historic-era and precontact archaeological sites within a 0.25-mile radius of the Project sites as well as a review of known cultural resource surveys and technical reports. The records search results were received on July 30, 2021.

The records search did not identify any previously recorded cultural resources within the Project sites; however, three previously recorded cultural resources are located outside the decommissioning sites, but within the 0.25-mile search radius. Additionally, Rincon Island and its associated causeway structures are more than 50 years old and qualify as a historic-aged cultural resource. These resources are listed in Table 4.4-1 and described below.

Table 4.4-1. Cultural Resources Located in 0.25-mile Search Radius from the Project Sites

Primary No.	Trinomial No.	Description	Distance to Existing Facilities
P-56-000141	CA-VEN-141	Possible shell scatter	387 feet east of Onshore Pipeline Connections (OPC) vault box
P-56-000241	CA-VEN-241	Precontact habitation site, possibly Mishim or shishwashkuy	130 feet northeast of Onshore Facility
P-56-000644	CA-VEN-644	Precontact midden site, possibly kashashlalhiwish	185 feet northwest of OPC vault box
-	-	Rincon Island and the causeway	Included for historical significance evaluation

Source: SCCIC, 2021; Note: No primary or trinomial numbers associated with Rincon Island

CA-VEN-141 was originally recorded in 1966 by J. Boyer, who described the site as a 50-foot by 20-foot flake scatter with Olivella shell beads and no midden soil, observed north of the UPRR right-of-way approximately 387 feet east of the OPC. A survey conducted by Compass Rose in 2003 did not observe any flakes; however, archaeologists did observe a sparse shell scatter on the north side of the railroad tracks below a cut bank that contained old beach terraces with shell fragments (some fossilized). Based on the presence of shellfish remains, much of which may be non-cultural in origin, the site dimensions are estimated as approximately 100 meters east-west by 40 meters north-south. CA-VEN-141 has not been formally evaluated; however, if intact buried deposits are found to exist, it may qualify for listing on the California Register of Historical Resources (CRHR) and a "historical resource" as defined by CEQA (Romani and Larson 2003).

CA-VEN-241 was originally recorded in 1970 by Chester King and Clay Singer, who described the site as a 600-foot-long area bisected by the UPRR right-of-way (approximately 130 feet northwest of the Onshore Facility) that contained stone flakes, chert and quartzite cores, and marine shell fragments (Wlodarski 1988). Subsequent archaeological testing confirmed the presence of intact precontact deposits up to a depth of 1.6 meters within CA-VEN-241 and concluded that the site may represent the disturbed remnants of the Chumash village Mishim (Wlodarski 1988). Additionally, King tentatively identified CA-VEN-241 as the ethnographic Chumash village of shishwashkuy (Peak and Associates 1993). CA-VEN-241 has not been formally evaluated; however, several previous studies (Wlodarski 1988; Peak and Associates 1992; Romani and Larson 2003) have all indicated the potential for intact deposits and possible association with Chumash village sites. Thus, CA-VEN-241 should be assumed eligible for listing on the CRHR and a "historical resource" as defined by CEQA.

CA-VEN-644 was originally recorded by C. S. Desgrandchamp and M. Rondeau in 1979, who described the site as a precontact shell midden exposure along both sides of the UPRR right-of-way (approximately 185 feet northwest of the OPC), located approximately 100 meters southeast of La Conchita (Romani and Larson 2003). Subsequent testing completed by Peak and Associates in 1992 revealed intact deposits at the northwestern and southeastern extents of CA-VEN-644 (Peak and Associates 1993). Additionally, King tentatively identified CA-VEN-644 as the ethnographic Chumash village of kashashlalhiwish (personal communication, 1992, in Peak and Associates 1993). CA-VEN-644 has not been formally evaluated; however, previous studies (Peak and Associates 1992; Romani and Larson 2003) have indicated the potential for intact deposits and possible association with Chumash village sites. Thus, CA-VEN-644 should be assumed eligible for listing on the CRHR and a "historical resource" as defined by CEQA.

Completed in 1958, Rincon Island is an artificial island of sand, rock, and pre-cast concrete armor connected to the mainland by a causeway. Further description and the evaluation of this resource is provided in Section 4.4.1.2.

Finally, the records search identified 11 reports for previously conducted cultural studies within the Project sites and 13 reports for previously conducted cultural studies within the 0.25-mile search radius.

Cultural Resource Pedestrian Survey. An archaeologist conducted an intensive pedestrian survey of the onshore Project sites on February 7, 2023. The survey was conducted by walking parallel transects spaced at 33 feet. The onshore Project sites included the SCC Parcel, the OPC Vault, and the Onshore Facility, totaling 6.75 acres. All exposed soils, including the edges of paved areas, rodent spoils, eroded bluffs and creek banks, and other areas of recent disturbance, were examined for evidence of precontact or historic-period cultural resources, including any evidence of buried cultural deposits. Ground visibility varied from 0 to 60 percent with vegetation, gravel, and asphalt accounting for areas of lesser visibility (Padre 2023c). No cultural resources were observed during the survey.

4.4.1.2 Offshore

Rincon Island and Causeway. Rincon Island and its associated causeway structures are more than 50 years old and qualify as a cultural resource. Before understanding Project impacts on the resource, it is necessary to understand its historical context and significance. The following is a brief history of Rincon Island followed by the application of the CRHR significance criteria. When the phrase "Rincon Island" appears in this section, it applies to both the Island and the associated causeway, as they were constructed together.

The idea for Rincon Island came about in 1954 when the State of California called for competitive bids for the exploration and development of and the production of oil and gas from the area offshore Mussel Shoals. The development of the Island and causeway required many first-time techniques to solve the engineering problems of constructing a facility of this type. In short, the evolution of the final shape and size of Rincon Island was the result of joint studies by the Richfield Oil Corporation concerning their requirements from an oil production viewpoint and the engineer's design search for the most economical way to meet such requirements (ASCE 1959).

Completed in 1958, Rincon Island is an artificial island of sand, rock, and pre-cast concrete armor connected to the mainland by a causeway. At the time of its construction, the oil production island with an open causeway that connects it to the shoreline was one of the most unique marine installations in the world. The Richfield Oil Corporation (later Atlantic Richfield Company) financed the design and construction of the Island utilizing the engineering firm of John A. Blume & Associates in direct charge of the overall project. The design included many alternate economic studies, model tests in a wave laboratory, and storm damage and wave runup studies with alternate armor types, materials, densities, and slopes. The general contractor for the Island was Guy F. Atkinson Company, founded in 1926, and the general contractor for the causeway was Healy Tibbets Construction Company, founded in 1886 (ASCE 1959). Both firms are still in business today.

Geological studies dictated the general location of Rincon Island and the size of the Island was determined by operational area requirements plus allowance for armor layers and side slopes. The unusual shape of the Island was developed to achieve optimal protection from ocean storm swells. The Island was constructed in stages and contains many types of rock with the most exposed face protected with approximately 1,100 concrete tetrapods. Palm trees installed by the Richfield Oil Corporation enhance the natural appearance of the Island. A small wharf of prestressed concrete piles, concrete cap, and timber deck was provided on the lee side of the Island within a semi-protected harbor created by two rock breakwater stubs. The single lane causeway of steel pipe piles and timber decking on steel stringers extends from the wharf to the abutment, while the alternating single and double battered pile bents of the causeway provided a clean appearance and constantly changing line patterns as travelers passed along the shoreline (ASCE 1959). A detailed description of Rincon Island and its associated causeway structure can be found in Sections 2.2.1 and 2.2.2.

Based upon this historical context, one theme emerges from analyzing the development of Rincon Island: the evolution of the petroleum industry in California from the early twentieth century to the present. Rincon Island meets the eligibility requirements under Criterion 1 of the CRHR because of its critically important role in the development of the oil industry in California, one of the most important events in the State’s economic history. The reason for this recommendation is that Rincon Island was critical to the development of the oil field offshore Mussel Shoals, permitting the efficient transportation and processing of oil and gas from offshore deposits.

Additionally, Rincon Island meets the eligibility requirements under Criterion 3 of the CRHR because of its distinctive characteristics and method of construction. Rincon Island was the first artificial island designed and constructed for the purposes of extracting and processing oil and gas from offshore deposits within the State of California. The development and unique design of the Island required many first-time techniques to solve the engineering problems in constructing a facility of this type. Accordingly, Rincon Island could be considered a significant historical resource eligible for the CRHR under Criteria 1 and 3.

Since Rincon Island is potentially significant under Criteria 1 and 3, the resource must then be assessed for integrity of Location, Setting, Design, Workmanship, Materials, Feeling, and Association. Rincon Island has maintained the integrity of Location and Setting, as these aspects have not changed since its construction in 1958. The physical features of Rincon Island that define its character and evoke its significant historical associations are those that are linked clearly with the Island’s unique engineering and design. These defining characteristics are found principally in the final shape and size of Rincon Island and the materials used in its construction, which are the result of the unique engineering processes used in its design. Thus, the integrity of Design, Materials, and Workmanship have not been altered, nor were they impacted by the Phase 1 plugging and abandonment activities. Despite the removal of the oil production and processing facilities during Phase 1, Rincon Island retains integrity of Feeling and Association because the engineering design remains very recognizable.

Shipwrecks. More than 500 sunken vessels have been reported within the coastal waters of Southern California. Precise locations are usually unknown, with only vague narratives provided for the area in which the ship was last known or thought to have sunk. The most common reasons for shipwrecks were either running aground on natural hazards such as prominent rocks or colliding in harbors during stormy weather. As such, the most probable areas for shipwrecks along the California coast occur where concentrated shipping traffic coincides with navigational hazards such as reefs, headlands, and prevailing severe weather or fog. Some sensitive areas include offshore islands, seaports, and obstructions. Less sensitive areas include the open sea and coastline away from established shipping routes.

Approximately 33 shipwrecks have been logged in CSLC's Shipwrecks Database for the area offshore of Ventura County. Except as verified by actual surveys, CSLC data on shipwrecks was taken from books, old newspapers, and other contemporary accounts that do not contain precise locations (CSLC 2021). The CSLC Shipwrecks Database reflects information from many sources and generally does not reflect actual fieldwork. Additionally, not all shipwrecks are listed in the CSLC Shipwrecks Database, and their listed locations may be inaccurate, as ships were often salvaged or re-floated. It is also possible that previously unidentified vessels or parts of vessels may be offshore near Rincon Island. A review of the NOAA Automated Wreck and Obstruction Information System (AWOIS) indicates the closest electronic navigational chart wreck is a visible wreck located approximately 6 miles due southeast of Rincon Island just north of the Ventura River outfall. The AWOIS does not provide any additional information about this wreck (NOAA 2021). Additionally, a detailed bathymetric survey around Rincon Island completed as part of the Feasibility Study did not identify any submerged objects that could be a potential shipwreck.

4.4.2 Regulatory Setting

Federal and state laws and regulations pertaining to cultural resources and relevant to the Project including CCA Chapter 3, Section 30244 are discussed in

Appendix B. Local policies applicable to the Project with respect to cultural resources are listed below.

4.4.2.1 Local

<u>Ventura County 2040 General Plan (2020)</u>

<u>Conservation and Open Space Element</u>

Policies included within the Ventura County 2040 General Plan Conservation and Open Space Element (Ventura County 2020) include the following related to protection of cultural resources:

- **Policy COS-4.3: Historical Landmarks Preservation**. The County shall require all structures and sites that are designated, or eligible for designation, as County Historical Landmarks to be preserved as a condition of discretionary development, in accordance with the Secretary of the Interior Standards, unless a structure is unsafe or deteriorated beyond repair. The property owner shall place an appropriate marker on the site to describe the historical significance of the structure, site or event.
- **Policy COS-4.4: Discretionary Development and Tribal, Cultural, Historical, Paleontological, and Archaeological Resource Preservation**. The County shall require that all discretionary development projects be assessed for potential tribal, cultural, historical, paleontological, and archaeological resources by a qualified professional and shall be designed to protect existing resources. Whenever possible, significant impacts shall be reduced to a less-than-significant level through the application of mitigation or extraction of maximum recoverable data. Priority shall be given to measures that avoid resources.
- **Policy COS-4.5: Adaptive Reuse of Historic Structures**. The County shall require, in all feasible circumstances, discretionary development to adaptively reuse architecturally or historically significant buildings if the original use of the structure is no longer feasible and the new use is allowed by the underlying land use designation and zoning district.
- **Policy COS-4.7: Cultural Heritage Review Board**. Prior to environmental review of discretionary development projects, the County shall initiate a records search request with the South Central Coastal Information Center and coordinate with the Cultural Heritage Board to identify sites of potential archaeological, historical, tribal cultural, and paleontological significance, to ensure that all known resources have been properly

identified. Should a site of archaeological, tribal, architectural, or historical significance be identified, the County shall provide an opportunity for the Cultural Heritage Board to include recommendations specific to the discretionary project and identified resource(s). If it is determined during the review that a site has potential archaeological, tribal, architectural, or historical significance, information shall be provided to the County Cultural Heritage Board for evaluation. Recommendations identified by the Cultural Heritage Board shall be provided to the appropriate decision-making body.

- **Policy COS-4.8: State Historic Building Code.** The Building and Safety Division shall utilize the State Historic Building Code for preserving historic sites in the County.

4.4.3 Significance Criteria

The State CEQA Guidelines section 15064.5 defines a significant cultural resource, either precontact or historic, as a "historical resource." Public Resources Code section 5020.1, subdivision (j) defines "historical resource":

> "Historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California."

A resource included in a local register of historical resources, as defined in Public Resources Code section 5020.1, subdivision (k), or identified as significant in an historical resource survey meeting the requirements of section 5024.1, subdivision (g), shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets any of the criteria for listing on the CRHR (Pub. Resources Code, § 5024.1 and Cal. Code Regs., tit. 14, § 4852):

(a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(b) Is associated with the lives of persons important in our past;

(c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(d) Has yielded, or may be likely to yield, information important in prehistory or history.

The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to Pub. Resources Code, § 5020.1, subd. (k)), or identified in an historical resources survey (meeting the criteria in § 5024.1, subd. (g)), does not preclude a lead agency from determining that the resource may be a historical resource as defined in sections 5020.1, subdivision (j), or 5024.1.

The State CEQA Guidelines section 15064.5, subdivision (b) provides significance threshold criteria for determining a substantial adverse change to the significance of a cultural resource:

1. Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
2. The significance of an historical resource is materially impaired when a project:
   a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR
   b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1, subdivision (k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1, subdivision (g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant
   c) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA

4.4.4 Impact Analysis and Mitigation

Impacts to cultural resources can be direct or indirect. Direct impacts result from ground disturbances directly and indirectly caused by construction, decommissioning, operation, or maintenance. Indirect impacts result from increased erosion due to site clearance and preparation. The proposed Project does not include any operational or maintenance activities other than routine inspections of the causeway, watering of new vegetation at the SCC Parcel, and soil bioremediation land treatment activities at the Onshore Facility (should remediation Option 3 be chosen); none of these activities would include ground disturbance of previously undisturbed areas. A discussion of potential impacts of decommissioning activities at each Project site and recommended MMs are provided below.

Impact CR-1: Potential Impacts to the Significance of a Historical Resource During Project Implementation

Project activities at Rincon Island would have the potential to affect a historical resource since the Island is more than 50 years old and represents development of unique oil and gas exploration methods along this area of the coast **(Less than Significant).**

Impact Discussion

Historical resources have not been identified within the Project footprint of the SCC Parcel, the OPC, or Onshore Facility. Potential impacts of Project activities on Rincon Island, a potential historical resource, are discussed below.

Rincon Island

Based upon its historical context representing the evolution of the petroleum industry in California from the early twentieth century to present, Rincon Island is considered a significant historical resource eligible for the CRHR under Criterion 1. Additionally, Rincon Island meets the eligibility requirements under Criterion 3 because of its distinctive characteristics and method of construction.

Since Rincon Island is potentially significant under Criteria 1 and 3, the resource must be assessed for integrity of location, setting, design, workmanship, materials, feeling, and association. Rincon Island has maintained the integrity of location and setting, as these aspects have not changed since its construction in 1958. Further, the physical features of Rincon Island that define its character and evoke its significant historical associations are those that are linked clearly with the Island's unique engineering and design. These defining characteristics are found principally in the final shape and size of Rincon Island and the materials used in its construction, which are the result of the unique engineering processes used in its design. Thus, the integrity of design, materials, and workmanship have not been altered, nor have they been impacted by the Phase 1 plugging and abandonment activities. Despite the removal of the oil production and processing facilities during Phase 1, Rincon Island retains integrity of feeling and association because the engineering design remains very recognizable.

The proposed Project includes retention of Rincon Island and the causeway, but would include removal of the remaining surface structures, removal of the Island well bay concrete deck and pavement, and removal of contaminated soil which would then be backfilled with clean soil. The implementation of these activities would not result in a change to the current shape or design of Rincon Island. Therefore, impacts to the significance of a historical resource would be less than significant and no mitigation is required.

Public Facilities Retention Option

The public facilities retention option also would not result in a change to the current shape or design of Rincon Island. Project activities and impacts would be similar to the discussion above except the existing septic system infrastructure could remain in place following removal of the existing buildings. Therefore, impacts to the significance of a historical resource would be less than significant and no mitigation is required.

Mitigation Measures

None required.

Impact CR-2: Substantial Adverse Change to Previously Undiscovered Cultural Resources During Project Implementation Although there are three known cultural resources near the onshore Project sites, no cultural resources are known to be present within the Project footprint, and Project activities would generally occur in previously disturbed areas and in areas where presence of cultural resources is not expected **(Less than Significant with Mitigation).**

Impact Discussion

Rincon Island

No cultural resources have been identified within the Rincon Island Project site or within a 0.25-mile radius. The proposed Project activities include the removal of historic-aged structures and the removal of artificial fill soils. The potential to encounter subsurface cultural resources during demolition and soil removal is considered very low. Therefore, impacts to previously undiscovered cultural resources are not likely and the impact would be less than significant.

<u>Public Facilities Retention Option</u>

Project activities and impacts would be similar to the discussion above except the existing septic system infrastructure could remain in place following removal of the existing buildings. Therefore, impacts to previously undiscovered cultural resources are not likely and the impact would be less than significant.

SCC Parcel

<u>Option 1: Native Revegetation and Access Improvements</u>

No cultural resources have been identified within the SCC Parcel. Due to the movement of sand on a seasonal basis (i.e., sand is generally scoured off the beach during the winter months as a result of high surf activity but is generally redeposited during the summer months of gentle surf), intact precontact cultural material is generally not found along the oceanfront. Additionally, due to the open exposure, the oceanfront is generally not considered suitable for occupation or use by precontact Indigenous peoples. The potential to encounter subsurface cultural resources during non-native vegetation removal and replacement with native species by hand and adding crushed rock to existing trails is considered very low. However, installation of the stairway and removal of coastal hazards along the shoreline could require minor excavation, which could affect undiscovered cultural resources. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2**, **MM CUL-3/TCR-3**, **MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5**, the impact would be less than significant.

<u>Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm</u>

Option 2 would include the components of Option 1 but would also require installation of a cobble back berm within the parcel. With implementation of

MM CUL-1/TCR-1, **MM CUL-2/TCR-2**, **MM CUL-3/TCR-3**, **MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5**, the impact would be less than significant.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

Option 3 would include the components of Option 1 but would also require installation of riprap along the parcel frontage. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2**, **MM CUL-3/TCR-3**, **MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5**, the impact would be less than significant.

Onshore Pipeline Connections

Two previously recorded cultural resources, CA-VEN-141 and CA-VEN-644, are located 387 feet east and 185 feet northwest of the OPC vault, respectively. In order to remove the pipelines from the vault, minimal excavation within previously disturbed soils would be required. There is a low potential that Project-related ground disturbance would exceed previous depths during decommissioning and affect undiscovered cultural resources, such as at the end of the pipeline casing. Further, with the implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2, MM CUL-3/TCR-3, MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5,** the impact would be less than significant.

Onshore Facility

One previously recorded cultural resource, CA-VEN-241, is located 130 feet northeast of the Onshore Facility. During site assessment coring, as well as observations during the pedestrian survey, up to 15 feet of artificial fill and up to a foot of deposited sand and silt from heavy runoff due to recent rainfall was noted within the Onshore Facility. The Project options that propose excavation are not anticipated to exceed 10 feet bgs; therefore, the potential to encounter subsurface cultural resources during soil removal is considered very low in this artificial fill and sand material. Additionally, installation of the 750-foot steel sheet pile wall (potentially part of all Onshore Facility options) to a depth of 20 feet bgs between the Onshore Facility and the upgradient Coast Ranch parcel would be accomplished using an excavator to hold the sheet pile wall in place and a vibratory hammer to vibrate the sheet pile wall below ground, which does not require excavation.

Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation

Option 1 would not include any active remediation or excavation of contaminated soil, but would utilize the existing recycled asphalt aggregate base material currently placed throughout the Onshore Facility Project site, as well as new asphalt as a surface cap across the areas of contaminated soil onsite. If authorized by the responsible permitting agencies, implementation of this option would allow the existing contaminated soil to remain in-place, as it would be capped with recycled asphalt aggregate base material. Since implementation of this option would avoid excavation, impacts to previously undiscovered cultural resources are not likely. A less than significant impact would result.

<u>Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation</u>

Option 2 would include excavation of the existing contaminated soil to an estimated depth of 10 feet bgs. During site assessment coring, as well as observations during the pedestrian survey up to 15 feet of artificial fill and up to a foot of deposited sand and silt from heavy runoff due to recent rainfall was noted within the Onshore Facility. Since Option 2 would include excavation up to 10 feet, there is a low potential that Project-related ground disturbance would exceed previous depths during remediation and affect undiscovered cultural resources. Further, with implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2, MM CUL-3/TCR-3, MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5,** the impact would be less than significant.

<u>Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation</u>

Option 3 would include excavation of the existing contaminated soil to an estimated depth of 10 feet bgs and use of onsite soil bioremediation land treatment to remediate existing contamination. During site assessment coring, as well as observations during the pedestrian survey, up to 15 feet of artificial fill and up to a foot of deposited sand and silt from heavy runoff due to recent rainfall were noted within the Onshore Facility. Since Option 3 would include excavation up to 10 feet, there is a low potential that Project-related ground disturbance would exceed previous depths during remediation and affect undiscovered cultural resources. Land treatment would occur in secondary containment above ground. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2, MM CUL-3/TCR-3, MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5,** the impact would be less than significant.

Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation

Option 4 would include the use of either an excavator or a large diameter flight auger to facilitate in-situ mixing of petroleum hydrocarbon-containing soil with a common reagent such as cement to solidify and stabilize in-place the petroleum hydrocarbon-containing soil. The use of in-situ groundwater bioremediation (injection of oxygen releasing compounds using a direct-push drilling rig) would also be utilized at an elevation that is geologically downgradient from the contamination source zones. Implementation of this option would allow the existing contaminated soil to remain in place, as it would be mixed with cement in order to encapsulate the material onsite.

During site assessment coring, as well as observations during the pedestrian survey, up to 15 feet of artificial fill and up to a foot of deposited sand and silt from heavy runoff due to recent rainfall was noted within the Onshore Facility. Since Option 4 would affect surface soils, there is a low potential that Project-related ground disturbance would exceed previous depths during remediation and affect undiscovered cultural resources. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2, MM CUL-3/TCR-3, MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5,** the impact would be less than significant.

Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation

Option 5 would include localized excavation of the Onshore Facility at specified locations at depths of approximately 3 feet or less, and capping the areas containing petroleum hydrocarbon-containing soil at depths greater than approximately 3 feet with clean backfill material. In-situ groundwater bioremediation would also occur by injecting oxygen releasing compounds using a direct-push drilling rig. During site assessment coring, as well as observations during the pedestrian survey up to 15 feet of artificial fill and up to a foot of deposited sand and silt was noted within the Onshore Facility. There is a low potential that Project-related ground disturbance would exceed previous depths during remediation and affect undiscovered cultural resources. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2, MM CUL-3/TCR-3, MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5,** the impact would be less than significant.

Mitigation Measures

MM CUL-1/TCR-1: Cultural and Tribal Cultural Resources Management and Treatment Plan. Prior to implementation of the Project, the Project contractor shall develop a comprehensive Cultural Resources Management and Treatment Plan (CRMTP) for review and concurrence by CSLC staff and the consulting Tribe(s). The purpose of the CRMTP is to describe the procedures and requirements for protection and treatment of both non-Native American archaeological or historic resources and tribal cultural resources in the event that they are discovered during Project implementation. The CRMTP shall be provided to representatives from the consulting Tribe(s) for review and concurrence at least 45 days before the start of construction. CSLC shall fully carry out, implement, and comply with the CRMTP throughout decommissioning activities within the SCC Parcel, OPC, and Onshore Facility areas.

The CRMTP shall include at a minimum:

- A description of the roles and responsibilities of cultural resources personnel, including CSLC, Project archaeologist, and Tribal Representatives, and the reporting relationships with Project construction management, including lines of communication and notification procedures
- Description of what resources may be inadvertently encountered
- Description of procedures for halting work on the site, establishment of buffer zones around potential finds, and notification procedures
- Description of the respective authorities of CSLC, the Project archaeologist, and Tribal Representative(s) to evaluate and determine significance of discoveries, and authority to determine appropriate treatment, depending on whether the discovery is Native American in nature
- In the event of a discovery, a description of when monitoring is needed, the frequency of monitoring, and how the monitoring shall occur, consistent with the recommendations submitted by the consulting Tribe during consultation on the Project (pursuant to Public Resources Code Sections 21080.3.2 and 21082.3) and reflected in the criteria listed in these measures
- Provisions for the treatment of tribal cultural resources and the recommended treatment protocols submitted by the consulting Tribe during consultation on the Project (pursuant to Public Resources Code Sections 21080.3.2 and 21082.3)
- Provisions for the culturally appropriate handling of tribal cultural resources, if avoidance is infeasible, including procedures for temporary custody, processing materials for reburial, minimizing

handling of cultural materials, and development of a reburial plan and agreement for returning materials to a suitable location in the Project site where they would not be subject to future disturbance

- Procedures for the appropriate treatment of human remains, pursuant to California Health and Safety Code section 7050.5 and California Public Resources Code section 5097.98, which include procedures for determination of a most likely descendant by the Native American Heritage Commission (NAHC)
- A description of reporting procedures including the requirement that reports resulting from the Project be filed with the South Central Coastal Information Center and copies provided to CSLC and the consulting Tribe(s) within 1 year of Project completion

MM CUL-2/TCR-2: Cultural and Tribal Cultural Resources Monitoring. CSLC shall provide monitoring during implementation of the Project at the SCC Parcel, OPC, and Onshore Facility as specified in the CRMTP required by **MM CUL- 1/TCR-1**. CSLC shall also retain a Tribal Representative, if one is available, who shall monitor all Project construction areas. The Tribal Representative(s) and archaeologist shall each have the authority to temporarily halt or redirect construction in the event that potentially significant cultural resources or tribal cultural resources are discovered during Project related activities. The work stoppage or redirection shall occur to an extent sufficient to ensure that the resource is protected from further impacts. Detailed monitoring procedures, including criteria for increasing or decreasing monitoring and the location and scope of monitoring activities agreed to by both the CSLC designated onsite archaeologist and Tribal Representative, shall be outlined in the CRMTP identified in **MM CUL-1/TCR-1**. CSLC shall provide a minimum 2-week notice to the onsite archaeologist and designated Tribal Representative from the consulting Tribes prior to all activities requiring monitoring and shall provide safe and reasonable access to the Project site. The onsite archaeologist and designated Tribal Representative(s) shall work in collaboration with the Project managers, and other consultants hired/employed by CSLC or their contractor.

MM CUL-3/TCR-3: Cultural and Tribal Cultural Resources Awareness Training. Prior to Project implementation, a construction-worker cultural and tribal cultural resources awareness training program for all personnel involved in Project implementation shall be developed in coordination with the Project archaeologist and consulting Native American Tribes. The training shall be conducted by the Project archaeologist and Tribal Representative(s) and must be provided to all Project employees, contractors, subcontractors, and other workers prior to their involvement in any ground-disturbing activities, with subsequent training sessions to accommodate new personnel becoming involved in the Project. Evidence of compliance with this mitigation measure shall be documented within pre-Project compliance documentation materials and submitted to CSLC prior to Project mobilization.

The purpose of the training shall be to educate onsite construction personnel as to the sensitivity of archaeological and tribal cultural resources within the Project sites, including understanding the difference between non-Native American archaeological resources (cultural resources) and resources that are Native American in nature (tribal cultural resources). The training shall also cover the requirements of the CRMTP including the possibility of exposing cultural or tribal cultural resources, guidance on recognizing such resources, and direction on procedures if a potential resource is encountered. CSLC and the Project contractor shall instruct all Project personnel that touching, collecting, or removing cultural materials from the property is strictly prohibited. The program shall also underscore the requirement for confidentiality and culturally appropriate treatment of any find of significance to Native Americans, consistent with Native American tribal values and customs.

The training shall include, at a minimum:

- A brief overview of the cultural sensitivity of the Project site and surrounding area
- What resources could potentially be identified during ground disturbance
- The protocols that apply in the event unanticipated cultural or tribal cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated
- Consequences in the event of noncompliance
- Safety procedures when working with the onsite archaeologist and designated Tribal Representative(s)

MM CUL-4/TCR-4: Discovery of Previously Unknown Cultural or Tribal Cultural Resources. If any potential tribal cultural resources, archaeological resources, other cultural resources, or articulated or disarticulated human remains are discovered by Project personnel during construction activities, all work shall cease within 100 feet of the find, or an agreed upon distance based on the Project sites and nature of the find. The work stoppage shall remain in place until CSLC, the Project archaeologist, and Tribal Representative(s) have jointly determined the nature of the discovery, and the significance of the discovery has been determined by either the Project archaeologist and CSLC (for cultural resources) or the Tribal Representative(s) (for tribal cultural resources), as detailed in the CRMTP. Tribal cultural resources shall not be photographed nor be subjected to any studies beyond such inspection as may be necessary to determine the nature and significance of the discovery. If the discovery is confirmed as potentially significant or a tribal cultural resource, an Environmentally Sensitive Area (ESA) shall be established using fencing or other suitable material to protect the discovery during subsequent investigation. No ground-disturbing activities shall be permitted within the ESA until the area has been cleared for construction by CSLC, Project archeologist, and Tribal Representative(s). The exact location of the resources within the ESA must be kept confidential and measures shall be taken to secure the area from site disturbance and potential vandalism.

Impacts to previously unknown significant cultural and tribal cultural resources shall be avoided through preservation in place if feasible. If the Project archaeologist or Tribal Representative(s), as appropriate, determines that damaging effects on the cultural or tribal cultural resource can be avoided in place, then work in the area may resume provided the area of the discovery remains clearly marked for no disturbance.

Title to all archaeological sites, historic or cultural resources, and tribal cultural resources on or in the tide and submerged lands of California is vested in the State and under CSLC jurisdiction. The final disposition of archaeological, historical, and tribal cultural resources recovered on State lands under CSLC jurisdiction must be approved by CSLC.

MM CUL-5/TCR-5: Unanticipated Discovery of Human Remains. If human remains or associated grave goods (e.g., non-human funerary objects, artifacts, animals, ash or other remnants of burning ceremonies) are encountered, all ground disturbing activities shall halt within 100 feet of the discovery or other agreed upon distance based on the Project sites and nature of the find; the remains shall be treated with respect and dignity and in keeping with all applicable laws including California Health and Safety Code section 7050.5 and California Public Resources Code section 5097.98. If representatives are not already onsite when a discovery is made, the Project Archaeologist, Tribal Representative(s), and CSLC shall be notified immediately. The Project archaeologist shall contact the County Coroner within 24 hours. If human remains are determined by the County Coroner to be of Native American origin, the County Coroner shall notify the NAHC within 24 hours of this determination, and the NAHC shall identify a Most Likely Descendent. No work is to proceed in the discovery area until consultation is complete and procedures to avoid or recover the remains have been implemented. Unless otherwise required by law, the site of any reburial of Native American human remains shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act, Cal. Govt. Code § 6250 et seq. The reburial agreement described in the CRMTP shall include specific details about temporary custody of remains, reburial location, confidentiality, and recordation in the California Historic Resources Inventory System.

4.4.5 Cumulative Impacts Analysis

Impact CR-3: Cumulative Impacts to Cultural Resources

Project-related ground disturbance may incrementally contribute to cumulative impacts to cultural resources **(Less than Significant with Mitigation).**

Impact Discussion

Archaeological sites are non-renewable resources that have been destroyed at an alarming rate statewide and locally. Therefore, the assessment of potential cumulative impacts on cultural resources within the proposed Project sites considers these past activities resulting in loss of archaeological sites, along with other probable future projects in the vicinity.

Cumulative projects included within Table 3-3 would involve ground disturbances that would potentially impact cultural resources in other archaeologically sensitive areas.

In many cases, site redesign or use of fill could minimize potentially significant, adverse impacts. Total avoidance of cultural resources would not be reasonably expected, however, and increased human activity in the vicinity of cultural resources would lead to greater exposure, potential for unauthorized artifact collection, and inadvertent disturbance during construction. Therefore, cumulative impacts to archaeological resources caused by past, present, and future probable projects in the undeveloped coastal areas in the vicinity of the Project sites are considered significant. The city of Carpinteria, Santa Barbara County, and Ventura County all have policy considerations and standard mitigations for addressing the potential for ground disturbances that impact cultural resources, including requirements for surveys in archaeologically sensitive areas, field investigations to precisely delineate site boundaries, significance assessments, and, when required to mitigate significant resources, data recovery programs. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2, MM CUL-3/TCR-3, MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5,** cumulative impacts would be less than significant.

Mitigation Measures

MM CUL-1/TCR-1: Cultural and Tribal Cultural Resources Management and Treatment Plan

MM CUL-2/TCR-2: Cultural and Tribal Cultural Resources Monitoring

MM CUL-3/TCR-3: Cultural and Tribal Cultural Resources Awareness Training

MM CUL-4/TCR-4: Discovery of Previously Unknown Cultural or Tribal Cultural Resources

MM CUL-5/TCR-5: Unanticipated Discovery of Human Remains

4.4.6 Summary of Impacts and Proposed Mitigation Measures

Table 4.4-2. Summary of Cultural Resources Impacts and Mitigation Measures

Impact	Mitigation Measures
Impact CR-1: Potential Impacts to the Significance of a Historical Resource During Project Implementation	None Required
Impact CR-2: Substantial Adverse Change to Previously Undiscovered Cultural Resources During Project Implementation	**MM CUL-1/TCR-1:** Cultural and Tribal Cultural Resources Management and Treatment Plan **MM CUL-2/TCR-2:** Cultural and Tribal Cultural Resources Monitoring **MM CUL-3/TCR-3:** Cultural and Tribal Cultural Resources Awareness Training

Impact	Mitigation Measures
	MM CUL-4/TCR-4: Discovery of Previously Unknown Cultural or Tribal Cultural Resources **MM CUL-5/TCR-5:** Unanticipated Discovery of Human Remains
Impact CR-3: Cumulative Impacts to Cultural Resources	**MM CUL-1/TCR-1:** Cultural and Tribal Cultural Resources Management and Treatment Plan **MM CUL-2/TCR-2:** Cultural and Tribal Cultural Resources Monitoring **MM CUL-3/TCR-3:** Cultural and Tribal Cultural Resources Awareness Training **MM CUL-4/TCR-4:** Discovery of Previously Unknown Cultural or Tribal Cultural Resources **MM CUL-5/TCR-5:** Unanticipated Discovery of Human Remains

4.5 CULTURAL RESOURCES – TRIBAL

4.5.1 Environmental Setting

The Project site is located within the ethnographic territory of the Coastal Chumash people, who inhabited an area that extended from Morro Bay to Malibu along the coast (Kroeber 1925). The Chumash have been divided into several geographic groups, each associated with a distinct language dialect (Hoover 1986). The Chumash living in Ventura County formed the Ventureño dialect group of the Chumash language family. This group was named for their association with the Spanish Mission San Buenaventura, founded in 1782. Another dialect of Chumash, Barbareño, named for its association with Mission Santa Barbara, founded December 4, 1786, was spoken throughout the SBC region. The Project site is located near the boundary between these two adjoining dialect-regions. At the time of Spanish contact in Anno Domini (A.D.). 1542, the Barbareño population was concentrated most heavily near the mouths of canyons. Major Barbareño Chumash villages include sukuw at Rincon Point, misopsno at Carpinteria Creek, heloʔ at Mescalitan Island – Goleta Slough, syuxtun at Burton Mound, and mikiw and kuyamu at Dos Pueblos. Alternately, major Ventureño Chumash villages include sisolop in Ventura, Matilja in Ojai, simiyi near Simi, and Muwu at Point Mugu (Grant 1978).

Prior to colonization, the Chumash were a non-agrarian culture and relied on hunting and gathering for their sustenance. Archaeological evidence indicates that the Chumash utilized marine food resources from the earliest occupation of the coast at least 9,000 years ago (Greenwood 1978). Much of their subsistence was derived from pelagic fish, particularly during the late summer and early fall (Hoover 1986). Shellfish were also harvested, including mussel and abalone from rocky shores and cockle and clams from sandy beaches. Acorns were a food staple; they were ground into flour using stone mortars and pestles and then leached to remove tannic acid. In addition, a wide variety of seeds, including chia from various species of sage, was utilized. The Chumash harvested several plants for their roots, tubers, or greens (Hoover 1986).

In this area, as elsewhere in California, basketry served many of the functions that pottery did in other places. The Chumash used baskets for cooking, serving, storage, and transporting burdens. Some basket makers wove baskets so tightly that they could hold water while others waterproofed their baskets by lining them with pitch or asphaltum (Chartkoff and Chartkoff 1984).

The coastal Chumash practiced a regular seasonal round of population dispersal and aggregation in response to the location and seasonal availability of different food resources (Landberg 1965). In this way, large coastal villages would have been fully populated only in the late summer when pelagic fishing was at its peak. Through winter, the Chumash depended largely on stored food resources. During the spring and summer, the population dispersed through inland valleys to harvest wild plant resources (Landberg 1965).

The Chumash lived in large, hemispherical houses constructed by planting willows or other poles in a circle and bending and tying them together at the top. These structures were then covered with tule mats or thatch. Structures such as this housed 40 to 50 individuals, or three-to-four-member family groups. Dance houses and sweathouses are also reported for the Chumash (Kroeber 1925). Archaeological evidence supports observations that twin or split villages, such as those of kuyamu and mikiw, existed on opposite sides of streams or other natural features, possibly reflecting the moiety system[11] of native California (Greenwood 1978).

Chumash political organization was typified by small-scale chiefdoms (Hoover 1986). Chiefs were associated with villages or segments of larger villages. Higher status chiefs controlled entire regions containing several villages. The chiefly offices were normally inherited through the male line with a primogeniture rule, i.e., the custom of the firstborn inheriting the office (Hoover 1986). Chiefs had several bureaucratic assistants to help in political affairs and serve as messengers, orators, and ceremonial assistants. Several status positions were associated with specialized knowledge and rituals such as weather prophet, ritual poisoner, herbalist, etc. (Bean 1974).

4.5.1.1 Tribal Coordination

Pursuant to Executive Orders B-10-11 and N-15-19 affirming that State policy requires and expects coordination with tribal governments in public decision making (Appendix B), CSLC follows its 2016 Tribal Consultation Policy, which provides guidance and consistency for staff in its interactions with California Native American Tribes (CSLC 2016). The Tribal Consultation Policy, which was developed in collaboration with tribes, other state agencies and departments, and the Governor's Tribal Advisor, recognizes that tribes have a connection to areas that may be affected by CSLC actions and "that these Tribes and their

11 A moiety system is where a society is divided into two halves and each descent group coexists with the other descent group.

members have unique and valuable knowledge and practices for conserving and using these resources sustainably" (CSLC 2016).

Additionally, under AB 52 (Gatto), Chapter 532, Statutes of 2014, lead agencies must avoid damaging effects on tribal cultural resources, when feasible, whether consultation occurred or is required. CSLC contacted the NAHC, which maintains two databases to assist specialists in identifying cultural resources of concern to California, the Native Americans Sacred Lands File and Native American Contacts. A request was sent to the NAHC for a sacred lands file search of the Project site and a list of Native American representatives who may be able to provide information about resources of concern located within or adjacent to the Project site.

In preparation for the Rincon Phase 2 Decommissioning Feasibility Study and EIR, CSLC provided informal updates and requested early feedback from geographically and culturally affiliated tribes in the Summer of 2021 and again in Fall of 2022.

On June 1, 2021, the NAHC provided a letter and a list of nine Tribal contacts from the following six Tribes (NAHC 2021):

- Barbareño/Ventureño Band of Mission Indians
- Coastal Band of the Chumash Nation
- San Luis Obispo County Chumash Council
- Northern Chumash Tribal Council
- Chumash Council of Bakersfield
- Santa Ynez Band of Chumash Indians

The NAHC's reply also stated that no records were identified in the Sacred Lands File record search for the Project sites.

The CSLC Tribal Liaison then sent out two email notifications, one on June 7, 2021, to notify the Tribes of the Phase 2 Feasibility Workshop, and one on August 10, 2021, to provide an overview of the Phase 2 process. One email comment was received from the Tribal Chair for the Coastal Band of the Chumash Nation, asking to be part of the outreach to tribal governments. In December 2021, the Chair reiterated interest in coordinating on the decommissioning, particularly as it relates to the Onshore Facility site.

On March 17, 2022, the CSLC Tribal Liaison sent an email to Tribes notifying them of the release of the draft Feasibility Study. On April 10, 2022, the CSLC Tribal Liaison sent another notification to Tribes regarding a public meeting to be held on the draft Feasibility Study on May 4, 2022.

At the August 23, 2022, Commission meeting, staff received guidance from the Commission to formalize, either through a letter of interest or a letter of partnership, a potential co-management agreement with the Coastal Band of the Chumash Nation for the Project sites. Commissioners expressed their support for a reuse option for the Project sites partnering with the Tribe to explore mutual benefits including supporting the State's 30 x 30 conservation goals and shared stewardship of the land.

In coordination with the release of the CEQA Notice of Preparation on October 4, 2022, the CSLC Tribal Liaison sent outreach letters to all Tribes on the NAHC list notifying the Tribes of the Project and Project scoping meetings to be held on October 20, 2022. CSLC staff did not receive any written requests from Tribes pursuant to the provisions of Assembly Bill 52. On October 12, 2022, the CSLC Tribal Liaison received a letter from the Santa Ynez Band of Chumash Indians, stating that the Elders' Council requests no further consultation on the Project. The CSLC Tribal Liaison provided the Cultural Resources and Cultural Resources - Tribal sections of the EIR and the archaeological report (Appendix F) to Tribal representatives of the Coastal Band of the Chumash Nation and the Santa Ynez Band of Chumash Indians on October 26, 2023, to obtain input.

On November 22, 2023, staff received a response from the Santa Ynez Band of Chumash Indians. They appreciated the cumulative impacts discussion and the ability to collaborate on the Cultural Resources Management and Treatment Plan per **MM CUL-1/TCR-1**. The Tribe requested to have monitors on site during onshore ground disturbance as part of **MM CUL-2/TCR-2** (addressed in sections 4.4.5 and 4.5.4). Additionally, they requested to have their Worker Environmental Awareness Program included as part of **MM CUL-3/TCR-3** (also addressed in sections 4.4.5 and 4.5.4). The Tribe also expressed optimism that the "smallest footprint for the decommissioning activities occur in order to protect potentially buried portions of the VEN-141, -241 or -644".

4.5.2 Regulatory Setting

Federal and state laws and regulations pertaining to tribal cultural resources and relevant to the Project including CCA Chapter 3, Section 30244 are discussed in

Appendix B. See Section 4.4.2, Regulatory Setting, for a listing of local cultural resources policies.

4.5.3 Significance Criteria

Public Resources Code section 21084.2 states, “A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.” Lead agencies are directed to avoid damaging effects to tribal cultural resources, when feasible. If measures are not otherwise identified in consultation with affected Tribes to mitigate a substantial adverse change to a tribal cultural resource, the examples of measures provided in Public Resources Code section 21084.3 may be considered, if feasible.

An impact to tribal cultural resources would be significant if the project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either:

(1) 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 listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in Public Resources Code section 5020.1 subdivision (k) or

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code section 5024.1, subdivision (c). In applying the criteria set forth in Public Resources Code section 5024.1, Sui vision (c), the lead agency shall consider the significance of the resource to a California Native American tribe.

In making a finding that a resource is a tribal cultural resource, the CSLC may consider, among other evidence, elder testimony, oral history, tribal archival information, testimony of an archaeologist or other expert certified by the Tribe, official declarations or resolutions adopted by the Tribe, formal statements by the Tribe’s historic preservation officer, or other historical notes and anthropological records (OPR 2017).

4.5.4 Impact Analysis and Mitigation

Impacts to tribal cultural resources can be direct or indirect. Direct impacts result from ground disturbances directly and indirectly caused by construction, decommissioning, operation, or maintenance. Indirect impacts result from increased access to archaeological sites, i.e., construction or facility employees participating in unauthorized artifact collecting. The proposed Project does not include any operational or maintenance activities other than routine inspections of the causeway, watering of new vegetation at the SCC Parcel, and soil bioremediation land treatment activities at the Onshore Facility (should remediation Option 3 be chosen); none of these activities would include ground disturbance of previously undisturbed areas. A discussion of potential impacts of each Project component and recommended MMs are provided below.

Impact TCR-1: Substantial Adverse Change to Previously Undiscovered Tribal Cultural Resources During Project Implementation

Project activities would have the potential to affect tribal cultural resources as there are three known cultural resources near the onshore Project sites. **(Less than Significant with Mitigation).**

Impact Discussion

Three resources recorded within a 0.25-mile radius of the onshore Project sites, CA-VEN-141, CA-VEN-241, and CA-VEN-644, have not been formally evaluated; thus, under CEQA they are assumed eligible for listing on the CRHR and "tribal cultural resources" (defined as 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).

Rincon Island

No tribal cultural resources have been identified within the Rincon Island Project site or within a 0.25-mile radius. The proposed Project activities include the removal of historic-aged structures and the removal of contaminated artificial fill soils. The potential to encounter subsurface tribal cultural resources during demolition and soil removal is considered very low. Therefore, impacts to previously undiscovered tribal cultural resources are not likely and the impact would be less than significant.

<u>Public Facilities Retention Option</u>

Project activities and impacts would be similar to the discussion above except the existing septic system infrastructure could remain in place following removal of the existing buildings. Therefore, impacts to previously undiscovered tribal cultural resources are not likely and the impact would be less than significant.

SCC Parcel

Option 1: Native Revegetation and Access Improvements

No tribal cultural resources have been identified within the SCC Parcel. Due to the movement of sand on a seasonal basis (i.e., sand is generally scoured off the beach during the winter months as a result of high surf activity but is generally deposited during the summer months of gentle surf), intact precontact cultural material is generally not found along the oceanfront. The potential to encounter subsurface cultural resources during non-native vegetation removal and replacement with native species by hand, and adding crushed rock to existing trails is considered very low. However, installation of the stairway and removal of coastal hazards along the shoreline could require minor excavation, which could affect undiscovered cultural resources. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2**, **MM CUL-3/TCR-3**, **MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5**, the impact would be less than significant.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

Option 2 would include the components of Option 1 but would also require installation of a cobble back berm within the parcel. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2**, **MM CUL-3/TCR-3**, **MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5**, the impact would be less than significant.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

Option 3 would include the components of Option 1 but would also require installation of riprap along the parcel frontage. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2**, **MM CUL-3/TCR-3**, **MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5**, the impact would be less than significant.

Onshore Pipeline Connections

Two previously recorded tribal cultural resources, CA-VEN-141 and CA-VEN-644, are located 387 feet east and 185 feet northwest of the OPC vault, respectively. Proposed Project activities include minimal excavation within previously disturbed soils. There is a low potential that Project-related ground disturbance would exceed previous depths during decommissioning and affect undiscovered tribal cultural resources, such as at the end of the pipeline casing. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2, MM CUL-3/TCR-3,**

MM CUL-4/TCR-4, and **MM CUL-5/TCR-5**, the impact would be less than significant.

Onshore Facility

One previously recorded tribal cultural resource, CA-VEN-241, is located 130 feet northeast of the Onshore Facility. During site assessment coring, as well as observations during the pedestrian survey, up to 15 feet of artificial fill and up to a foot of deposited sand and silt from heavy runoff due to recent rainfall was noted within the Onshore Facility. Any Project Options that propose excavation are not anticipated to exceed 10 feet bgs; therefore, the potential to encounter subsurface tribal cultural resources during soil removal is considered very low in this artificial fill and sandy material. Additionally, installation of the 750-foot steel sheet pile wall (potentially part of all Onshore Facility options) to a depth of 20 feet bgs between the Onshore Facility and the upgradient Coast Ranch parcel would be accomplished using an excavator to hold the sheet pile wall in place and a vibratory hammer to vibrate the sheet pile wall below ground, which does not require excavation.

<u>Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation</u>

Option 1 would not include any active remediation or excavation of contaminated soil, but would utilize the existing recycled asphalt aggregate base material currently placed throughout the Onshore Facility Project site as well as new asphalt as a surface cap across the areas of contaminated soil onsite. If authorized by the responsible permitting agencies, implementation of this option would allow the existing contaminated soil to remain in-place, as it would be capped with recycled asphalt aggregate base material. Implementation of this option would avoid excavation onsite; therefore, impacts to previously undiscovered tribal cultural resources are not likely and the impact would be less than significant

<u>Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation</u>

Option 2 would include excavation of the existing contaminated soil to an estimated depth of 10 feet bgs. During site assessment coring, as well as observations during the pedestrian survey, up to 15 feet of artificial fill and up to a foot of deposited sand and silt from heavy runoff due to recent rainfall was noted within the Onshore Facility. There is a low potential that Project-related excavation would extend below the observed fill and into natural substrate during remediation and affect undiscovered tribal cultural resources. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2, MM CUL-3/TCR-3, MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5,** the impact would be less than significant.

Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation

Option 3 would include excavation of the existing contaminated soil to an estimated depth of 10 feet bgs and use of an onsite soil bioremediation land treatment to remediate existing contamination. During site assessment coring, as well as observations during the pedestrian survey, up to 15 feet of artificial fill and up to a foot of deposited sand and silt from heavy runoff due to recent rainfall was noted within the Onshore Facility. There is a low potential that Project-related excavation would extend below the observed fill and into natural substrate during remediation and affect undiscovered tribal cultural resources. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2, MM CUL-3/TCR-3, MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5,** the impact would be less than significant.

Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation

Option 4 would include the use of either an excavator or a large diameter flight auger to facilitate in-situ mixing of petroleum hydrocarbon-containing soil with a common reagent such as cement to solidify and stabilize in-place the petroleum hydrocarbon-containing soil. The use of in-situ groundwater bioremediation (injection of oxygen releasing compounds using a direct-push drilling rig) would also be utilized at an elevation that is geologically downgradient from the contamination source zones. Implementation of this option would allow the existing contaminated soil to remain in place, as it would be mixed with cement in order to encapsulate the material onsite.

During site assessment coring, as well as observations during the pedestrian survey, up to 15 feet of artificial fill and up to a foot of deposited sand and silt from heavy runoff due to recent rainfall was noted within the Onshore Facility. There is a low potential that Project-related in-situ mixing would extend below the observed fill and into natural substrate during remediation and affect undiscovered tribal cultural resources. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2, MM CUL-3/TCR-3, MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5,** the impact would be less than significant.

Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation

Option 5 would include localized excavation of the Onshore Facility at specified locations at depths of approximately 3 feet or less, and capping the areas containing petroleum hydrocarbon-containing soil at depths greater than approximately 3 feet. In-situ groundwater bioremediation would also occur by injecting oxygen releasing compounds using a direct-push drilling rig. During site assessment coring, as well as observations during the pedestrian survey, up to 15 feet of artificial fill and up to a foot of deposited sand and silt from heavy runoff due to recent rainfall was noted within the Onshore Facility. There is a low potential that Project-related excavation would extend below the observed fill and into natural substrate during remediation and affect undiscovered tribal cultural resources. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2, MM CUL-3/TCR-3, MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5,** the impact would be less than significant.

Mitigation Measures

MM CUL-1/TCR-1: Cultural and Tribal Cultural Resources Management and Treatment Plan (see Section 4.4.4, Cultural Resources)

MM CUL-2/TCR-2: Cultural and Tribal Cultural Resources Monitoring (see Section 4.4.4, Cultural Resources)

MM CUL-3/TCR-3: Cultural and Tribal Cultural Resources Awareness Training (see Section 4.4.4, Cultural Resources)

MM CUL-4/TCR-4: Discovery of Previously Unknown Cultural or Tribal Cultural Resources (see Section 4.4.4, Cultural Resources)

MM CUL-5/TCR-5: Unanticipated Discovery of Human Remains (see Section 4.4.4, Cultural Resources)

4.5.5 Cumulative Impacts Analysis

Impact TCR-2: Cumulative Impacts to Tribal Cultural Resources

Project-related ground disturbance may incrementally contribute to cumulative impacts to tribal cultural resources **(Less than Significant with Mitigation).**

Impact Discussion

Tribal cultural resources are non-renewable resources that have been destroyed at an alarming rate statewide and locally. Therefore, the assessment of potential cumulative impacts on tribal cultural resources within the proposed onshore Project sites considers these past activities resulting in loss of tribal cultural resources, along with other probable future projects in the vicinity.

Cumulative projects included in Table 3-3 would involve ground disturbances that would potentially impact tribal cultural resources in culturally sensitive areas.

In many cases, site redesign or use of fill material could minimize potentially significant, adverse impacts. Total avoidance of tribal cultural resources would not be reasonably expected, however, and increased human activity in the vicinity of tribal cultural resources would lead to greater exposure, potential for unauthorized artifact collection, and inadvertent disturbance during construction. Therefore, cumulative impacts to tribal cultural resources caused by past, present, and future probable projects in the undeveloped coastal areas in the vicinity of the Project site are considered significant. The city of Carpinteria, Santa Barbara County, and Ventura County all have policy considerations and standard mitigations for addressing the potential for ground disturbances that impact tribal cultural resources, including requirements for surveys in culturally sensitive areas, field investigations to precisely delineate site boundaries, significance assessments and, when required, to mitigate for significant impacts to resources through data recovery programs. With implementation of **MM CUL-1/TCR-1**, **MM CUL-2/TCR-2, MM CUL-3/TCR-3, MM CUL-4/TCR-4**, and **MM CUL-5/TCR-5** the impact would be less than significant.

Mitigation Measures

MM CUL-1/TCR-1: Cultural and Tribal Cultural Resources Management and Treatment Plan (see Section 4.4.4, Cultural Resources)

MM CUL-2/TCR-2: Cultural and Tribal Cultural Resources Monitoring (see Section 4.4.4, Cultural Resources)

MM CUL-3/TCR-3: Cultural and Tribal Cultural Resources Awareness Training (see Section 4.4.4, Cultural Resources)

MM CUL-4/TCR-4: Discovery of Previously Unknown Cultural or Tribal Cultural Resources (see Section 4.4.4, Cultural Resources)

MM CUL-5/TCR-5: Unanticipated Discovery of Human Remains (see Section 4.4.4, Cultural Resources)

4.5.6 Summary of Impacts and Proposed Mitigation Measures

Table 4.5-1. Summary of Tribal Cultural Resources Impacts and Mitigation Measures

Impact	Mitigation Measures
Impact TCR-1: Substantial Adverse Change to Previously Undiscovered Tribal Cultural Resources During Project Implementation	**MM CUL-1/TCR-1:** Cultural and Tribal Cultural Resources Management and Treatment Plan **MM CUL-2/TCR-2:** Cultural and Tribal Cultural Resources Monitoring **MM CUL-3/TCR-3:** Cultural and Tribal Cultural Resources Awareness Training **MM CUL-4/TCR-4:** Discovery of Previously Unknown Cultural or Tribal Cultural Resources **MM CUL-5/TCR-5:** Unanticipated Discovery of Human Remains
Impact TCR-2: Cumulative Impacts to Tribal Cultural Resources	**MM CUL-1/TCR-1:** Cultural and Tribal Cultural Resources Management and Treatment Plan **MM CUL-2/TCR-2:** Cultural and Tribal Cultural Resources Monitoring **MM CUL-3/TCR-3:** Cultural and Tribal Cultural Resources Awareness Training **MM CUL-4/TCR-4:** Discovery of Previously Unknown Cultural or Tribal Cultural Resources **MM CUL-5/TCR-5:** Unanticipated Discovery of Human Remains

4.6 GEOLOGY AND COASTAL PROCESSES

This section discusses potential geologic issues that may be associated with the proposed Project. During decommissioning activities, potential geologic impacts could result from seismic hazards including wave and tidal forces, earthquakes, faulting, surface rupture, ground shaking, liquefaction, subsidence, and tsunamis as well as coastal processes including erosion, scour, and sediment movement. This section outlines the environmental setting, regulatory setting, significance criteria, potential for impacts to the remaining facilities from various geological events, and significance of these impacts.

However, in accordance with CEQA, Project analysis should address the potential impacts of the Project on the environment, not the potential impacts of the environment on the Project. As stated by the California Supreme Court, "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users." (California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal. 4th 369, 386 (CBIA)).

Therefore, the analysis with respect to geology does not evaluate existing environmental risks that could affect the Project because the Project would not exacerbate them, consistent with the Court's ruling in CBIA.

4.6.1 Environmental Setting

The Project sites are located along the coastline and immediately offshore within the Ventura County North Coast planning area, which spans approximately 12 miles from the northern Ventura County line at Rincon Point southward to the Ventura River (Ventura County 2021). A site-specific geologic setting (including physiography, stratigraphy, soil and soil-related hazards, faulting and seismicity) and discussion of coastal processes at each of the Project sites is provided below.

4.6.1.1 Physiography

The Project sites are located on the edge of a geologically complex and active area that includes a portion of the Santa Ynez Mountains, formed by thrust faulting and east-west folds. Sedimentary Miocene marine terraces extend from these mountains to the ocean, where they have been eroded to prominent coastal bluffs. A significant geologic feature in the vicinity of the Project sites is Punta Gorda, which is a coastal headland composed of a resistant rock outcrop (Griggs 2022) within the shoreline of Mussel Shoals Beach.

Rincon Island is located approximately 3,000 feet offshore of Punta Gorda on a gradually sloping coastal plain composed of silty sand with isolated rocky outcroppings composed of shale and siltstone (ASCE 1959). The Rincon causeway abutment is located on the rocky headland of Punta Gorda, which is comprised of a hard sandstone member of the Pico Formation with sandy beaches located to the east and west (Everest 2014).

The SCC Parcel is roughly triangular in shape and extends from the roadway leading to the causeway on the west, to Breakers Way on the north, and then across a nearly flat terrace, down a low bluff and across the beach on the southeast. Elevations range from about 20 feet along Breakers Way to approximately 1 foot along the lowest part of the shoreline.

The OPC is located approximately 0.11 mile northeast of the causeway entrance. This area is situated on an alluvial fan located immediately below the terraced hills of Rincon Mountain. The Onshore Facility is located approximately 1.3 miles southeast of the OPC, at the bottom of the Los Sauces Creek drainage immediately southwest of Rincon Mountain.

4.6.1.2 Stratigraphy

Rincon Island, located offshore of Punta Gorda, is a human-made structure constructed of riprap, concrete tetrapods, and artificial fill (af) material composed of fine to coarse-grained sand that was imported from the bluff behind Punta Gorda, located north of Rincon Island (ASCE 1959). The riprap revetments consist of locally sourced boulders from Cold-Water Sandstone mined from the Stanley Park Ranch located in Carpinteria, California (ASCE 1959).

A rocky headland composed of an outcrop of a hard sandstone member of the Pico Formation forms the coastal point of Punta Gorda under the Rincon causeway abutment and extends offshore forming a shallow reef. The SCC Parcel, located on the southeast side of Punta Gorda, is composed of Quaternary beach sand deposits (Qs) composed of sand, gravel, and cobbles (Dibblee 1988).

The geologic setting in the vicinity of the OPC is composed of Quaternary alluvium (Qa), which consists of unconsolidated floodplain deposits of silt, sand, and gravel (Dibblee 1988).

The Onshore Facility consists of surficial deposits of artificial fill material composed of silt, sand, clay, and recycled asphalt aggregate base material, observed within soil corings onsite as being up to 14 feet deep. The artificial fill material was placed over native Quaternary alluvium beach soils onsite that are composed of silt, sand, gravel, and cobbles (Padre 2021b). This layering is primarily attributed to construction of U.S. Highway 101 in the late 1950s, which necessitated a significant addition of artificial fill on top of the native material in this area to create the required grade for freeway construction. Further below the native Quaternary alluvial beach soils, the Onshore Facility contains a light gray to tan, well-bedded sandstone interbedded with gray claystone of the Pico Formation. The Miocene Sisquoc Shale (Tsq) and Monterey Formation (Tm) strata, which are composed of gray to white siliceous shale, also exist in the deeper subsurface beneath the Onshore Facility (CGS 1969).

4.6.1.3 Soils and Soil-Related Hazards

Surface soils within the Project sites include those found along the shoreline (including the SCC Parcel) at Mussel Shoals Beach and within the drainage areas immediately below the terraced hills of Rincon Mountain for the OPC and Onshore Facility. According to the U.S. Department of Agriculture, Natural Resource Conservation Service – Web Soil Survey (NRCS 2022), the soil in the vicinity of the SCC Parcel consists of Coastal beaches (CnB) which are composed of poorly drained coarse-grained sands. The soil in the vicinity of the OPC consists of the Garretson silt loam (GcB), calcareous variant, which is composed of well drained, silt loam alluvium derived from sedimentary rock. The soil in the vicinity of the Onshore Facility consists predominantly of poorly drained fine and coarse-grained beach sands. The Pico sandy loam (PcC), consisting of well drained, sandy loam alluvium derived from sedimentary rock, exists immediately northeast of the Onshore Facility (NRCS 2022).

According to a map of soil susceptibility to compaction, soils within the Project sites have a low to medium rating for susceptibility to compaction (NRCS 2022). Soil compaction reduces the pore space between soil particles, which limits the soil's ability to transport water and limits root growth. The soils within the Project sites have a relatively low to moderate rating for susceptibility to surface sheet flow and channel cut erosion by water, and a relatively moderate to high susceptibility to wind erosion (NRCS 2022). Additionally, according to the

Ventura County General Plan, Coastal Area Plan, the North Coast beaches are highly vulnerable to erosion by wave action (Ventura County 2020).

4.6.1.4 Faulting and Seismicity

The onshore sites (including the SCC Parcel, OPC, and Onshore Facility) are located within the Transverse Ranges geomorphic province of Southern California. The Transverse Ranges province, a seismically active region of Southern California, is oriented generally east-west, which is oblique to the general north-northwest structural trend of California mountain ranges. The Transverse Ranges province extends from the Los Angeles Basin westward to Point Arguello and is composed of Cenozoic-to Mesozoic-age sedimentary, igneous, and metamorphic rocks. Near the existing facilities, the east-west trending Santa Ynez Mountains and adjacent lowlands were formed by thrust faulting and are comprised of sedimentary rocks and soil materials ranging in age from Cretaceous to Holocene. The axial plane of the east-west trending Rincon Anticline is estimated to traverse approximately 400 feet north of Rincon Island, located offshore of Punta Gorda (Dibblee 1988).

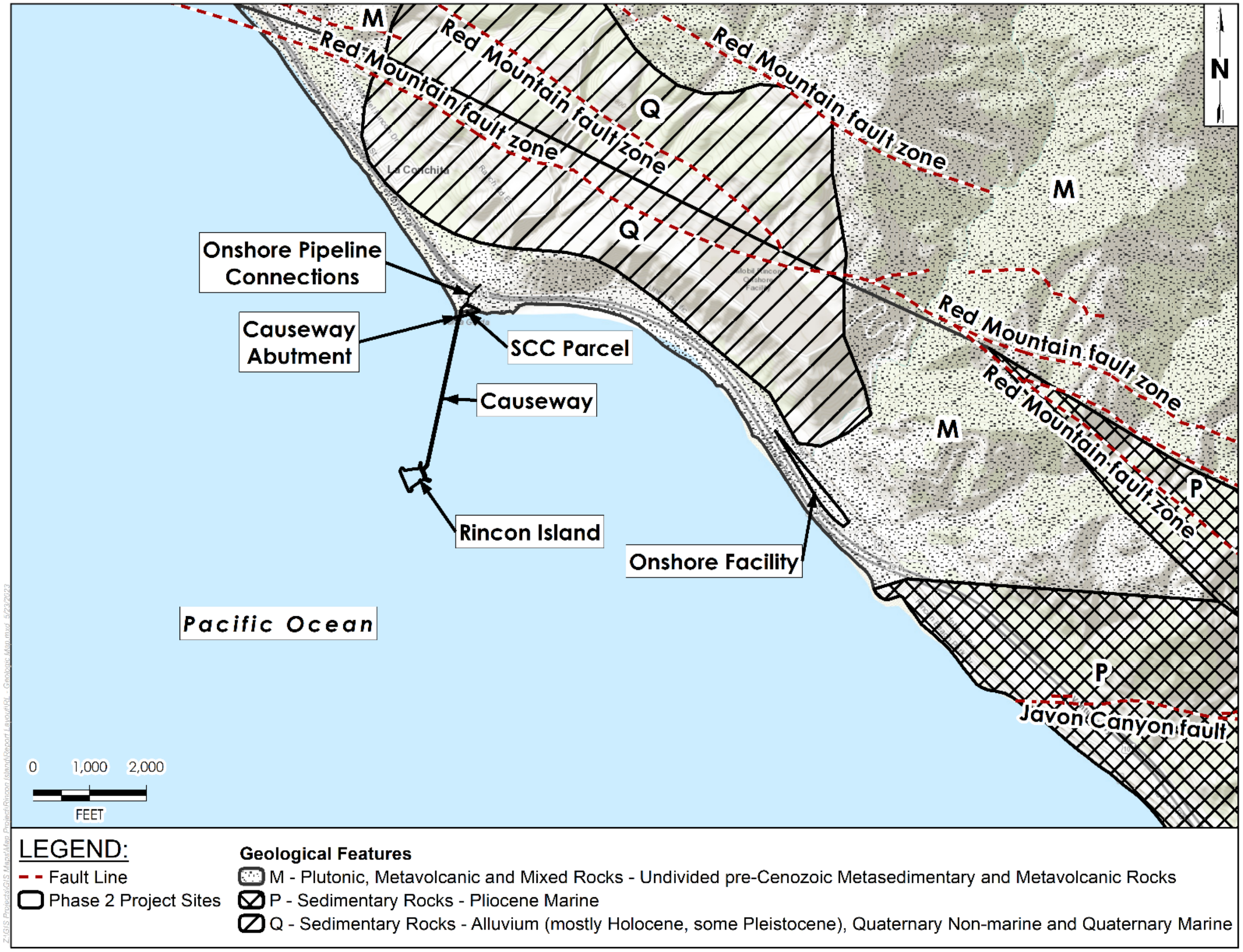
As shown on Figure 4.6-1, the closest fault to the onshore sites is the east-west oriented Red Mountain Fault located approximately 0.75 mile northeast of the Onshore Facility (CDC 2021). The Red Mountain Fault is a thrust fault with a slip rate of between 0.4 and 1.5 millimeters per year (SCEDC 2022).

The United States Geologic Service (USGS) indicates that the maximum magnitude of the Red Mountain Fault is approximately 7.4 on the Richter scale (USGS 2008). The Red Mountain Fault is identified within the Ventura County General Plan, Coastal Area Plan (see Figure 4.2-8 of this plan) as a Special Study Zone (2020). The Javon Canyon Fault (Padre Juan Fault) is located southeast of the Onshore Facility, and it has a slip rate of about 1.1 millimeters per year.

Movement along active and potentially active faults, either onshore or offshore near the Project sites, including the San Andreas Fault, Red Mountain Fault, Javon Canyon Fault, Ventura-Pitas Point Fault, and several others, could induce seismic shaking. As indicated in the Ventura County Coastal Area Plan, short periods of low to moderate ground shaking are a potential North Coast hazard.

Additional geologic hazards associated with seismicity include surface rupture, liquefaction, subsidence, and tsunamis. These hazards are further discussed below.

Figure 4.6-1. Geology and Faulting Within the Vicinity of the Project Sites



Surface Rupture and Other Types of Seismic Ground Failure. Surface ruptures comprise the displacement and cracking of the ground surface along a fault trace. Surface ruptures are visible instances of horizontal or vertical displacement, or a combination of the two, typically confined to a narrow zone along the fault. Differential settlement is a process whereby soil settles non-uniformly, potentially resulting in stress and damage to pipelines and other overlying structures. Such movement can occur in the absence of seismically induced ground failure, due to improper grading and soil compaction or discontinuity of naturally occurring soils; however, strong ground shaking often greatly exacerbates soil conditions already prone to differential settlement, resulting in distress to overlying structures. Elongated structures, such as pipelines, are especially prone to damage as a result of differential settlement.

Lateral spreading is a type of seismically induced ground failure that occurs when cracks and fissures form on an unsupported slope, resulting in lateral propagation and failure of slope material in a downslope direction. This type of failure is common in unconsolidated river or stream bank deposits, where lateral stream scour creates steep banks in unconsolidated silts and sands.

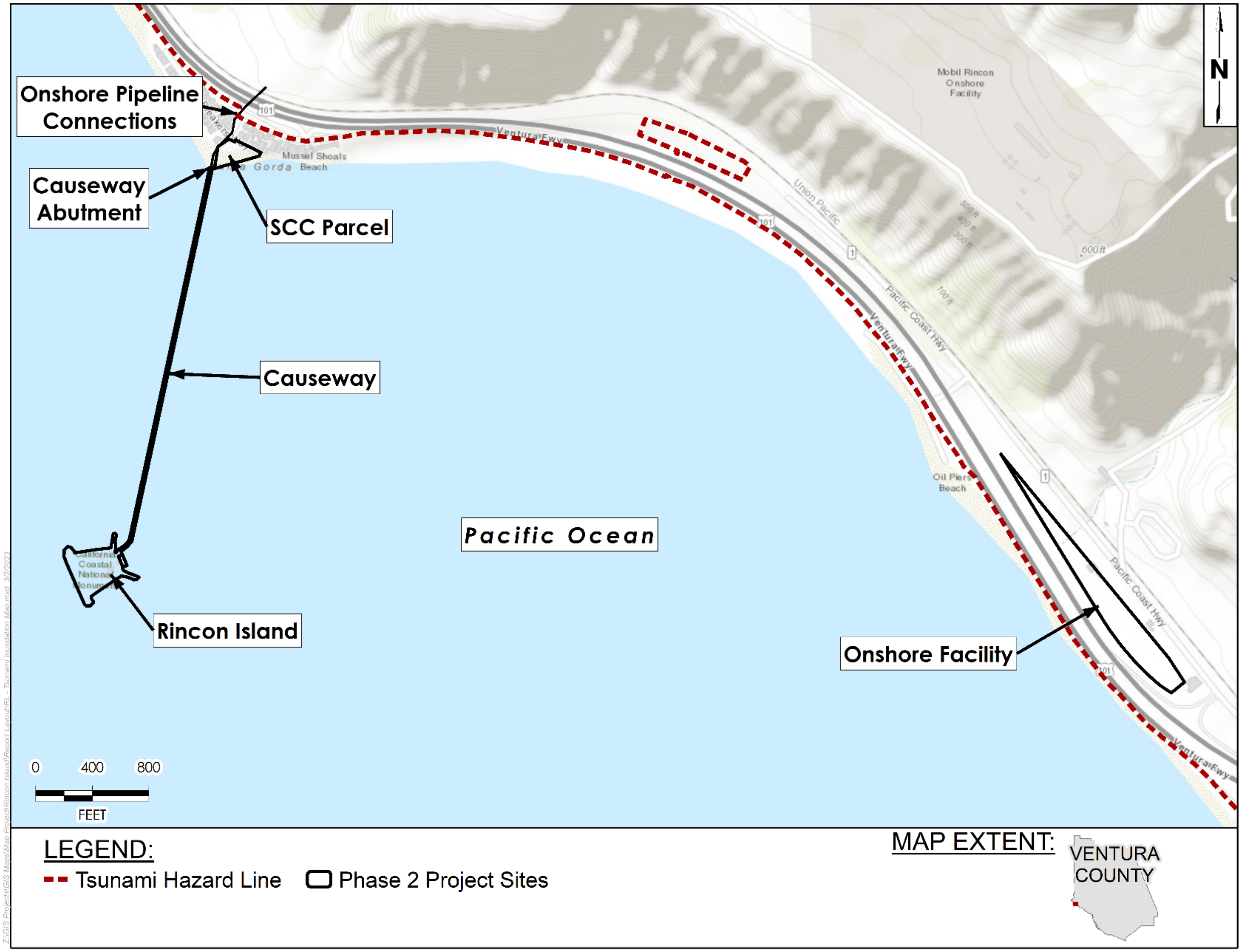
Liquefaction. Liquefaction is a form of earthquake-induced ground failure that occurs primarily in relatively shallow, loose, granular, water-saturated soils. Liquefaction is defined as the transformation of a granular material from a solid state into a liquefied state as a consequence of increased pore pressure, which results in the loss of grain-to-grain contact. Unconsolidated silts, sands, and silty sands are most susceptible to liquefaction. While almost any saturated granular soil can develop increased pore water pressures when shaken, these excess pore water pressures can lead to liquefaction if the intensity and duration of earthquake shaking are great enough. During recent large earthquakes where liquefaction occurred, structures that appeared to be most vulnerable to liquefaction included buildings with shallow foundations, railways, buried structures, retaining walls, port structures, utility poles, and towers.

The SCC Parcel, OPC, and Onshore Facility are located within liquefaction zones, which are zones that have a potential for liquefaction or permanent ground displacement due to geological, geotechnical, and ground water conditions. The entire County of Ventura is susceptible to liquefaction; however, the onshore Project sites (SCC Parcel, OPC, and Onshore Facility) are not located within the vicinity of the Santa Clara River or the Oxnard Plain, which are the areas that are most vulnerable to liquefaction (Ventura County 2020). Low coastal terraces could be subject to liquefaction where groundwater is less than 15 feet from the surface (Ventura County 2020). Areas of beach sand could have a high liquefaction potential due to unconsolidated sand layers below the water table at shallow depths. During ground shaking, loose saturated soils and beach sands can undergo liquefaction, and differential settlement of buildings and structures can occur.

Subsidence. Subsidence is a type of ground failure, defined as settlement or compression of subsurface soils following the loss of interstitial materials such as water or gas. Subsidence can also result from wetting of collapsible soils, typically loose deposits of silt or sand. Subsidence can occur over a broad region or in localized areas and can occur gradually over time or as a sudden collapse. The loss of interstitial material can result from shaking of the soil mass during an earthquake, or it can result from other non-seismic factors such as the extraction of oil and gas reserves. Groundwater depletion in some of Ventura County's groundwater basins has increased the risk of subsidence in some areas; however, the onshore Project sites (SCC Parcel, OPC, and Onshore Facility) are not at high risk of subsidence (Ventura County 2020). The NRCS has classified the soil in the vicinity of the SCC Parcel, OPC, and Onshore Facility as mineral soil, which does not subside (NRCS 2022).

Tsunamis. Tsunamis are large ocean waves generated by large-scale, short duration submarine earthquakes, volcanic activity, and submarine landslides. Areas most susceptible to the effects of a tsunami would be Rincon Island and along the oceanfront of the Project sites (CGS and the California Governor's Office of Emergency Services 2022). As shown on Figure 4.6-2, tsunamis could occur within the Project sites where elevations are less than 30 feet above mean sea level (Ventura County 2020). Tsunamis affecting the Project sites can also be generated by distant earthquakes or seismic events on any moderate offshore fault. Rincon Island and the causeway, located offshore of Punta Gorda, and the SCC Parcel, located on the southeast side of Punta Gorda, are considered Phase 3 Evacuation areas, which estimates a tsunami flood level of 7.7 feet to 11 feet above low tide conditions, and a tsunami flood level of 1.7 feet to 5.0 feet above the high tide line. Historical records note that there has been a total of eight tsunami events recorded in Ventura County between the period of 1812 to 2023, including the tsunami resulting from the March 2011 earthquake that occurred in Japan. The largest tsunami event in Ventura County occurred in 1812 and reached heights of approximately 6.5 feet above sea level (Ventura County 2020).

Figure 4.6-2. Tsunami Inundation Map for Project Sites



4.6.1.5 Coastal Processes

Wave Climate and Exposure

Rincon Island is only exposed to ocean waves coming from the southeast, clockwise to approximately the west, and the offshore Channel Islands provide further sheltering from waves approaching within the Island's exposure angle (NV5 2021). Rincon Island was constructed in a way that optimizes the protection from wave action. Since 96 percent of the waves approach the island from the southwest or west, only the seaward southwest side of the Island is subject to large ocean wave action, while the other three sides are mainly subject to waves generated by local wind. The southwest side of Rincon Island is also the side with the largest tetrapod barrier.

Although Rincon Island provides a certain wave sheltering effect, the SCC Parcel is located within an area that experiences significant wave action and exposure, as evidenced by the eroding shoreline (see Figure 2-10) which has been impacted by large storm waves at very high tides, as further discussed below. For information related to potential impacts from extreme wave action due to SLR, please refer to Section 7.1, Climate Change and Sea Level Rise.

Erosion and Scour

Erosion of exposed soils and rocks along coastal bluffs, and in gullies and creeks, naturally occurs due to physical weathering and ongoing coastal processes. Scour can be considered an aggressive form of water erosion where earth materials are removed from gullies and creeks, as well as in areas where the sea cliff is exposed to wave action. Erosion and scour, while ongoing and naturally occurring in a beach environment, can be worsened by human-induced changes including changes to topography, addition of structures, roads, and artificial fill, or other disturbances to the existing natural setting. A net increase in removal of mass, including soil, sediment (e.g., beach sand), cobbles and bedrock, can occur in areas of increased scour.

According to the Ventura County General Plan, Coastal Area Plan (2021), the North Coast beaches are highly vulnerable to erosion and wave damage. Ventura County is also subject to erosion associated with SLR. A discussion of SLR is provided in Section 7.1, Climate Change and Sea Level Rise. The coastal area of Punta Gorda exhibits seasonal fluctuations in the amount of sand that is deposited and eroded from the beach. The California Department of Navigation and Ocean Development (now referred to as the Division of Boating and Waterways) noted the area to be "Present Use Critical," which means that existing shoreline facilities are subject to erosion from wave action.

Rincon Island and the Causeway

Rincon Island is connected to the shoreline by the causeway. Scour canyons are features typically found offshore below piers whose pilings are of large diameter and closely spaced. Detailed bathymetric data from the offshore Project site shows no evidence of a "scour canyon" underneath the causeway between the shoreline and Rincon Island (Coastal Frontiers Corporation and Surfbreak Engineering Sciences, Inc 2023). This is because the pilings that support the causeway have a small diameter and are widely spaced.

SCC Parcel

In a 2014 study, it was determined that the SCC Parcel had been eroded in recent years, and it was identified within a California Beach Erosion Assessment Survey performed by the California Sediment Work Group in 2010 as a beach erosion concern area (Everest 2014). In a more recent study (Griggs 2022 [Appendix G2]) a review of historical photographs dating back to 1927 indicates that the SCC Parcel shoreline has eroded landward since 1927 and no longer extends as far out as the rock outcrop making up the end of Punta Gorda. By 1963, the shoreline next to the causeway abutment had retreated a total of about 160 feet. Throughout the years, various shoreline armoring has been placed in this area (see Figure 4.6-4 below showing riprap placed along the entire shoreline prior to 1971). By 1993, some of this riprap appears to have spread or collapsed onto the beach and the bluff edge eroded back, narrowing the flat upper portion of the parcel. High resolution aerial photographs along the coastline from 2002 to present indicate that the gap between the causeway revetment and downcoast riprap is where erosion of the bluff has continued. A field investigation in October 2022 confirmed that the near vertical eroding bluff backing the shoreline is about 8 feet high and consists of a mixture of poorly sorted material which is believed to be alluvial fan material brought to the shoreline from inland drainage over thousands of years. This material is only loosely consolidated so has eroded easily when impacted by large storm waves at very high tides. The bluff is fronted by a low cobble berm and nearshore shallow reef that provides some protection from wave attack. In summary, the shoreline within the SCC Parcel remains susceptible to beach scour from wave reflection or continuous erosion. The low coastal bluff, abutting the rocky shoreline within the SCC Parcel, is susceptible to erosion from wave action during high tide (Griggs 2022).

Beach Width and Sediment Transport

Wave action is the primary mechanism behind sediment deposition along the coast. Along the shoreline of the Rincon Island causeway abutment and SCC Parcel Project sites, sand moves both onshore and offshore seasonally, creating wider and higher beaches during the summer months and lower and narrower beaches during the winter months. Littoral drift is the alongshore (parallel) movement of sand. The Central California coast can be divided into different littoral cells, which are self-contained systems where sand is input into the system from river and stream discharge or from cliff and bluff erosion. Wave action creates littoral drift downcoast through littoral cells. Sand is then deposited onshore by wind or transported offshore into a submarine canyon (Griggs 2022).

The Rincon Island causeway abutment and the SCC Parcel are located in the middle of the 144-mile-long Santa Barbara littoral cell, which deposits littoral sand on the coast in the area of these Project sites. An estimated 300,000 cubic yards per year (yds^3/year) of littoral sand is transported downcoast through the littoral cell. Sediment is trapped to form a long beach upcoast from Punta Gorda because of the presence of the wave resistant outcrop of Pico Formation bedrock along the shoreline at Punta Gorda, and the presence of an alluvial fan delta, where sediment is deposited from the large drainage northeast of the Project sites. Historical aerial photographs show the width of the beach directly upcoast from Punta Gorda ranges from approximately 50- to 150-feet wide and increases to approximately 230- to 400-feet wide approaching Punta Gorda (Griggs 2022).

Coastal Bluff Instability, Slope Failure, and Landslides

Because the SCC Parcel includes a low coastal bluff approximately 8 feet high, the potential exists for slope failure and minor landslides (sloughing) to occur during Project implementation. The stability of the bluff is affected by gravity, coastal processes, soil type, geologic structure, amount of water present, and amount of vegetation present. According to the Ventura County General Plan, Coastal Area Plan, the nearshore areas of the Project with slopes greater than 25 percent are most susceptible to severe landslides and mass earth movement. During winter storms of 1978 and 1980, slides closed the North Coast northbound segment of Highway 101. However, work activities at the SCC Parcel would address any bluff instability along the shoreline by project design to include a more gradual slope and finished grade.

The OPC Project site and Onshore Facility are located approximately 2 miles southeast of the coastal community of La Conchita, which was built below a bluff and has experienced some of the most damaging, non-earthquake-induced landslides in Ventura County. The historical landslides of 1995 and 2005 occurred after periods of intense rainfall, which saturated the hillslopes and mobilized the earth material (Ventura County 2020). Proposed Project activities at the OPC and Onshore Facility Project sites do not include the construction of any structures that would be affected by landslides.

4.6.1.6 Paleontological Resources

Paleontological resources are commonly found in sedimentary rock units. The boundaries of sedimentary rock units generally define the limits of paleontological sensitivity in a given region. Paleontological sites are normally discovered in cliffs, ledges, steep gullies, or along wave-cut terraces where vertical rock sections are exposed. Fossil material may also be exposed by a trench, ditch, or channel created by construction.

According to the Ventura County General Plan, the Ventura County coastal zones contain extensive fossil sites where "type" specimen, which are used as the exemplary specimen to compare to other finds of the same animal, are found. The Onshore Facility is underlain by upper Pliocene marine sedimentary rocks referred to in the Ventura Basin as the Pico Formation, which is composed of siltstone, sandstone, and conglomerate. According to the Ventura County Initial Study Assessment Guidelines, Paleontological Resources section, deposits within the Pico Formation (Pliocene age) have a moderate to high potential for paleontological importance (Ventura County 2011).

4.6.2 Regulatory Setting

Federal and state laws, regulations, and policies that pertain to the proposed Project including CCA Chapter 3, Sections 30235 and 30253, are discussed in Appendix B. Local laws, regulations, and policies are summarized below.

4.6.2.1 Local

<u>Ventura County 2040 General Plan (2020)</u>

<u>Conservation and Open Space Element</u>

Policies included within the Ventura County 2040 General Plan Conservation and Open Space Element (Ventura County 2020) include the following related to the protection of geology and coastal processes:

- **Policy COS-1.6: Discretionary Development on Hillsides and Slopes.** The County shall require discretionary development on hillsides and slopes, which have an average natural slope of 20 percent or greater in the area where the proposed development would occur, to be sited and designed in a manner that will minimize grading, alteration of natural landforms, and vegetation removal to avoid significant impacts to sensitive biological resources to the extent feasible.
- **Policy COS-2.1: Beach Erosion.** The County shall strive to minimize the risk from the damaging effects of coastal wave hazards and beach erosion and reduce the rate of beach erosion, when feasible.
- **Policy COS-2.2: Beach Nourishment.** The County shall support activities that trap or add sand through beach nourishment, dune restoration, and other adaptation strategies to enhance or create beaches in areas susceptible to sea level rise and coastal flooding.
- **Policy COS-4.4: Discretionary Development and Tribal, Cultural, Historical, Paleontological, and Archaeological Resources Preservation**. The County shall require that all discretionary development projects be assessed for potential tribal, cultural, historical, paleontological, and archaeological resources by a qualified professional and shall be designed to protect existing resources. Whenever possible, significant impacts shall be reduced to a less-than-significant level through the application of mitigation and/or extraction of maximum recoverable data. Priority shall be given to measures that avoid resources.
- **Policy COS-5.1: Soil Protection.** The County shall strive to protect soil resources from erosion, contamination, and other effects that substantially reduce their value or lead to the creation of hazards.
- **Policy COS-5.2: Erosion Control.** The County shall encourage the planting of vegetation on soils exposed by grading activities, not related to agricultural production, to decrease soil erosion.

<u>Hazards and Safety Element</u>

Policies included within the Ventura County 2040 General Plan Hazards and Safety Element (Ventura County 2020) include the following policies related to the protection of geology and coastal processes:

- **Policy HAZ-2.8: Natural Flood Protection Solutions.** The County shall consider natural, or nature-based flood protection measures for discretionary development or County-initiated development, when feasible.
- **Policy HAZ-4.5: Soil Erosion and Pollution Prevention**. The County shall require discretionary development be designed to prevent soil erosion and downstream sedimentation and pollution.
- **Policy HAZ-4.6: Vegetative Resource Protection**. The County shall require discretionary development to minimize the removal of vegetation to protect against soil erosion, rockslides, and landslides.
- **Policy HAZ-4.7: Temporary Revegetation on Graded Areas**. The County shall require, as necessary, the use of soil stabilization methods on graded areas to reduce the potential for erosion, particularly during the construction phase.
- **Policy HAZ-4.10: Development in Landslide/Debris Flow Hazard Areas.** The County shall not allow development in mapped landslide/debris flow hazard areas unless a geologic and geotechnical engineering investigation is performed and appropriate and sufficient safeguards, based on this investigation, are incorporated into the project design.
- **Policy HAZ-4.11: Alteration of Land in Landslide/Debris Flow Hazard Areas.** The County shall not allow alteration of land in landslide/debris flow hazard areas, including concentration of water through drainage, irrigation or septic systems, removal of vegetative cover, and undercutting of the bases of slopes or other grading activity unless demonstrated by geologic, geotechnical, and civil engineering analysis that the project will not increase the landslide/debris flow hazard.

<u>Ventura County Coastal Area Plan</u>

The Ventura County 2040 General Plan (2020), Coastal Area Plan (Last Amended 2021) was prepared in accordance with the CCA and established goals for future activity in the coastal zone. The policies that reflect these goals applicable to the Phase 2 components are included below:

- **Paleontology: Policy 1**. Discretionary development shall be reviewed to determine the geologic unit(s) to be impacted and paleontological significance of the geologic rock units containing them.
- **Paleontology: Policy 2.** New development shall be sited and designed to avoid adverse impacts to paleontological resources to the maximum

extent feasible. If there is no feasible alternative that can eliminate all impacts to paleontological resources, then the alternative that would result in the fewest or least significant impacts to resources shall be selected. Impacts to paleontological resources that cannot be avoided through siting and design alternatives shall be mitigated. When impacts to paleontological resources cannot be avoided, mitigation shall be required that includes procedures for monitoring grading and handling fossil discoveries that may occur during development.

- **Paleontology: Policy 3.** Protect and preserve paleontological resources from destruction, and avoid impacts to such resources where feasible.
- **Paleontology: Policy 4.** The unauthorized collection of paleontological artifacts is prohibited.
- **Hazards: Policy 3.** New development shall be sited and designed to minimize risks to life and property in areas of high geologic, flood, and fire hazards.
- **Hazards: Policy 4.** All new development will be evaluated for its impacts to, and from, geologic hazards (including seismic safety, landslides, expansive soils, subsidence, etc.), flood hazards, and fire hazards. Feasible mitigation measures shall be required where necessary.
- **Hazards: Policy 5.** The County may require the preparation of a geologic report at the applicant's expense. Such report shall include feasible mitigation measures which will be used in the proposed development.
- **Beach Erosion: Policy 1.** Proposed shoreline protective devices will only be approved and/or located in conformance with Coastal Act Sections 30235 and 30253.
- **Beach Erosion: Policy 2.** All shoreline protective structures which alter natural shoreline processes will be designed to eliminate or mitigate adverse impacts on local shoreline sand supply.

4.6.3 Significance Criteria

In accordance with the Ventura County Initial Study Assessment Guidelines (2010) and derived from Appendix G of the State CEQA Guidelines, impacts to geology and coastal processes are considered significant if any of the following conditions apply:

- The project is located within a State of California designated Alquist-Priolo Special Fault Study Zone or County of Ventura designated Fault Hazard Area
- The project has the potential to expose people or other structures to potential significant adverse effects, including the risk of loss, injury, or death involving ground shaking hazards
- Ground motion due to a seismic event that could include surface rupture, liquefaction, subsidence, landslides or tsunami and damage to structural components
- Result in substantial soil erosion or the loss of topsoil
- Unstable soils which result from Project implementation and cause landslide, slope failure, lateral spreading, subsidence, liquefaction, or collapse
- Damage of structural components as a result of soil expansion
- Soil settling that could damage structural components of the remaining structures
- Deterioration of structural components due to weathering, fatigue, or erosion that could reduce structural stability
- Erosion-induced siltation of nearby waterways as a result of ground disturbing activities
- Result in an adverse impact to a unique paleontological resource or geologic feature

4.6.4 Impact Analysis and Mitigation

The proposed Project was evaluated to identify potential geologic hazards that could result in impacts to people or structures due to Project implementation. A qualitative evaluation of potential impacts was conducted based on the site-specific information described in Section 4.6.1, Environmental Setting. Additional information can be found within the geologic studies prepared on behalf of the Project included in Appendices G and H.

Although the onshore Project sites are located within an area that has been identified as having a high potential for liquefaction or susceptibility to compaction, as well as within some areas that have experienced slope failure and landslides, the Project focus is decommissioning of structures and there are few components that would be subject to these hazards in the long-term. The only exception is the proposed stairway that would be placed on the eastern boundary of the SCC Parcel, and would need to be designed with respect to coastal processes (placement in the dynamic marine environment) and to account for shoreline settlement or liquefaction.

The remaining potential for impacts related to geology and coastal processes would be primarily associated with a temporary increase in surface erosion during decommissioning and soil remediation activities, as well as coastal process-related hazards including localized erosion and changes to littoral transport resulting from the proposed decommissioning activities as further discussed below. In addition, there is a moderate to high potential for paleontological resources to be present on the Onshore Facility site. Although proposed Project activities would primarily occur in previously disturbed soils, a discussion of potential impacts to paleontological resources is also included below.

Impact GEO-1: Temporary Increase in Surface Erosion During Decommissioning and Soil Remediation Activities

Project decommissioning activities would require temporary disturbance to existing soils that would have the potential to result in a loss of soil stability and an increase in localized turbidity **(Less Than Significant with Mitigation)**

Impact Discussion

Rincon Island

Decommissioning activities at Rincon Island, including removal of structures, concrete and asphalt pavement removal, and excavation of contaminated soil and interstitial water, have the potential to temporarily increase surface erosion onsite for approximately 15 months. As such, incorporation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1** would be required to mitigate the potential for surface erosion. Following completion of activities, the Rincon Island Project site would be backfilled and recompacted. With implementation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1,** the impact would be less than significant.

<u>Public Facilities Retention Option</u>

The public facilities retention option would include retention of subsurface infrastructure at Rincon Island, which would slightly reduce the area required for excavation and backfill. Regardless, decommissioning activities have the potential to temporarily increase surface erosion onsite for approximately 15 months. With implementation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1,** the impact would be less than significant.

SCC Parcel

Option 1: Native Revegetation and Access Improvements

Option 1 activities at the SCC Parcel would have the potential to temporarily increase surface erosion. Although native revegetation would be completed by hand, a portion of the site would be left bare prior to replanting with native plants. Additionally, trails would be improved to facilitate access. Removal of coastal hazards and installation of an access stairway would also require excavation, with the volume dependent upon what time of the year activities are conducted and the final design premise. As part of the proposed activities, native vegetation would be replanted and maintained in order to prevent soil erosion from occurring. Additionally, incorporation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1** would be required to mitigate the potential for surface erosion during the anticipated 2-week timeframe for Option 1 activities. With implementation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1,** the impact would be less than significant.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

In addition to the activities outlined for Option 1, Option 2 would also require installation of a cobble back berm at the SCC Parcel. This activity would necessitate soil excavation and temporary removal of the vegetation on the back portion of the parcel in order to install approximately 2,500 cubic yards of cobble back berm material. Construction activities are anticipated to require approximately 1 month and would have the potential to increase onsite erosion. Following installation, the original soil layer and vegetation would be replaced with new native plants. Additionally, incorporation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1** would be required to mitigate the potential for surface erosion. With implementation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1,** the impact would be less than significant.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

In addition to the activities outlined for Option 1, Option 3 would also require installation of approximately 360 cubic yards of riprap along the shoreline boundary of the parcel. Construction activities are anticipated to require approximately 25 workdays (5 weeks) and would have the potential to increase onsite erosion. However, incorporation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1** would be required to mitigate the potential for surface erosion. With implementation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1,** the impact would be less than significant.

Onshore Pipeline Connections

Decommissioning activities at the OPC do not require any excavation that would increase the potential for surface erosion. No impact would result.

Onshore Facility

Installation of the steel sheet pile wall prior to initiation of construction would be accomplished utilizing a vibratory hammer, and no excavation would be required that would have the potential to cause an increase in surface erosion onsite. However, a discussion of the potential for erosion to occur during construction and remediation activities for Options 1 through 5 is provided below.

<u>Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation</u>

Placement of additional asphalt cap material would not require excavation. The remediation methodology included within Option 1 would not require any significant surface excavation or disturbance, as it would only be limited to subsurface injection of bioremediation agents. A less than significant impact would result.

<u>Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation</u>

Option 2 at the Onshore Facility would require approximately 7,500 cubic yards of disturbance (within an area of approximately 0.48 acre). Remediation activities are anticipated to be conducted over approximately 45 workdays (9 weeks). During this time, heavy equipment usage and associated truck trips for hauling soil would have the potential to contribute to surface erosion onsite. As such, incorporation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1** would be required to mitigate the potential for surface erosion. Following completion of activities, the Onshore Facility Project site would be backfilled and recompacted. With implementation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1,** the impact would be less than significant.

<u>Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation</u>

Like Option 2, remediation of soil contamination under Option 3 would include approximately 7,500 cubic yards of disturbance (within an area of approximately 0.48 acre). Remediation activities are anticipated to be conducted over approximately 57 workdays (12 weeks). Initially, heavy equipment usage within the excavation area would have the potential to contribute to surface erosion onsite. Additionally, instead of hauling offsite for disposal, soil would be treated onsite. This would require use of an excavator or other heavy equipment onsite one day per week for approximately 72 months (6 years) to achieve the required cleanup goals. Active management of the soil treatment area would have a greater potential to contribute to soil erosion at the Onshore Facility. Incorporation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1** would be required to mitigate the potential for surface erosion. Following completion of activities, the Onshore Facility Project site would be backfilled with the remediated soil and recompacted. With implementation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1,** the impact would be less than significant.

<u>Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation</u>

Option 4 would require use of heavy equipment onsite for approximately 55 workdays (11 weeks) to add a cement mixture to the existing contaminated soil onsite. During this time, incorporation of material into the soil with heavy equipment would have the potential to contribute to surface erosion onsite. Additionally, approximately 10 workdays (2 weeks) would be required to complete in-situ groundwater bioremediation activities. Incorporation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1** would be required to mitigate the potential for surface erosion. Following completion of Option 4, the excavation area would be solidified and no longer able to contribute to onsite erosion. With implementation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1,** the impact would be less than significant.

<u>Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation</u>

Option 5 at the Onshore Facility is similar to Option 2 discussed above, but would only require approximately 800 cubic yards of disturbance within several small areas totaling approximately 0.12 acre. Remediation activities are anticipated to be conducted over approximately 25 workdays (5 weeks). Additionally, approximately 10 workdays over 2 weeks would be required to complete in-situ groundwater bioremediation activities. During this time, heavy equipment usage and associated truck trips for hauling soil would have the potential to contribute to surface erosion onsite. As such, incorporation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1** would be required to mitigate the potential for surface erosion. Following completion of activities, the Onshore Facility Project site would be backfilled and recompacted. With implementation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1,** the impact would be less than significant.

Mitigation Measures

MM GEO-1: Grading and Erosion Control Plan. CSLC and the Project contractor shall develop a Grading and Erosion Control Plan that shall include measures intended to reduce the potential for surface erosion to occur. These measures shall be consistent with those outlined in **MM AQ-1** regarding fugitive dust control and may also include, but not be limited to, best management practices (BMPs) such as installation of silt barriers at the perimeter of the Project work area and rumble strips at worksite entrances to reduce tracking of loose soils onto adjacent roadways. The Grading and Erosion Control Plan shall be submitted to the Ventura County Building and Safety and Planning Divisions for review and approval at least 60 days prior to Project implementation.

MM AQ-1: Standard Ventura County Air Pollution Control District Construction Emissions Reduction Measures (Fugitive Dust Control), (see Section 4.2.4, Air Quality)

MM HWQ-1: Storm Water Pollution Prevention Plan, (see Section 4.9.4, Hydrology and Water Quality)

Impact GEO-2: Paleontological Resources

Decommissioning activities at the Onshore Facility Project site would have the potential to disrupt native soils that are designated as moderate to high in terms of paleontological sensitivity **(Less than Significant with Mitigation)**

Rincon Island, the SCC Parcel, and the OPC do not contain geologic formation rocks that would have the potential for paleontological resources. As such, the discussion below is focused on the Onshore Facility and its potential for paleontological resources.

Impact Discussion

Installation of the steel sheet pile wall prior to initiation of construction would be accomplished utilizing a vibratory hammer, and no excavation would be required that would have the potential to disrupt native soils or paleontological resources. However, a discussion of potential ground disturbance during construction and remediation activities for Options 1 through 5 is provided below.

<u>Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation</u>

Option 1 does not include excavation that would have the potential to disrupt native soils that are designated as moderate to high in terms of paleontological sensitivity. No impact would result.

<u>Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation</u>

The Onshore Facility is underlain by upper Pliocene marine sedimentary rocks, referred to in the Ventura Basin as the Pico Formation, that are characterized within the Ventura County Initial Study Guidelines as having a moderate to high potential for paleontological importance (Ventura County 2011). Although the Onshore Facility is located within an area that includes a large amount of fill, excavation of contaminated material under Option 2 may occur at depths that would have the potential to encounter native soils and related paleontological resources (if present). The depth of excavation required to remediate soils would be determined through direction from Ventura County and the Los Angeles Regional Water Quality Control Board (LARWQCB). With implementation of **MM GEO-2**, the impact would be less than significant.

Mitigation Measure

MM GEO-2: Paleontological Monitoring and Mitigation Plan. Prior to issuance of grading permits for the Project from the County of Ventura, CSLC shall prepare a Paleontological Monitoring and Mitigation Plan to preserve and protect any fossil resources that may be uncovered during deep excavations at the Onshore Facility. The

Plan shall be prepared by a paleontologist who meets professional qualification standards. The Plan shall include, at a minimum:

- A worker education program that shall be provided to all Project personnel who may encounter paleontological resources, including construction supervisors and field personnel
- Provisions for paleontological monitoring during all excavation greater than 5 feet deep
- Specifications for stop work and proposed buffers in the event that fossils are encountered
- Descriptions of how salvage and preservation shall be conducted if fossils are encountered
- Standards for recording fossil localities in the field, analyzing and preparing recovered remains in the laboratory, and reporting results
- Health and safety procedures to be implemented by monitors during work at the Project sites
- A curation agreement with qualified repositories for scientific research and public education

Monitoring shall entail the visual inspection of excavated or graded areas and trench sidewalls. In the event that a paleontological resource is discovered, the monitor shall have the authority to temporarily divert the construction equipment around the find until it is assessed for scientific significance and collected, if appropriate. Monitoring efforts may be reduced or eliminated at the discretion of the onsite paleontologist if, after 50 percent of the excavations are completed, no fossil resources are encountered.

<u>Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation</u>

The excavation area required under Option 3 would be the same as Option 2, therefore excavation may occur at depths that would have the potential to encounter native soils and related paleontological resources (if present). With the implementation of **MM GEO-2**, the impact would be less than significant.

<u>Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation</u>

Option 4 does not include excavation at a depth that would have the potential to disrupt native soils that are designated as moderate to high in terms of paleontological sensitivity. No impact would result.

Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation

Option 5 includes localized excavation to a depth of approximately 3 feet below ground surface. Given the documented volume of fill present onsite, it is not anticipated that Option 5 would occur at depths including native soils that would have the potential for paleontological resources (if present). A less than significant impact would result.

Impact GEO-3: Geologic Hazards and Wave Exposure

The proposed Project would leave Rincon Island and the causeway in place, and install components as part of the SCC Parcel improvements that would be subject to long-term geological hazards and wave exposure **(Less than Significant).**

Impact Discussion

Rincon Island

The Rincon Island Project site is located within the seismically active Transverse Ranges geomorphic province. The closest active fault to the Rincon Island Project site is the Red Mountain Fault located approximately 0.75 mile north of the causeway entrance. The Red Mountain Fault has been identified as an Alquist Priolo special study zone that has an associated maximum magnitude of 7.4 on the Richter scale. The presence of this active fault zone would have the potential to result in seismic shaking and related geologic hazards, as well as a resulting tsunami that could affect the remaining components of Rincon Island and the causeway.

As noted in a Coastal Engineering Study (NV5 2021), Rincon Island was developed with an unusual shape in order to optimize wave protection. The existing seaside armor on the Island is capable of withstanding a 3.5-year storm from the Pacific Ocean, but it may sustain damages and show considerable distress under attack waves appreciably larger than a 3.5-year storm event. On the other hand, the historical extreme storms that occurred in the past 60 years do not appear to have endangered the Island. This indicates that Rincon Island may remain in place even when subject to rare occurrences of very large storm or wave events. Conversely, the causeway has deteriorated over time and has historically required multiple repairs. The causeway would remain vulnerable to the effects of seismic shaking, coastal storms, or tsunamis.

However, in accordance with CEQA, Project analysis should address the potential impacts of the Project on the environment, not the potential impacts of the environment on the Project. As stated by the California Supreme Court, "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users." (California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal. 4th 369, 386 (CBIA)). The proposed Project activities would not exacerbate existing geological conditions, the potential for seismic ground shaking, or increase the intensity of coastal storms and associated wave exposure. This analysis therefore does not evaluate existing environmental risks that could affect the Project because the Project would not exacerbate them, consistent with the Court's ruling in CBIA. As Rincon Island and the causeway structures would not be modified, no impact would result.

<u>Public Facilities Retention Option</u>

The public facilities retention option would include retention of subsurface infrastructure at Rincon Island. In accordance with the discussion above, no impact would result.

SCC Parcel

<u>Option 1: Native Revegetation and Access Improvements</u>

The SCC Parcel Project site is located within the seismically active Transverse Ranges geomorphic province. As the SCC Parcel is adjacent to the east of Rincon Island and causeway, the closest active fault is also the Red Mountain Fault located approximately 0.75 mile to the north of the parcel, that has been identified as an Alquist Priolo special study zone. The presence of this active fault zone would have the potential to result in seismic shaking and related geologic hazards, as well as a resulting tsunami that could affect site improvements proposed at the SCC Parcel. Specifically, Option 1 includes installation of a bench and signage, and placement of an access stairway at the eastern end of the parcel, that could be damaged from seismic shaking, coastal storms, or tsunami.

However, in accordance with the precedent outlined above (CBIA), since the proposed Project activities would not exacerbate existing geological conditions, the potential for seismic ground shaking, or increase the intensity of coastal storms, this analysis therefore does not evaluate existing environmental risks that could affect the Project because the Project would not exacerbate them, consistent with the Court's ruling in CBIA. Therefore, the impact would be less than significant.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

In addition to the site improvements proposed as part of Option 1, Option 2 would also include installation of a cobble back berm. Placement of this substrate would be primarily subsurface. In accordance with the precedent outlined above (CBIA), Option 2 would not exacerbate existing geological conditions, the potential for seismic ground shaking, or increase the intensity of coastal storms. Therefore, the impact would be less than significant.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

In addition to the site improvements proposed as part of Option 1, Option 3 would also include installation of riprap along the SCC Parcel frontage. To the extent feasible, design and placement of this fortification would be done in consideration of potential effects of seismic shaking, coastal storms, or tsunami (if selected, through coastal engineering and design). In accordance with the precedent outlined above (CBIA), Option 3 would not exacerbate existing geological conditions, the potential for seismic ground shaking, or increase the intensity of coastal storms. Therefore, the impact would be less than significant.

Onshore Pipeline Connections

The OPC Project site is located within the seismically active Transverse Ranges geomorphic province, and approximately 0.5 mile from the active Red Mountain Fault and Alquist Priolo special study zone. However, following decommissioning activities, no pipeline segments would remain that would be subject to geologic hazards. Additionally, in accordance with the precedent outlined above (CBIA), since the remaining subsurface vault structure would not exacerbate existing geological conditions, the potential for seismic ground shaking, or increase the intensity of coastal storms, impact would be less than significant.

Onshore Facility

Options 1 through 5

The Onshore Facility Project site is also located within the seismically active Transverse Ranges geomorphic province, and approximately 0.75 mile from the active Red Mountain Fault and Alquist Priolo special study zone. The presence of this active fault zone would have the potential to result in seismic shaking and related geologic hazards. Options 1 through 5 at the Onshore Facility are limited to periodic construction activities over a 2- to 6-year timeframe to achieve remediation goals. Excavation required for Option 2 or Option 3 is estimated to occur at depths of approximately 10 feet below ground surface or less, while excavation required for Option 5 would be limited to depths of 3 feet below ground surface. No permanent structures are proposed that would be subject to geologic hazards.

Options 1 through 5 at the Onshore Facility would not exacerbate existing geological conditions, the potential for seismic ground shaking, or increase the intensity of coastal storms. Therefore, the impact would be less than significant.

Mitigation Measures

None required.

Impact GEO-4: Shoreline Stability and Littoral Transport

Proposed Project activities at the SCC Parcel would result in long-term effects to shoreline erosion and littoral transport **(Less than Significant).**

Impact Discussion

There are no proposed Project activities at the OPC or Onshore Facility Project sites that would have the potential to affect shoreline stability and littoral transport, therefore the discussion below is limited to Rincon Island and the causeway and SCC Parcel Project sites.

Rincon Island

As noted in the original Coastal Engineering Study (NV5 2021) conducted for the Project's Feasibility Study, Rincon Island provides an appreciable wave-sheltering effect for the nearshore region behind (leeside of) the Island. Further, the Coastal Engineering Study concluded that removal of Rincon Island would permanently increase the wave height and thus intensify the wave energy in the coastal area behind the Island and leading into shore. Similarly, complete removal would result in a permanent increase in alongshore sediment transport by up to 60 percent in the area just downcoast (east) and offshore of the Mussel Shoals community (actual conditions dependent upon sediment transport capacity and influx), that may cause a long-term retreat of the beach and increase the magnitude of seasonal beach variation in this area (noting that this would not likely impact the stability of riprap or cause additional erosion for the shoreline that has already been armored with revetments adjacent to the Mussel Shoals community). As such, retention of Rincon Island as part of the proposed Project would continue to contribute to shoreline stability and transport through sheltering this portion of coastline from waves and resulting erosion; therefore, no impact would result.

SCC Parcel

Option 1: Native Revegetation and Access Improvements

Option 1 would include removal of non-native plants within the back portion of the SCC Parcel and installation of native vegetation, as well as improvements to the existing informal access trails and facilities onsite (including installation of a staircase at the eastern end of the parcel to facilitate public access to the beach). These activities, particularly planting of native vegetation, would minimize erosion within the upland portion of the parcel once the plants are established. Since the parcel is already partially vegetated in this area (the project would be focused on replacement of non-natives), no significant changes to shoreline erosion along the bluff or change to littoral transport are anticipated. Similarly, the proposed staircase would be designed to provide access but would not extend enough into the shoreline that it would capture sand or affect downcoast movement of sediments (littoral transport). No impact would result.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

All of the improvements noted in Option 1 would be included in Option 2. Additionally, Option 2 includes installation of a cobble back berm, that is intended to further fortify the shoreline and provide erosion protection, which would protect existing public access points on the SCC Parcel and existing public access roads in the Mussel Shoals community, including the access road to Rincon Island, from additional erosion due to climate change. The cobble would be placed underground within the upland portion of the parcel but would gradually blend with the existing cobble base that is present along the shoreline providing safer public access to the beach as well as increased erosion protection.

Option 2 is intended to increase shoreline and bluff stability in front of the Mussel Shoals community, as the bluff has experienced a near vertical loss of sediment of up to 8-feet high along the eastern edge of the parcel (Figure 4.6-3).

Figure 4.6-3. View of Upper Portion of SCC Parcel and Bluff Erosion (2024)

Natural cobble beaches and cobble berms often form on high energy coasts where sand is mobilized and moved offshore in the winter months (Griggs 2022 [Appendix G2]). Severe winter scour on some sandy beaches may reveal an accumulation of cobbles at the base of the bluff which serves as a type of natural armor. The protective cobbles are much more resistant to beach scour than sand, which is lighter and more easily transported off the beach through wave action compared to the heavier cobble. Nature-based solutions, which leverage natural components and processes such as cobble and vegetated berms, are increasingly being employed along the coast to reduce erosion and improve coastal resilience to sea level rise. Unlike seawalls or riprap, a cobble blanket or berm is designed to allow wave action to rearrange the stones into an equilibrium profile, disrupting wave action and dissipating wave energy as the cobbles move. The Griggs study provides examples where a cobble berm was utilized for shoreline stabilization, the most notable being the installation of a cobble berm at Surfers Point in Ventura that was completed in 2011. The study concludes that "Based on the existence and behavior of natural cobble beaches and berms, observations and surveys of locations where cobble berms have been artificially built in California and Oregon, and also prototype experiments, it is clear that cobbles can provide and effectively enhance shoreline stability." Further, the study indicates that "the cobble berm should be relatively stable at this location as evidenced by the cobbles and boulders that have existed on the shoreline for many years. Even if the sand and soil covering was partially removed by an extreme wave event, as evidenced at Surfer's Point, the cobbles should rotate and move around, but overall should remain intact and provide a more stable shoreline." Therefore, placement of cobble could be beneficial to shoreline stability and would create a less than significant impact to littoral transport downcoast.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

All of the improvements noted in Option 1 would be included in Option 3. Additionally, Option 3 includes installation of approximately 360 cubic yards of riprap along the shoreline to replace riprap that was historically present at the site (installed prior to 1971) but moved offshore over time due to storms and tides (Figure 4.6-4). Option 3 is also intended to increase shoreline and bluff stability in front of the Mussel Shoals community.

Figure 4.6-4. Riprap Present Along SCC Parcel Shoreline (Photo From 1971, Riprap Placed Before This Time)

Riprap is a form of hard armoring that has commonly been used along the coast to reduce threats posed by flooding, erosion, and damage from wave energy. However, hard armoring approaches, such as riprap, have potential drawbacks, including high maintenance and repair costs, declining effectiveness over time, accelerated beach erosion, blockage of beach access, and visual and environmental impacts. Nature-based solutions are generally a preferred approach to shoreline stabilization, but in cases where critical infrastructure, such as the access roads, is at risk due to erosion or flooding, hard armoring may be necessary.

Based on the historical aerial photograph review, placement of rock or other armaments in this area has occurred periodically over the years. The resulting changes have not contributed to a significant difference in the volume of sand available for littoral transport to beaches downcoast, as the long-term average annual littoral draft of sand along the Rincon coast has remained consistent at approximately 300,000 yds^3 per year (Griggs, 2022). Therefore, placement of in-fill riprap could be beneficial to shoreline stability and would create a less than significant impact to littoral transport downcoast.

Mitigation Measures

None required.

4.6.5 Cumulative Impacts Analysis

Impact GEO-5: Cumulative Impacts to Geology and Coastal Processes

Project-related impacts to littoral transport may incrementally contribute to cumulative impacts to geology and coastal processes **(Less than Significant with Mitigation)**

Impact Discussion

The proposed Project decommissioning would include short-term construction activities that would have the potential for geologic impacts including erosion and sedimentation. These potential impacts would contribute to cumulative impacts from other construction projects along the coast, including the Chevron Decommissioning and Remediation of the Carpinteria Oil and Gas Processing Facilities project, and highway improvements ongoing within Ventura and Santa Barbara Counties that would also have the potential to contribute to erosion and sedimentation impacts. Additionally, if remediation activities were to occur at the Coast Ranch parcel at the same time as the proposed Project, and a remediation Project Option was selected that included excavation to achieve remediation goals, these additional work activities would have the potential to cumulatively contribute to erosion and sedimentation impacts onsite. However, with the implementation of **MM GEO-1**, **MM AQ-1**, and **MM HWQ-1,** the cumulative impact would be less than significant.

Mitigation Measures

MM GEO-1: Grading and Erosion Control Plan

MM AQ-1: Standard Ventura County Air Pollution Control District Construction Emissions Reduction Measures (Fugitive Dust Control), (see Section 4.2.4, Air Quality)

MM HWQ-1: Storm Water Pollution Prevention Plan (see Section 4.9.4, Hydrology and Water Quality)

4.6.6 Summary of Impacts and Proposed Mitigation Measures

Table 4.6-1. Summary of Geology and Coastal Processes

Impact	Mitigation Measures
Impact GEO-1: Temporary Increase in Surface Erosion During Decommissioning and Soil Remediation Activities	**MM GEO-1**: Grading and Erosion Control Plan **MM AQ-1**: Standard Ventura County Air Pollution Control District Construction Emissions Reduction Measures (Fugitive Dust Control) **MM HWQ-1**: Storm Water Pollution Prevention Plan
Impact GEO-2: Paleontological Resources	**MM GEO-2**: Paleontological Monitoring and Mitigation Plan
Impact GEO-3: Geologic Hazards and Wave Exposure	None Required
Impact GEO-4: Shoreline Stability and Littoral Transport	None Required
Impact GEO-5: Cumulative Impacts to Geology and Coastal Processes	**MM GEO-1**: Grading and Erosion Control Plan **MM AQ-1**: Standard Ventura County Air Pollution Control District Construction Emissions Reduction Measures (Fugitive Dust Control) **MM HWQ-1**: Storm Water Pollution Prevention Plan

4.7 GREENHOUSE GAS EMISSIONS

4.7.1 Environmental Setting

Climate change, often referred to as "global warming," is a global environmental issue that refers to any significant change in measures of climate, including temperature, precipitation, or wind. Climate change refers to variations from baseline conditions that extend for a period (decades or longer) of time and is a result of both natural factors, such as volcanic eruptions, and anthropogenic factors, based on human activity, including changes in land use and burning of fossil fuels. Anthropogenic activities such as deforestation and fossil fuel combustion emit heat-trapping greenhouses gases (GHG), defined as any gas that absorbs infrared radiation within the atmosphere.

2022 was the sixth warmest year on record based on global temperature data. The 2022 surface temperature was 1.55 degrees Fahrenheit (°F) warmer than the 20th-century average of 57.0 °F and 1.90 °F warmer than the pre-industrial period (1880-1900). The 10 warmest years in the historical record have all occurred since 2010.

GHG emissions are a global issue, as climate change is not a localized phenomenon. Eight recognized GHGs are described below. The first six are commonly analyzed for projects, while the last two are often excluded for reasons described below.

- **Carbon Dioxide (CO_2)**: natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic degassing; anthropogenic sources of CO_2 include burning fuels such as coal, oil, natural gas, and wood
- **Methane (CH_4)**: natural sources include wetlands, permafrost, oceans, and wildfires; anthropogenic sources include fossil fuel production, rice cultivation, biomass burning, animal husbandry (fermentation during manure management), and landfills
- **Nitrous Oxide (N_2O)**: natural sources include microbial processes in soil and water, including those reactions that occur in nitrogen-rich fertilizers; anthropogenic sources include industrial processes, fuel combustion, aerosol spray propellant, and use of racing fuels
- **Chlorofluorocarbons (CFCs)**: no natural sources; synthesized for use as refrigerants, aerosol propellants, and cleaning solvents

- **Hydrofluorocarbons (HFCs)**: no natural sources; synthesized for use in refrigeration, air conditioning, foam blowing, aerosols, and fire extinguishing
- **Sulfur Hexafluoride (SF_6)**: no natural sources; synthesized for use as an electrical insulator in high voltage equipment that transmits and distributes electricity (SF_6 has a long lifespan and high global warming potential)
- **Ozone**: unlike the other GHGs, ozone in the lower atmosphere is relatively short-lived, such that it does not accumulate. Therefore, ozone is not a climate concern. Due to the nature of ozone, and because this Project would not substantially contribute to lower atmosphere ozone levels, it is excluded from consideration in this analysis.
- **Water Vapor**: the most abundant and variable GHG in the atmosphere. It is not considered a pollutant and maintains a climate necessary for life. Because this Project is not anticipated to contribute significant levels of water vapor to the environment, it is excluded from consideration in this analysis.

The primary GHGs that would be emitted during proposed decommissioning activities are CO_2, CH_4, and N_2O. The Project is not expected to have any associated use or release of HFCs, CFCs, or SF_6.

Each of these gases emitted into the atmosphere has a different potential to contribute to global climate change. The global warming potential of these gases is quantified by comparison to CO_2, which is set at a reference value of 1. Methane has a longer life in the atmosphere and absorbs more energy than CO_2, therefore it has a higher global warming potential of 27.9 (i.e., 1 ton of methane has the same global warming potential as 27.9 tons of CO_2). Nitrous oxide has a global warming potential of 273, primarily because it may persist in the atmosphere for over 100 years. To account for different GHG global warming potentials, emissions are often quantified and reported as CO_2 equivalents (CO_2E).

Climate change is having and will continue to have widespread impacts on California's environment, water supply, energy consumption, public health, and economy. Many impacts already occur, including increased fires, floods, severe storms, and heat waves. Documented effects of climate change in California include increased average, maximum, and minimum temperatures; decreased spring runoff to the Sacramento River; shrinking glaciers in the Sierra Nevada; sea level rise at the Golden Gate Bridge and San Francisco Bay; warmer temperatures in Lake Tahoe, Mono Lake, and other major lakes; and plant and animal species found at changed elevations (Governor's Office of Planning and Research 2018a).

Globally, California leads in efforts to avoid the worst effects of climate change by reducing greenhouse gas emissions. Still, the impacts of climate change are already being felt in California and are disproportionately impacting the State's most vulnerable populations. The accelerating rate of climate change in this century will likely exceed that experienced by California's native peoples over past millennia. Already these changes have rendered our State's 117 years of weather-related record-keeping unreliable as predictors of future events. California's climate is changing, and responsible institutions must plan for and take action to address current and future climate impacts.

The California Natural Resources Agency's 2018 Update to the Safeguarding California Plan is a roadmap showing how California's state government is taking action to respond to climate change. It clearly lays out the next steps to achieve the State's goals and how those objectives will be achieved. Over 1,000 ongoing actions and next steps, organized by 76 policy recommendations across 11 policy sectors, were developed through the scientific and policy expertise of staff from 38 state agencies. The plan first describes overarching strategies recommended by the California Natural Resources Agency, the State's lead agency on climate change adaptation. The document then outlines ongoing actions and cost-effective and achievable next steps to make California more resilient to climate change. This roadmap serves as a transparent and accountable tool for the public to evaluate the State's progress.

The primary legislation driving California's management of GHG emissions is the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). AB 32 (Nuñez; Chapter 488, Statutes of 2006) focused on reducing GHG emissions in California and required the State to reduce GHG emissions to 1990 levels by 2020. CARB prepared a Draft Scoping Plan for Climate Change (Scoping Plan) in 2008 pursuant to AB 32. The Scoping Plan was approved by CARB in 2008 and is required to be updated at least every 5 years. The Scoping Plan was updated in May 2014.

In 2016, the State met the AB 32 target, 4 years early. The State Legislature passed Senate Bill (SB) 32 (Pavley; Chapter 249, Statutes of 2016), that codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation AB 197 (E. Garcia, Chapter 250, Statutes of 2016), that provided additional direction to update the Scoping Plan again in 2017. The 2017 update to the Scoping Plan focused on strategies to achieve the 2030 target set by Executive Order B-30-15 and codified by SB 32.

Executive Order B-55-18, signed on September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." The goal of carbon neutrality by 2045 complements other statewide goals (stated in SB 32 and AB 197), meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions should be offset by equivalent net removals of GHGs from the atmosphere, including through sequestration in forests, soils, and other natural landscapes. On November 16, 2022, CARB updated the Scoping Plan (referred to as the 2022 Scoping Plan for Achieving Carbon Neutrality), which lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHGs by 85 percent below 1990 levels no later than 2045 (CARB 2022).

In addition, Governor Newsom has issued three executive orders related to climate change:

- Executive Order N-19-19 (September 20, 2019): includes creation of a climate investment framework, focusing transportation funding to reduce GHG emissions, minimizing the carbon footprint of State buildings, and accelerating progress on meeting the goal of five million zero emissions vehicle sales by 2030.
- Executive Order N-79-20 (September 23, 2020): includes establishing a goal that 100 percent of in-State sales of new vehicles will be zero emission by 2025, accelerating deployment of affordable fueling and charging options for zero emissions vehicles, and proposing strategies to reduce carbon intensity of fuels beyond 2030 with consideration of the full life cycle of carbon.
- Executive Order N-82-20 (October 7, 2020): includes establishment of a California Biodiversity Collaborative addressing impacts of climate change on California's biodiversity and development of a Natural and Working Lands Climate Smart Strategy that serves as a framework to advance the State's carbon neutrality goal and build climate resilience.

4.7.2 Regulatory Setting

Climate change planning is addressed by State and local laws and regulations. State laws that may be relevant to the Project are identified in Appendix B. Local laws, regulations, and policies are discussed below.

4.7.2.1 Local

Ventura County 2040 General Plan (2020)

As part of the Ventura County 2040 General Plan, a GHG emissions reduction strategy (that serves as the County's Climate Action Plan) was prepared and integrated with the General Plan as Appendix B. A baseline GHG inventory was prepared using a baseline year of 2015 and focusing on community-wide emissions. As indicated within General Plan Appendix B (Figure B-1), transportation (36 percent), solid waste (17 percent), building energy (17 percent), stationary source (16 percent), and agriculture (13 percent) made up the majority of GHGs in unincorporated Ventura County. The County's GHG emissions forecast predicts a 7.8 percent decrease from the 2015 baseline by the year 2050 for unincorporated Ventura County, based on implementation of existing State and federal regulations. Ventura County GHG reduction goals and targets are documented in General Plan Policies COS-10.2 and COS-10.3, and focus on reductions in the County's 2015 GHG inventory:

- 41 percent below 2015 levels by 2030
- 61 percent below 2015 levels by 2040
- 80 percent below 2015 levels by 2050

Conservation and Open Space Element

Policies included within the Ventura County 2040 General Plan Conservation and Open Space Element (Ventura County 2020) include the following related to GHG emissions:

- **Policy COS-10.4: Greenhouse Gas Reductions in Existing and New Development**. The County shall reduce GHG emissions in both existing and new development through a combination of measures included in the GHG Strategy, which includes new and modified regulations, financing and incentive-based programs, community outreach and education programs, partnerships with local or regional agencies, and other related actions.

4.7.3 Significance Criteria

To date, GHG thresholds of significance have not been adopted by Ventura County. On November 8, 2011, the VCAPCD completed a staff report assessing several options and strategies in developing GHG thresholds for land development projects. Although no GHG thresholds were developed, the November 8, 2011, staff report stated that consistency with any GHG thresholds developed by the South Coast Air Quality Management District (SCAQMD) is preferred. On December 5, 2008, the SCAQMD governing board adopted an interim GHG significance threshold of 10,000 metric tons per year CO_2 equivalent (including amortized construction emissions) for industrial projects. Due to the lack of any other applicable threshold, this value is used in this analysis to determine the significance of the contribution of the Project to global climate change. This threshold is also consistent with the stationary source screening threshold (10,000 metric tons per year CO_2 equivalent) used by the Santa Barbara County APCD.

4.7.4 Impact Analysis and Mitigation

GHG emissions were estimated for each major Project component and option to identify the peak 12-month period for comparison to the threshold. GHG emissions were estimated using two models developed by CARB: EMFAC 2021 for on-road vehicles and OFFROAD 2021 for off-road construction equipment. OFFROAD 2021 was used to develop emissions factors specific to the type and horsepower of heavy equipment likely to be used, location, and project start year (estimated 2024 equipment population within Ventura County). EMFAC 2021 was used to develop motor vehicle GHG emissions factors specific to the location and project start year (Ventura County in 2024).

Impact GHG-1: Decommissioning-related GHG Emissions

Implementation of proposed decommissioning activities would result in GHG emissions that may contribute to global climate change **(Less than Significant).**

Impact Discussion

Use of heavy equipment, trucks, and worker vehicles would generate GHG emissions that may affect the global climate. Table 4.7-1a provides a summary of total GHG emissions for each major component and option. GHG emissions for a peak 12-month period were estimated (Table 4.7-1b) for comparison to the annual significance threshold and are based on decommissioning activities occurring at all four sites in the same 12-month period, including the highest 12 months of the 15 month Rincon Island Decommissioning component, OPC Decommissioning, and the highest emitting options for the SCC Parcel Improvements (Option 2) and for the Onshore Facility (Option 3 – first year).

The maximum 12-month period GHG emissions are estimated to be approximately 1,125.2 metric tons CO_2E per year, and would be under the threshold of 10,000 tons per year developed by the SCAQMD; therefore, the impact would be less than significant.

Table 4.7-1a. GHG Emissions Summary (Total Metric Tons)

	CO_2	CH_4	N_2O	CO_2E
Rincon Island Decommissioning Activities	1042.3	0.040	0.046	1056.1
SCC Parcel Improvements				
Option 1 – Native Revegetation and Access Improvements	22.2	<0.001	0.002	22.7
Option 2 – Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm	66.3	<0.001	0.005	67.7
Option 3 - Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage	38.7	0.001	0.002	39.4
OPC Decommissioning	17.8	0.001	0.001	18.0
Onshore Facility Remediation				
Option 1 – Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation	30.7	0.001	0.001	31.1
Option 2 – Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation	281.6	0.004	0.024	288.3
Option 3 – Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation	343.7	0.014	0.013	347.5
Option 4 – In-Situ Soil Mixing and In-Situ Groundwater Bioremediation	106.8	0.003	0.006	108.6
Option 5 – Localized Excavation/Surface Cap	66.6	0.002	0.004	67.6

	CO_2	CH_4	N_2O	CO_2E
Remainder and In-Situ Groundwater Bioremediation				

Table 4.7-1b. GHG Emissions Summary (Metric Tons, Peak 12-Month Period*)

Task/Option	CO_2	CH_4	N_2O	CO_2E
Rincon Island Decommissioning (in part)	858.6	0.033	0.039	870.1
SCC Parcel Improvements (Option 2)	66.3	0.001	0.005	67.7
OPC Decommissioning	17.8	0.001	0.001	18.0
Onshore Facility Option 3 (first year)	167.2	0.006	0.008	169.4
Total – Peak 12-Month Period	**1,109.9**	**0.041**	**0.052**	**1,125.2**
Significance Threshold (Total Tons per Year)				**10,000**

*The peak 12-month period is based on decommissioning activities occurring at all four sites in the same 12-month period, including the highest 12 months of the 15-month Rincon Island Decommissioning component, OPC Decommissioning, and the highest emitting options for the SCC Parcel Improvements (Option 2) and for the Onshore Facility (Option 3 – first year).

Rincon Island

Removal of surface structures, removal of the well bay concrete deck and pavement, removal of contaminated soil and backfill with clean soil would be conducted using heavy equipment and motor vehicles that would generate exhaust GHG emissions.

If conducted separately from other Project components, the maximum 12-month period GHG emissions for this activity has been estimated to be approximately 870.1 metric tons CO_2E, and would be under the threshold of 10,000 tons per year developed by the SCAQMD; therefore, the impact would be less than significant.

<u>Public Facilities Retention Option</u>

Since the Operator's building would still be removed under this option and only water and septic piping and the septic tank retained, heavy equipment and motor vehicle activity and associated GHG emissions would be virtually the same as the Rincon Island decommissioning estimates.

SCC Parcel

Option 1: Native Revegetation and Access Improvements

Option 1 would be limited to revegetation, minor improvements (walkway, bench, signage, stairway) and removal of coastal hazards along the shoreline. Therefore, equipment and motor vehicle use would be relatively small as is reflected in the low GHG emissions estimate provided In Table 4.7-1 (22.7 metric tons CO_2E). Option 1 activities would be under the threshold of 10,000 tons per year developed by the SCAQMD; therefore, the impact would be less than significant.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

This Option includes the same improvements listed under Option 1 as well as installation of a cobble back berm. Heavy equipment and motor vehicles used to transport and place cobble would generate additional GHG emissions as compared to Option 1.

If conducted separately from other Project components, the maximum 12-month period GHG emissions for Option 2 has been estimated to be approximately 67.7 metric tons CO_2E, and would be under the threshold of 10,000 tons per year developed by the SCAQMD; therefore, the impact would be less than significant.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

This Option includes the same improvements listed under Option 1 as well as installation of riprap along the shoreline. Heavy equipment and motor vehicles used to transport and place riprap would generate additional GHG emissions as compared to Option 1. Option 3 would generate lower GHG emissions than Option 2 due to the smaller amount of material transported and placed (360 as compared to 2,500 cubic yards for Option 2).

If conducted separately from other Project components, the maximum 12-month period GHG emissions for Option 3 has been estimated to be approximately 39.4 metric tons CO_2E, and would be under the threshold of 10,000 tons per year developed by the SCAQMD; therefore, the impact would be less than significant.

Onshore Pipeline Connections

Cleaning, flushing and removal of pipelines, and filling the pipe casing with cement slurry would be conducted using heavy equipment and motor vehicles that would generate exhaust GHG emissions. Equipment and motor vehicle use would be relatively small, as is reflected in the low GHG emissions estimates provided in Table 4.7-1.

If conducted separately from other Project components, the maximum 12-month period GHG emissions for OPC decommissioning activities has been estimated to be approximately 18.0 metric tons CO_2E, and would be under the threshold of 10,000 tons per year developed by the SCAQMD; therefore, the impact would be less than significant.

Onshore Facility

The options below include the installation of a physical barrier (sheet pile wall) between the Onshore Facility and the adjacent privately-owned Coast Ranch parcel to assess the worst-case scenario. It is important to note that this sheet pile wall would not be necessary if remediation activities at the Coast Ranch parcel were proposed to occur at the same time as the Project.

<u>Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation</u>

In-situ groundwater remediation activities would be conducted using heavy equipment and motor vehicles that would generate exhaust emissions. Since contaminated soil would be left in place, the amount of heavy equipment and motor vehicle use would be limited, as is reflected in relatively low GHG emissions (Table 4.7-1).

If conducted separately from other Project components, the maximum 12-month period GHG emissions for Onshore Facility Option 1 has been estimated to be approximately 31.1 metric tons CO_2E, and would be under the threshold of 10,000 tons per year developed by the SCAQMD; therefore, the impact would be less than significant.

<u>Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation</u>

Excavation and removal of approximately 7,500 cubic yards of contaminated soil and replacement with imported clean soil would be conducted using heavy equipment and motor vehicles and result in substantial heavy equipment and motor vehicle GHG emissions (Table 4.7-1).

If conducted separately from other Project components, the maximum 12-month period GHG emissions for Onshore Facility Option 2 has been estimated to be approximately 288.3 metric tons CO_2E, and would be under the threshold of 10,000 tons per year developed by the SCAQMD; therefore, the impact would be less than significant.

Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation

Excavation and on-site bioremediation of approximately 7,500 cubic yards of contaminated soil would be conducted using heavy equipment and motor vehicles and result in substantial heavy equipment and motor vehicle GHG emissions (Table 4.7-1). In addition, the treated soil piles would need to be watered and tilled on a weekly basis for about six years. Therefore, GHG emissions associated with Option 3 are the highest of the five options considered.

If conducted separately from other Project components, the maximum 12-month period GHG emissions for Onshore Facility Option 3 (year 1) has been estimated to be approximately 169.4 metric tons CO_2E, and would be under the threshold of 10,000 tons per year developed by the SCAQMD; therefore, the impact would be less than significant.

Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation

Soil mixing and in-situ bioremediation of approximately 7,500 cubic yards of contaminated soil would be conducted using heavy equipment and motor vehicles and result in substantial GHG emissions (see Table 4.7-1). Option 4 would have lower GHG emissions than Option 2 because off-site transport of contaminated soil and importation of clean soil would be avoided.

If conducted separately from other Project components, the maximum 12-month period GHG emissions for Onshore Facility Option 4 has been estimated to be approximately 108.6 metric tons CO_2E, and would be under the threshold of 10,000 tons per year developed by the SCAQMD; therefore, the impact would be less than significant.

Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation

Localized excavation of contaminated soil proposed under Option 5 would reduce the amount of earthwork in general, and reduce the volume of contaminated soil removed to about 2,300 cubic yards. This would reduce heavy equipment and motor vehicle use and associated GHG emissions (see Table 4.7-1). Due to the smaller volume of contaminated soil treated, Option 5 would generate lower GHG emissions than Options 2, 3, and 4.

If conducted separately from other Project components, the maximum 12-month period GHG emissions for Onshore Facility Option 5 has been estimated to be approximately 67.6 metric tons CO_2E, and would be under the threshold of 10,000 tons per year developed by the SCAQMD; therefore, the impact would be less than significant.

Mitigation Measures

None required.

4.7.5 Cumulative Impacts Analysis

Impact GHG-2: Project Contribution to Global Climate Change

Project GHG emissions may incrementally contribute to global climate change **(Less than Significant).**

Impact Discussion

GHGs are a cumulative concern since their potential effects on climate change occur on a regional to global scale. Therefore, any GHGs may incrementally contribute to global climate change. However, the Project contribution would be temporary and less than the significance threshold (see Table 4.7-1b). Therefore, the Project's contribution would not be cumulatively considerable and would be less than significant.

Mitigation Measures

None required.

4.7.6 Summary of Impacts and Proposed Mitigation Measures

Table 4.7-2. Summary of GHG Impacts and Mitigation Measures

Impact	Mitigation Measures
Impact GHG-1: Decommissioning-related GHG Emissions	None Required
Impact GHG-2: Project Contribution to Global Climate Change	None Required

4.8 HAZARDS AND HAZARDOUS MATERIALS

This section includes information on existing regional conditions and history of the Project site, and addresses the handling, storage, and disposal of hazardous materials and potential upset conditions that could result in a release of hazardous materials during remediation activities at Rincon Island and the Onshore Facility, as well as during improvements to the SCC Parcel, and proposed decommissioning activities at the OPC.

Additionally, potential impacts during proposed remediation and demolition activities for each Project component include the use of equipment that contains hydrocarbon fuel and lubricants during construction that would have the potential for an unanticipated release to the environment. Best management practices would be used during construction to avoid exposure of the offshore area to hazardous materials. Following completion of the proposed remediation and demolition, no hazardous materials would remain.

4.8.1 Environmental Setting

4.8.1.1 Regional Setting

<u>Naturally Occurring Oil Seeps and Tar Balls</u>

The Santa Barbara Channel has long been known to be a petroleum-rich area with significant oil and methane emissions. Early Spanish and English explorers such as Cabrillo, Fages, and Vancouver referred to the natural occurrence of oil and gas seeps in the channel and their use by the local Chumash people (Boles et al. 2023). The hydrocarbons are largely derived from the very young, Miocene-age Monterey Formation, with mapped concentrations in the areas of Ellwood (Coal Oil Point), Santa Barbara's Mesa area, Summerland, Carpinteria, and the Seacliff area (Rincon Island) of Ventura (USGS Map I-974 1975). Hydrocarbon releases from these active seeps are continuous, but periodically higher volume releases of both oil and gas have been observed. Such releases result in the periodic stranding of tar balls on beaches throughout the Santa Barbara Channel including the area of Mussel Shoals. Recent reports of large-scale tar ball stranding have been noted (Santa Barbara Independent 2023) with local experts unable to source or anticipate the occurrence rate. Based on a long history of such events, it is assumed that seep activity and the associated stranding of this oil on beaches will continue.

History of Oil and Gas Development in the Project Area

Rincon Island was constructed in 1959 by Atlantic Richfield Company (ARCO) for the specific purpose of well drilling and oil and gas production. Rincon Island and its appurtenant facilities were historically leased by CSLC to oil and gas operators (State Oil and Gas Lease Nos. PRC 145, PRC 410, and PRC 1466), including most recently Rincon Island Limited Partnership, which quitclaimed its lease interests to CSLC in December 2017 after becoming financially insolvent.

Rincon Island was designed to support approximately 50 oil and gas production wells. Rincon Island has not produced oil or gas commercially since October 2008 due in part to the condition and integrity of the causeway that connects the Island to the shore. Prior to the completion of the plugging and abandonment activities (Phase 1), the Island contained storage tanks, oil processing equipment, and other appurtenant facilities.

In June 2018, CSLC selected Driltek, Inc. (Driltek), a firm with expertise in the plugging and abandonment of onshore and offshore oil and gas wells, to perform engineering, operations, and administrative services for Rincon Island and the facilities onshore, under the oversight of CSLC engineers. In addition, Driltek undertook the development and execution of the program to plug and abandon the onshore and offshore wells, perform all ancillary tasks associated with the plugging and abandonment, provide essential personnel to continue the safe daily operations of the leases at the current baseline conditions, and place the facilities into caretaker status or equivalent condition (Phase 1). Phase 1 began in January 2019 and was completed in June 2021. The facilities are currently in caretaker status, meaning there is a caretaker onsite until a decommissioning plan is decided on and implemented.

Rincon Island was previously supported by a processing facility that operated until the completion of Phase 1 plugging and abandonment activities. That original facility included both a parcel owned by the State (Onshore Facility) and a privately owned parcel referred to as the Coast Ranch parcel, and contained 25 State oil wells, a handful of orphaned private wells, oil storage and processing facilities, and administrative offices. Only the parcel owned by the State (Onshore Facility) is included in the Project.

A discussion of existing conditions and site assessment activities at each Project site is included below.

4.8.1.2 Project-Specific Setting

Rincon Island

Rincon Island is constructed of a perimeter of riprap revetments that contain a sand fill core. The working surface of Rincon Island is approximately 1.2 acres and is paved with approximately 8 to 14 inches of concrete and asphalt. Prior to completion of Phase 1, this area of the Island contained an 88-slot well bay, one additional oil well located in a concrete cellar east of the well bay, aboveground storage tanks, sumps, pumps, gas scrubbers, a gas compressor, flare, pipeline systems, electrical supports, and various office and support building space. As part of Phase 1, the oil production and injection wells located in the well bay were permanently abandoned, and the well bay was filled in with soil and paved with concrete. The oil, gas, and water processing and storage facilities were removed. A portion of the sandy core and interior (interstitial) groundwater were found to be contaminated with hydrocarbons as discussed below.

Hazardous materials remaining above ground at Rincon Island includes non-friable asbestos containing material (ACM) that was identified during Phase 1 activities in the roofing materials and parapet walls of the Operator's Building and Electrical Building.

Rincon Island is not identified on the EPA Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) listing of Superfund sites (US EPA 2023), or on the DTSC Hazardous Waste and Substances Site List, Site Cleanup (Cortese List) (DTSC 2021). Additionally, Rincon Island is not located within 0.25 mile of a school.

Soil, Interstitial, and Ocean Water Assessments

Initial soil assessment activities were completed on Rincon Island in support of Phase 1 and Phase 2 on March 3 and 5, 2021 (Padre 2021a [Appendix E]). Additional soil, interstitial water, and ocean water assessment activities were completed on Rincon Island on May 4, 5, 11, and 13, and October 4, 2021. The results of the site assessment activities on the Island are included in Appendix E and summarized below.

The objective of the site assessment activities was to determine the potential presence of constituents of concern located within the Island core and interstitial water on Rincon Island resulting from historical petroleum hydrocarbon production and processing activities. The site assessment activities also included the collection of ocean water samples from within the riprap revetment wall material immediately adjacent to the Island perimeter. A total of 21 drill holes were drilled to facilitate the collection of soil samples for chemical analyses to maximum depths of 20 feet below ground surface (bgs). A total of three temporary interstitial water monitoring wells were constructed on the Island. The depth to interstitial water measured at the temporary monitoring wells ranged from approximately 11.96 feet to 14.61 feet below the top of the well casings at the surface of the Island, which corresponds to elevations that range from approximately 0.47 feet to 3.18 feet above mean sea level (msl).

A total of 60 soil samples, four interstitial water samples, and three ocean water samples were then submitted for laboratory analyses to determine the potential presence of petroleum hydrocarbon contamination. The laboratory analytical results for soil, interstitial water, and ocean water samples collected on the Island were compared to applicable LARWQCB and San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Environmental Screening Levels (ESLs), and State Water Resources Control Board (SWRCB) Water Quality Objectives (WQOs). The SFBRWQCB staff prepared the document titled User's Guide: Derivation and Application of Environmental Screening Levels (ESLs) Interim Final 2019 (Revision 1) to explain how the ESLs for over 100 common chemicals were derived and how they should (and should not) be used. This information was utilized as a guide to ESLs with respect to the Project because the SFBRWQCB User's Guide is consistent with existing policies and regulations in California.

The laboratory analytical results for 31 of the soil samples collected on the Island identified the presence of petroleum hydrocarbon concentrations within certain areas of the Island core at depths from approximately 1 foot to 16 feet bgs (Padre 2021a [Appendix E]). The estimated total volume of non-hazardous petroleum hydrocarbon-contaminated soil identified within the Island core is approximately 9,605 cubic yards. The laboratory analytical results for the interstitial water samples collected from temporary monitoring wells indicated petroleum hydrocarbon concentrations that were less than the applicable screening levels, and the laboratory analytical results for the three ocean water samples collected at the Island did not indicate the presence of petroleum hydrocarbon constituents.

SCC Parcel

There are no contaminated materials known to exist within the SCC Parcel, and this site was not previously used for oil and gas production. As such, no additional site assessment for hazardous materials was conducted.

Onshore Pipeline Connections

The OPC is located within a concrete vault, therefore, a site assessment for hazardous materials was not conducted. Completion of pipeline pigging, flushing, and abandonment activities associated with the OPC would ensure that these facilities are removed or left clean and cemented in place.

Onshore Facility

The elevation at the Onshore Facility ranges from approximately 13.48 feet to 17.65 feet above msl. The site is located within the area of former State Lease Nos. PRC 145 and PRC 410, which are located within the west central portion of the Rincon Oil Field, in Township 3 North, Range 24 West, Sections 8 and 17. The Onshore Facility is not listed on the EPA CERCLA listing of Superfund sites (US EPA 2023) or the DTSC Hazardous Waste and Substances Site List, Site Cleanup (Cortese List) (DTSC 2021), or located within 0.25 mile of a school.

Following the removal of the aboveground office, storage tanks, processing equipment, and piping during Phase 1, there are no known aboveground sources of hazardous materials remaining at the Onshore Facility. However, assessments of the Onshore Facility indicate that contaminated soil and groundwater remain, as discussed below.

Soil and Groundwater Assessment

Soil and groundwater assessment activities were completed at the Onshore Facility and to the west of the area in the U.S. Highway 101 median during the period from August 26, 2019, through November 1, 2021. The objective of the site assessments was to determine the potential presence of petroleum hydrocarbon constituents in soil and groundwater resulting from historical petroleum hydrocarbon production and processing activities performed at and in the vicinity of the Onshore Facility (Padre 2021b [Appendix E]).

The scope of site assessments completed at the Onshore Facility included the collection of 18 soil samples for chemical analyses from four oil well abandonment excavation areas, a total of 25 drill holes advanced to maximum depths of approximately 31 feet bgs, construction of six groundwater monitoring wells, and collection of a total of 10 groundwater samples. Two of the groundwater samples were collected from drill holes located downgradient from the Project site at offsite locations within the southbound median of U.S. Highway 101. A total of 78 soil samples and 10 groundwater samples were chemically analyzed for the presence of petroleum hydrocarbon constituents. Additionally, soil and groundwater assessment activities completed at the adjacent Coast Ranch property located upgradient from the Project included collection and chemical analyses of 188 soil samples and 12 groundwater samples (Padre 2022).

The laboratory analytical results at the Onshore Facility indicated that soil samples contained concentrations of hydrocarbons that exceeded regulatory environmental screening levels. Specifically, one soil sample contained a TPH(g [gas])(C4-C12) concentration that exceeded the Residential Shallow Soil Exposure ESL of 429 mg/kg. The laboratory analytical results indicated that 55 soil samples contained TPH(d [diesel])(C13-C22) concentrations that exceeded the Residential Shallow Soil Exposure ESL of 255 mg/kg, and one soil sample contained TPH(d)(C13-C22) concentrations that exceeded the Leaching to Groundwater ESL of 7,284 mg/kg. The laboratory analytical results indicated one soil sample contained a TPH(o[oil](C23-C40) concentration that exceeded the Residential Shallow Soil Exposure ESL of 12,033 mg/kg.

The laboratory analytical results for the 12 groundwater samples indicated TPH(g)(C4-C12) in eight locations at concentrations ranging from 39 micrograms per liter (µg/l) to 1,900 µg/l, and the results for one groundwater sample exceeded the Freshwater Eco-Toxicity ESL of 443 µg/l. The laboratory analytical results indicated all twelve groundwater samples contained TPH(d)(C13-C22) at concentrations ranging from 610 µg/l to 15,000 µg/l, and the results for eleven groundwater samples exceeded the Freshwater and Saltwater Eco-Toxicity ESL of 640 µg/l. The laboratory analytical results indicated all twelve groundwater samples contained TPH(o)(C23-C40) at concentrations ranging from 390 µg/l to 22,000 µg/l. ESL values for TPH(o)(C23-C40) have not been established.

Groundwater monitoring activities completed at the Onshore Facility indicated depths to groundwater that ranged from approximately 10.17 feet to 13.85 feet bgs, that correspond to groundwater elevations from approximately 1.95 feet to 3.91 feet above msl. The hydraulic flow direction is estimated towards the Pacific Ocean to the southwest. The first encountered groundwater beneath the

Onshore Facility is not a source of drinking water because of elevated salinity concentrations due to proximity to the Pacific Ocean.

The laboratory analytical results indicate the presence of petroleum hydrocarbons at concentrations greater than ESLs in soil and groundwater resulting from historical petroleum hydrocarbon production and processing activities performed at and in the vicinity of the Onshore Facility. The results for two groundwater samples collected from offsite locations within the median of the U.S. Highway 101 and the upgradient Coast Ranch parcel also indicated the presence of petroleum hydrocarbon concentrations that were greater than the applicable ESLs.

The total estimated in-place volume of petroleum hydrocarbon-contaminated soil at the Onshore Facility is approximately 7,500 cubic yards, and the estimated in-place volume of recycled asphalt aggregate base material is approximately 9,360 cubic yards.

4.8.2 Regulatory Setting

Federal and state laws and regulations pertaining to hazards and hazardous materials and relevant to the Project, including CCA Chapter 3, Section 30232, are discussed in Appendix B. However, since remediation activities will be closely coordinated with the LARWQCB through implementation of a Remedial Action Plan, a summary of this process is described below. Additionally, local policies or regulations applicable to the Project with respect to hazards and hazardous materials are also included below.

4.8.2.1 Los Angeles Regional Water Quality Control Board

The LARWQCB is responsible for discharges that may affect surface and groundwater quality in waters of the state. In order to remediate the Rincon Island and Onshore Facility Project sites, CSLC must coordinate with LARWQCB to review and approve a proposed Remedial Action Plan (RAP) prior to Project implementation. The RAP will outline the existing contamination onsite based on assessment findings and a plan for remediation based on the proposed limits of remediation in accordance with cleanup levels (objectives) that will be established by LARWQCB (and the Ventura County Environmental Health Division [VCEHD]).

4.8.2.2 Local

Ventura County 2040 General Plan (2020)

Hazards and Safety Element

Policies included within the Ventura County 2040 General Plan Hazards and Safety Element (Ventura County 2020) include the following policies related to hazards and hazardous materials:

- **Policy HAZ-5.2: Hazardous Materials and Waste Management Facilities**. The County shall require discretionary development involving facilities and operations which may potentially utilize, store, and/or generate hazardous materials and/or wastes to be located in areas that would not expose the public to a significant risk of injury, loss of life, or property damage and would not disproportionally impact Designated Disadvantaged Communities.
- **Policy HAZ-5.3: Preventing Contamination of Natural Resources**. The County shall strive to locate and control sources of hazardous materials to prevent contamination of air, water, soil, and other natural resources.
- **Policy HAZ-5.5: Hazardous Waste Reduction at the Source**. The County shall, as part of the discretionary review process, require that hazardous wastes and hazardous materials be managed in such a way that waste reduction through alternative technology is the first priority, followed by recycling and onsite treatment, with disposal as the last resort.
- **Policy HAZ-5.6: Hazardous Materials – County Regulatory Oversight**. The County shall continue to provide regulatory oversight for all facilities or activities that store, use, or handle hazardous materials.
- **Policy HAZ-5.7: Presence of Hazardous Wastes**. Applicants shall provide a statement indicating the presence of any hazardous wastes on a site, prior to discretionary development. The applicant must demonstrate that the waste site is properly closed, or will be closed, pursuant to all applicable state and federal laws, before the project is inaugurated.
- **Policy HAZ-7.1: Oil Spill Prevention**. The County shall review and analyze all proposed oil and gas exploration and production projects and shall condition all County discretionary permits for such projects, to require compliance with local, state, and federal oil spill prevention regulations. The County shall also provide input and comments on permit applications that are under the purview of an outside agency.

<u>Ventura County Environmental Health Division</u>

Ventura County Environmental Health Division, Certified Unified Program Agency (VC CUPA) is the CUPA for all incorporated and unincorporated areas of Ventura County, with the exception of the city of Oxnard. This means VC CUPA has been certified by the CalEPA to implement the following six State environmental programs:

- Hazardous Waste
- Hazardous Materials Business Plan (HMBP)
- California Accidental Release Prevention Program
- Underground Hazardous Materials Storage Tanks (UST)
- Aboveground Petroleum Storage Tanks/Spill Prevention Control and Countermeasure Plans (APSA)
- Onsite Hazardous Waste Treatment/Tiered Permit

The HMBP is required to include a summary of business activities, owner and operator information including emergency contacts, the type and quantity of reportable hazardous materials, a site map, emergency response procedures, and an employee training program. In general, the submittal of an HMBP is required if a business handles or stores a hazardous material equal to or greater than the minimum reportable quantities. These quantities are 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet (at standard temperature and pressure) for compressed gases. Exemptions to filing an HMBP are listed in the Health and Safety Code.

Remedial Action Plan. In order to remediate the Project sites, CSLC will coordinate with VCEHD (and LARWQCB) to review and approve a proposed RAP that will outline the existing contamination onsite based on assessment findings and a plan for remediation based on the proposed limits of remediation in accordance with cleanup levels (objectives) that will be established by VCEHD (and LARWQCB) prior to implementation.

4.8.3 Significance Criteria

According to the County of Ventura, a project would have a significant impact on hazards and hazardous materials if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

- Create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous materials within 0.25 mile of an existing or proposed school.
- Create a significant hazard due to location on a site which is included on a list of hazardous materials sites.

4.8.4 Impact Analysis and Mitigation

As indicated above, the Project sites are not located on a list of hazardous materials sites and are not located within 0.25 mile of an existing or proposed school. A such, evaluation of the Project with respect to the remaining Ventura County thresholds regarding hazards and hazardous materials is focused on determining if the proposed decommissioning activities would have the potential to create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials or from a reasonably foreseeable upset or accident condition. Since the proposed Project does not include construction of any permanent facilities that would involve the use or storage of hazardous materials, potential impacts are limited to short-term impacts from use of construction equipment and handling of potentially hazardous materials during the course of decommissioning activities, which would occur intermittently over approximately 2 years (with the exception of Onshore Facility Remediation Option 3, where soil treatments would extend over an additional 72 months).

Impact HAZ-1: Release of Hazardous Materials During or Following Decommissioning Activities

The proposed Project could create a potential hazard to the public or the environment through the demolition, transport, or disposal of hazardous materials encountered during decommissioning activities **(Less than Significant with Mitigation).**

Impact Discussion

Rincon Island

The wells located on the Island were previously plugged and abandoned in accordance with California Geologic Energy Management Division (CalGEM) requirements during Phase I. The 6-inch-diameter gas pipeline and the 6-inch-diameter oil pipeline were previously removed from the Island and the causeway and are currently terminated with caps at the causeway abutment.

A release of hazardous materials during decommissioning at Rincon Island would be limited to removal of contaminated sand and gravel from the core of the Island, including any remaining contamination in the well bay area (to be determined), and removal of contaminated interstitial water that would require handling of petroleum hydrocarbon-contaminated materials during excavation. Contaminated materials removal would be conducted in accordance with the RAP (**MM HAZ-1a**) and the requirements of the LARWQCB Site Cleanup Program (SCP). Additionally, in accordance with **MM HAZ-1b**, CSLC would coordinate with the VCAPCD to address any further required measures regarding handling of contaminated soil. The petroleum hydrocarbon-contaminated soil would be excavated using standard commercial excavation equipment (e.g., hydraulic excavator, front-end loader, track-mounted dozer). In accordance with **MM HWQ-1**, a SWPPP would be implemented during remediation activities to reduce potential grading impacts to water quality.

During transport of materials from Rincon Island to the appropriate receiving facilities, approximately 2,050 truckloads would be required to cross the causeway to and from the Island and through the Mussel Shoals community en route to the U.S. Highway 101 Freeway south. These truckloads would contain various waste streams including approximately 30 loads related to demolished building materials (including those containing ACM and potential lead-based paint) as well as approximately 960 loads of contaminated soil (sand and gravel). Transport of these materials would have the potential to impact the public or environment if an inadvertent release were to occur. However, implementation of **MM HAZ-1d** and **MM HAZ-1e** would include several safety measures intended to ensure proper handling of materials as well as safety of trucks leaving the Project site. These measures would include, but not be limited to, timing and weather restrictions, vehicle speed limits, and requirements to cover all loads. In the event that an unanticipated spill occurs, implementation of **MM HAZ-1c** would include oil spill response measures intended to minimize potential impacts to the public or environment. Following implementation of mitigation measures, a less than significant impact from handling or transport of hazardous materials during decommissioning at Rincon Island would result.

Rincon Island currently manages stormwater under a no-exposure certification (NEC) as part of the National Pollutant Discharge Elimination System (NPDES)/Industrial General Permit. The discharger must maintain a condition of no exposure at the facility in order for the conditional exclusion to remain applicable. The NEC is recertified annually to ensure the conditions of no exposure are satisfied. Under the proposed Project, no hazardous petroleum hydrocarbon-contaminated materials would remain on the Island, and the island would be backfilled with clean materials. No stormwater management would be required following completion of remediation activities at the Island.

The potential for release of asbestos on the Island is considered moderate based on the presence of asbestos in the onsite building materials. However, all applicable state and federal rules and regulations would be followed to protect workers, site personnel, residents, the community, and the environment during the course of decommissioning, demolition, disposal, or recycling activities of the onsite buildings in accordance with the rules and regulations of the California Division of Occupational Safety and Health, United States Department of Labor Occupational Safety and Health Administration (Cal/OSHA), and the USEPA/National Emission Standards for Hazardous Air Pollutants. In addition, a Cal/OSHA-Certified Asbestos Consultant would prepare an Asbestos Abatement Workplan (AAWP), which would include procedures for removal and handling of ACM, waste labeling and waste manifest requirements, transportation requirements, and acceptable disposal facilities prior to removal of these materials (**MM HAZ-1e**). With the implementation of **MM HAZ-1a, MM HAZ-1b, MM HAZ-1c, MM HAZ-1d, MM HAZ-1e,** and **MM HWQ-1**, the impact would be less than significant.

<u>Public Facilities Retention Option</u>

The public facilities retention option would include the demolition of the existing Operator's building and the retention of the existing septic system and water supply at Rincon Island. As the Operator's building would still be removed, this option would also have the potential for the release of asbestos during demolition. However, all applicable state and federal rules and regulations would be followed to protect workers, site personnel, residents, the community, and the environment during the course of decommissioning, demolition, disposal, or recycling activities of the onsite buildings in accordance with the rules and regulations of the California Division of Occupational Safety and Health, United States Department of Labor Occupational Safety and Health Administration (Cal/OSHA), and the USEPA/National Emission Standards for Hazardous Air Pollutants. In addition, a Cal/OSHA-Certified Asbestos Consultant would prepare an Asbestos Abatement Workplan (AAWP), which would include procedures for removal and handling of ACM, waste labeling and waste manifest requirements, transportation requirements, and acceptable disposal facilities prior to removal of these materials (**MM HAZ-1e**).

The retention of the existing septic system would slightly reduce the number of truckloads required for excavation and hauling of material from the Project Site. Completion of pumping activities associated with the septic system infrastructure would ensure that the septic system is left clean. Any remaining septic tank waste would be captured in vacuum trucks and taken offsite.

In accordance with the discussion above and with the implementation of **MM HAZ-1a, MM HAZ-1b, MM HAZ-1c, MM HAZ-1d, MM HAZ-1e,** and **MM HWQ-1**, the impact would be less than significant.

SCC Parcel

Options 1 through 3

There are no hazardous materials known to exist within the SCC Parcel, and this site was not previously used for oil and gas production. Although there are naturally occurring oil and tar seeps that have been documented on beaches in this area, these seeps are not associated with past or proposed Project activities. As a result, there would be no impact.

Onshore Pipeline Connections

Completion of pipeline pigging, flushing, and abandonment activities associated with the OPC would ensure that these facilities are removed or left clean and cemented in place. Flushwater, used to clean any residual hydrocarbons, would be captured in vacuum trucks and taken directly to World Oil for disposal in accordance with regulatory requirements. The potential for impacts from hazardous materials following completion of decommissioning activities would be low. A less than significant impact would result from the decommissioning of the OPC.

Onshore Facility

The options below include the installation of a physical barrier (sheet pile wall) along approximately 750 feet between the Onshore Facility and the adjacent privately-owned Coast Ranch parcel prior to initiation of construction to prevent cross contamination from the upgradient site. It is important to note that this sheet pile wall would not be necessary if remediation activities at the Coast Ranch parcel were proposed to occur at the same time as the Project.

Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation

Option 1 does not include the excavation of petroleum hydrocarbon-contaminated materials; therefore, no hauling of contaminated materials offsite would be necessary. The existing soil contamination would remain onsite; however, it would remain encapsulated by the existing asphalt surface cap and added cap material onsite. Remediation of groundwater at the Onshore Facility using in-situ bioremediation methods would address existing impacts to groundwater at the site and improve groundwater quality in the vicinity of the Onshore Facility as well as potential impacts to the Pacific Ocean. Remediation of groundwater contamination would result in a beneficial impact.

Although implementation of this Option would result in an improvement to the Onshore Facility by preventing offsite migration of contaminated materials, contaminated soil would remain encapsulated onsite and would therefore restrict potential future land uses that currently require a more stringent cleanup level for development. However, because Option 1 would minimize the potential for release of contaminated material, impacts are less than significant.

Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation

Option 2 includes excavation and hauling of the existing contaminated material to an approved offsite disposal facility. Contaminated materials removal would be conducted in accordance with the RAP (**MM HAZ-1a**) and the requirements of the LARWQCB SCP. Additionally, in accordance with **MM HAZ-1b**, CSLC would coordinate with the VCAPCD to address any further required measures regarding handling of contaminated soil. The petroleum hydrocarbon-contaminated soil and asphalt would be excavated using standard commercial excavation equipment (e.g., hydraulic excavator, front-end loader, track-mounted dozer). The excavation area sidewalls would be sloped to provide safe access for the excavating equipment to excavate the vertical and lateral extent of petroleum hydrocarbon-contaminated soil. In accordance with **MM HWQ-1**, a SWPPP would be implemented during remediation activities to reduce potential grading impacts to water quality.

During transport of materials from the Onshore Facility to the appropriate receiving site for disposal, approximately 675 loads of contaminated soil would be required. Transport of these materials would have the potential to impact the public or environment if an inadvertent release of contaminated soil were to occur. However, implementation of the Project in accordance with **MM HAZ-1b** and **MM HAZ-1d** would include several safety measures intended to ensure proper handling of materials as well as safety of trucks leaving the Project site. In the event that an unanticipated spill occurs, implementation of **MM HAZ-1c** would include oil spill response measures intended to minimize potential impacts to the public or environment. With the implementation of **MM HAZ-1a, MM HAZ-1b, MM HAZ-1c, MM HAZ-1d,** and **MM HWQ-1**, the impact would be less than significant.

Option 2 also includes the use of groundwater pump and treat methods that would mitigate further impacts to groundwater at the site, improve groundwater quality in the vicinity of the Onshore Facility, and mitigate potential impacts to the Pacific Ocean. Groundwater dewatering wells would be installed around the excavation area. The extracted petroleum hydrocarbon-contaminated groundwater would be processed through a series of onsite settling tanks, bag filters, and granular activated carbon vessels to meet the requirements to discharge into the County of Ventura-operated wastewater system. A beneficial long-term impact would result following completion of Option 2 at the Onshore Facility.

<u>Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation</u>

Option 3 includes excavation and onsite soil treatment and bioremediation of the contaminated material at the Project Site. Contaminated materials removal would be conducted in accordance with the RAP (**MM HAZ-1a**) and the requirements of the LARWQCB SCP. Additionally, in accordance with **MM HAZ-1b**, CSLC would coordinate with the VCAPCD to address any further required measures regarding handling of contaminated soil. The petroleum hydrocarbon-contaminated soil and asphalt would be excavated using standard commercial excavation equipment (e.g., hydraulic excavator, front-end loader, track-mounted dozer). The excavation area sidewalls would be sloped to provide safe access for the excavating equipment to excavate the vertical and lateral extent of petroleum hydrocarbon-contaminated soil. In accordance with **MM HWQ-1**, a SWPPP would be implemented during remediation activities to reduce potential grading impacts to water quality.

Onsite soil treatment and bioremediation methods do not require the transport of contaminated material offsite but would still generate approximately 1,944 trips to handle material onsite using a 12-ton capacity 10-wheeled dump truck. Additionally, soil would be stockpiled at the proposed area located west of Los

Sauces Creek onsite and regularly manipulated during bioremediation for approximately 72 months while land treatment is occurring. The handling of contaminated materials would have the potential to impact the public or environment if an inadvertent release were to occur. This potential is significantly extended as a result of Option 3 due to the time required to achieve remediation objectives utilizing this methodology. However, implementation of the Project in accordance with **MM HAZ-1b** and **MM HAZ-1d** would include several safety measures intended to ensure proper handling of materials as well as safety of trucks moving around at the Project Site. In the event that an unanticipated spill occurs, implementation of **MM HAZ-1c** would include oil spill response measures intended to minimize potential impacts to the public or environment. The implementation of BMPs such as installation of secondary containment around the onsite soil bioremediation land treatment area in accordance with **MM HAZ-1b** would also reduce potential impacts to the public and the environment. With the implementation of **MM HAZ-1a, MM HAZ-1b, MM HAZ-1c, MM HAZ-1d,** and **MM HWQ-1**, the impact would be less than significant.

Option 3 also includes groundwater pump and treat methods that would mitigate further impacts to groundwater at the site, improve groundwater quality in the vicinity of the Onshore Facility, and mitigate potential impacts to the Pacific Ocean. Groundwater dewatering wells would be installed around the excavation area. The extracted petroleum hydrocarbon-contaminated groundwater would be processed through a series of onsite settling tanks, bag filters, and granular activated carbon vessels to meet the requirements to discharge into the County of Ventura-operated wastewater system. A beneficial long-term impact would result following completion of Option 3 at the Onshore Facility.

<u>Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation</u>

Option 4 does not include the removal of petroleum hydrocarbon-contaminated materials from the Project Site; therefore, no hauling of contaminated materials offsite would be necessary. The existing soil contamination would remain onsite; however, it would remain encapsulated by the concrete that would be mixed with the impacted soil preventing any further migration or exposure. Remediation of the groundwater at the Onshore Facility using in-situ bioremediation methods would mitigate further impacts to groundwater at the site, improve groundwater quality in the vicinity of the Onshore Facility, and mitigate potential impacts to the Pacific Ocean, which is a beneficial impact. Although implementation of this Option would result in an improvement to the Onshore Facility by preventing offsite migration of contaminated materials, contaminated soil would remain encapsulated onsite and would therefore restrict potential future land uses that currently require a more stringent cleanup level for development. Because Option 4 would minimize the potential for release of contaminated material, impacts are less than significant.

Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation

Option 5 includes localized soil excavations and hauling of the contaminated material to depths of approximately 3 feet and surface capping of the contaminated material at depths greater than 3 feet. Contaminated materials removal would be conducted in accordance with the RAP (**MM HAZ-1a**) and the requirements of the LARWQCB SCP. Additionally, in accordance with **MM HAZ-1b**, CSLC would coordinate with the VCAPCD to address any further required measures regarding handling of contaminated soil. The petroleum hydrocarbon-contaminated soil and asphalt would be excavated to a depth of approximately 3 feet using standard commercial excavation equipment (e.g., hydraulic excavator, front-end loader, track-mounted dozer). The excavation area sidewalls would be sloped to provide safe access for the excavating equipment to excavate the vertical and lateral extent of petroleum hydrocarbon-contaminated soil. In accordance with **MM HWQ-1**, a SWPPP would be implemented during remediation activities to reduce potential grading impacts to water quality. Following backfill of the excavation with clean soil, the remaining petroleum hydrocarbon-containing soil at depths greater than approximately 3 feet would be effectively capped and no longer a threat of exposure.

Option 5 reduces the number of truckloads needed to transport materials from the Onshore Facility to the appropriate receiving site for disposal to approximately 115 loads of contaminated soil. Transport of these materials would have the potential to impact the public or environment if an inadvertent release were to occur. However, implementation of the Project in accordance with **MM HAZ-1b** and **MM HAZ-1d** would include several safety measures intended to ensure proper handling of materials as well as safety of trucks leaving the Project site. In the event that an unanticipated spill occurs, implementation of **MM HAZ-1c** would include oil spill response measures intended to minimize potential impacts to the public or environment. With the implementation of **MM HAZ-1a, MM HAZ-1b, MM HAZ-1c, MM HAZ-1d,** and **MM HWQ-1**, the impact would be less than significant.

Option 5 also includes in-situ groundwater bioremediation methods that would mitigate further impacts to groundwater at the site, improve groundwater quality in the vicinity of the Onshore Facility, and mitigate potential impacts to the Pacific Ocean. Groundwater dewatering wells would be installed around the excavation area. The extracted petroleum hydrocarbon-contaminated groundwater would be processed through a series of onsite settling tanks, bag filters, and granular activated carbon vessels to meet the requirements to discharge into the County of Ventura-operated wastewater system.

Implementation of this Option would result in an improvement to the Onshore Facility by focusing on removal of contaminated soils that would have the greatest potential for release or exposure to persons or the environment, however, the contaminated soil below 3 feet would remain encapsulated onsite and would therefore restrict potential future land uses that currently require a more stringent cleanup level for development. Because Option 5 would minimize the potential for release of contaminated material, impacts are less than significant.

Mitigation Measures

MM HAZ-1a: Remedial Action Plan Implementation. The RAP shall be submitted to, and approved by, VCEHD and LARWQCB prior to Project decommissioning activities. The RAP shall also be shared with CalGEM for review prior to final approval. Final approval of the RAP shall include the level of remediation to be implemented. Upon approval, contaminated materials shall be removed and disposed of in accordance with procedures described in the RAP. All soil sampling results shall be provided to the VCEHD immediately upon receiving results.

MM HAZ-1b: Hydrocarbon Contaminated Soil Notification(s) and BMPs. Prior to Project activities related to removal of contaminated soil, the VCAPCD must be notified as an Air Pollution Control District Permit would be required. In addition, the following measures shall be implemented:

- Covers on storage piles shall be maintained in place at all times in areas not actively involved in soil addition or removal
- Contaminated soil that is stockpiled or containerized shall be covered with at least 6 inches of packed uncontaminated soil or

another TPH-non-permeable barrier such as plastic tarp. No headspace shall be allowed where vapors could accumulate

- Covered piles shall be designed in such a way to eliminate erosion due to wind or water. No openings in the covers are permitted.
- The air quality impacts from the excavation and haul trips associated with removing the contaminated soil must be evaluated through onsite monitoring during removal and mitigated through modification of activities (i.e., reduction of activity or equipment idling or watering of soil to minimize dust) if total emissions exceed VCAPCD's construction phase thresholds
- During soil excavation, odors shall not be evident to such a degree as to cause a public nuisance
- Clean soil must be segregated from contaminated soil

MM HAZ-1c: Oil Spill Contingency Plan Implementation. A Project-specific Oil Spill Contingency Plan (OSCP) shall be developed and implemented during all Project activities in the event of a release of oil or contaminants. The OSCP shall delineate prevention measures including, but not limited to, daily inspection of equipment, refueling at designated stations, and secondary containment for equipment to prevent spills. Additionally, the onshore work sites shall maintain onsite response equipment to clean up minor spills. In the event of a major spill, the OSCP requires utilization of an independent oil spill response contractor (i.e., Marine Spill Response Corporation) to provide secondary cleanup. Additionally, the Governor's Office of Emergency Services (OES) shall be notified immediately in the event of a reportable quantity (as defined by OES)[12] accidental spill to ensure proper notification, clean up, and disposal of waste.

MM HAZ-1d: Hazardous Materials Management and Contingency Plan. A Hazardous Materials Management and Contingency Plan shall be developed prior to Project implementation. Measures shall include, but not be limited to:

- Identification of appropriate fueling and maintenance areas for equipment
- Daily equipment inspection schedule
- Reference to spill response supplies to be maintained onsite
- Weather and timing contingencies/restrictions

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- Truck speeds no greater than 5 miles per hour (mph) on the Rincon Island Causeway and no greater than 15 mph in the Mussel Shoals residential community
- Covered truck loads
- Reference to Recreational Site Access and Traffic Management Plan measures

MM HAZ-1e: Asbestos Abatement Workplan. Approximately 60 days prior to work at Rincon Island, an Asbestos Abatement Workplan will be prepared by a Cal/OSHA-Certified Asbestos Consultant for review and approval by Ventura County. The workplan shall include procedures for removal and handling of ACM, waste labeling and waste manifest requirements, transportation requirements, and acceptable disposal facilities prior to removal of these materials.

MM HWQ-1: Storm Water Pollution Prevention Plan (see Section 4.9.4, Hydrology and Water Quality)

Impact HAZ-2: Release of Hazardous Materials from Project Equipment and Machinery During Decommissioning Activities

The Project would require the use of heavy equipment and machinery, including hydrocarbon fuels and lubricants, which would have the potential to spill into the environment **(Less than Significant with Mitigation).**

Impact Discussion

Rincon Island

Decommissioning activities at Rincon Island includes removal of structures, concrete and asphalt pavement, and excavation of contaminated soil and interstitial water. Equipment and machinery being used to complete decommissioning activities on Rincon Island would include excavators, front-end loaders, dozers, vibratory soil compactors, trucks, truck-mounted cranes, and forklifts. During transport of materials from Rincon Island to the appropriate receiving facilities, approximately 2,050 truckloads would be required to cross the causeway to and from the Island and through the Mussel Shoals community en route to the U.S. Highway 101 Freeway south. The use of the equipment and machinery may result in the accidental release of hazardous materials, and subsequent environmental and human exposure, due to accidental spills of hydrocarbons (including diesel fuel) and lubricants. With the implementation of **MM HAZ-1c** and **MM HAZ-1d,** the impact would be less than significant.

Public Facilities Retention Option

The public facilities retention option would include the demolition of the existing Operator's building and the retention of the existing septic system and water supply at Rincon Island. Equipment and machinery being used to complete demolition of the Operator's building include excavators, front-end loaders, and trucks. The retention of the existing septic system and water supply would slightly reduce the number of truckloads required for excavation and backfill of the Project Site. The completion of pumping activities associated with the septic system infrastructure would require a vacuum truck. The use of the equipment and machinery may result in the accidental release of hazardous materials, and subsequent environmental and human exposure, due to accidental spills of hydrocarbons (including diesel fuel) and lubricants. With the implementation of **MM HAZ-1c** and **MM HAZ-1d,** the impact would be less than significant.

SCC Parcel

Option 1: Native Revegetation and Access Improvements

Activities being completed in Option 1 include removing non-native vegetation from the Project Site, improving the existing pathways with the appropriate surface material, and installing a stairway, a bench, and a sign. Equipment and machinery being used to complete Option 1 improvement activities include excavators and trucks. The use of the equipment and vehicles may result in the accidental release of hazardous materials, and subsequent environmental and human exposure, due to accidental spills of hydrocarbons (including diesel fuel) and lubricants. With the implementation of **MM HAZ-1c** and **MM HAZ-1d,** the impact would be less than significant.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

In addition to the activities outlined for Option 1, Option 2 would also require installation of a cobble back berm at the SCC Parcel. This activity would require the import of approximately 2,500 cubic yards of cobble requiring 250 truckloads from a quarry in Ventura County, which would be placed using dump trucks, two excavators, and a loader. The use of the additional equipment and vehicles may result in a greater possibility for an accidental release of hazardous materials, and subsequent environmental and human exposure, due to accidental spills of hydrocarbons (including diesel fuel) and lubricants. Additionally, Option 2 requires work activities and equipment access in closer proximity to the sensitive intertidal area, which would have a greater potential for release into the adjacent Pacific Ocean. With the implementation of **MM HAZ-1c** and **MM HAZ-1d,** the impact would be less than significant.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

In addition to the activities outlined for Option 1, Option 3 would also require the replacement of riprap that was formerly present within the SCC Parcel. This activity would require the import of approximately 360 cubic yards of riprap requiring 36 truckloads from a quarry in Ventura County, and placement using a small crane with a rock grapple and spider excavator. The use of the additional equipment and vehicles may result in a greater possibility for an accidental release of hazardous materials, and subsequent environmental and human exposure, due to accidental spills of hydrocarbons (including diesel fuel) and lubricants. Additionally, Option 3 requires work activities and equipment access in closer proximity to the sensitive intertidal area, which would have a greater potential for release into the adjacent Pacific Ocean. With the implementation of **MM HAZ-1c** and **MM HAZ-1d,** the impact would be less than significant.

Onshore Pipeline Connections

Completion of pipeline pigging, flushing, and abandonment activities associated with the OPC would ensure that these facilities are removed or left clean and cemented in place. Equipment and machinery being used to complete decommissioning activities of the OPC include excavators equipped with buckets, hydraulic grapple, shear and roller compactor attachments, front-end loaders, vacuum trucks, cement trucks, cement mixer temporary tanks, water pump, air compressor, cement pump, welding machine, temporary piping, pig launchers and pig receivers. The use of the equipment and machinery may result in the accidental release of hazardous materials, and subsequent environmental and human exposure, due to accidental spills of hydrocarbons (including diesel fuel) and lubricants. With the implementation of **MM HAZ-1c** and **MM HAZ-1d,** the impact would be less than significant.

Onshore Facility

Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation

Option 1 does not include any active excavation of contaminated soil, and therefore only requires truck trips for equipment mobilization and demobilization, installation of the steel sheet pile wall, placement of additional surface cap material, and site access to facilitate monitoring during groundwater bioremediation activities. In-situ groundwater bioremediation methods would require the use of a direct-push drilling rig to inject oxygen releasing compounds into the groundwater. This option would require less construction equipment and vehicles compared to the other options, which would reduce the possibility for an accidental release of hazardous materials, and subsequent environmental and human exposure, due to accidental spills of hydrocarbons (including diesel fuel) and lubricants. With the implementation of **MM HAZ-1c** and **MM HAZ-1d,** the impact would be less than significant.

Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation

Option 2 includes installation of a steel sheet pile wall, the excavation and hauling of contaminated soil to an offsite disposal facility, and the installation of groundwater dewatering wells for groundwater pump and treat methods. Primary equipment and machinery required to complete these activities would include an excavator, loader, dozer, hauling trucks, a generator, tanks, hollow-stem auger drilling rig, and support trucks. Approximately 675 truckloads would be required to haul the contaminated material to an offsite disposal facility. Additionally, approximately 675 truckloads would be required to import clean soil to the Project Site. The use of the additional equipment and vehicles may result in a greater possibility for an accidental release of hazardous materials, and subsequent environmental and human exposure, due to accidental spills of hydrocarbons (including diesel fuel) and lubricants. With the implementation of **MM HAZ-1c** and **MM HAZ-1d,** the impact would be less than significant.

Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation

Option 3 includes installation of a steel sheet pile wall, the excavation and onsite soil treatment and bioremediation of contaminated material, and the installation of groundwater dewatering wells for groundwater pump and treat methods. Primary equipment and machinery required to complete these activities would include an excavator, loader, dozer, hauling trucks, a generator, hollow-stem auger drilling rig, and support trucks. Treating the contaminated material onsite eliminates the truckloads required to haul contaminated soil from the Onshore Facility Project Site. However, approximately 1,944 trips would be required to handle material onsite using a 12-ton capacity 10-wheeled dump truck. The use of the equipment and vehicles may result in the accidental release of hazardous materials, and subsequent environmental and human exposure, due to accidental spills of hydrocarbons (including diesel fuel) and lubricants. With the implementation of **MM HAZ-1c** and **MM HAZ-1d,** the impact would be less than significant.

Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation

Option 4 includes installation of a steel sheet pile wall and the in-situ mixing of petroleum hydrocarbon-containing soil with a common reagent such as cement to solidify and stabilize in-place the petroleum hydrocarbon-containing soil and in-situ groundwater bioremediation methods. Equipment and machinery required to complete these activities would primarily include an excavator or large-diameter flight auger drilling rig, loader, dozer, direct-push drilling rig, and support trucks. Hauling trips required in support of this option would only be for equipment mobilization and demobilization as well as approximately 10, 120-ton capacity bulk cement truck trips. The use of less equipment and vehicles reduces the possibility for an accidental release of hazardous materials, and subsequent environmental and human exposure, due to accidental spills of hydrocarbons (including diesel fuel), lubricants, and cement. With the implementation of **MM HAZ-1c** and **MM HAZ-1d,** the impact would be less than significant.

Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation

Option 5 includes installation of a steel sheet pile wall, localized soil excavations and hauling of the contaminated material to depths of approximately 3 feet, surface capping of the contaminated material with clean soil at depths greater than 3 feet, and in-situ groundwater bioremediation. Primary equipment required to complete these activities would include an excavator, loader, dozer, hauling trucks, a direct-push drilling rig, and support trucks. The amount of contaminated soil requiring transportation offsite to an appropriate disposal facility would be reduced under Option 5. Approximately 115 truckloads would be required to haul the contaminated material to an offsite disposal facility. Additionally, approximately 115 truckloads would be required to import clean soil to the Project Site. The use of less equipment and vehicles reduces the possibility for an accidental release of hazardous materials, and subsequent environmental and human exposure, due to accidental spills of hydrocarbons (including diesel fuel) and lubricants. With the implementation of **MM HAZ-1c** and **MM HAZ-1d,** the impact would be less than significant.

Mitigation Measures

MM HAZ-1c: Oil Spill Contingency Plan Implementation

MM HAZ-1d: Hazardous Materials Management and Contingency Plan

4.8.5 Cumulative Impacts Analysis

Impact HAZ-3: Potential Cumulative Hazardous Materials Impacts

Decommissioning-related hazardous materials impacts would incrementally contribute to cumulative impacts if other projects were conducted at the same time in this location **(Less than Significant with Mitigation/Beneficial).**

Impact Discussion

During decommissioning, the proposed Project may contribute to cumulative hazardous materials impacts affecting human and environmental receptors. Other projects that may take place at the same time as the Project and would have a similar potential to increase risk related to hazards and hazardous materials in the vicinity of the Project site would include the Chevron Decommissioning and Remediation of the Carpinteria Oil and Gas Processing Facilities as well as remediation activities at the adjacent and upgradient Coast Ranch parcel. These Projects would also require demolition of structures and remediation of hydrocarbon impacted soils, as well as transport of these materials to disposal facilities south of the Project sites within Ventura County. Although a similar risk exists, the potential sources of hazardous materials would be primarily localized in equipment and soils present at each respective site.

In response, the implementation of **MMs HAZ-1a** through **MM HAZ-1e,** and **MM HWQ-1** would reduce potential impacts of the Project from handling and disposal of hazardous materials to less than significant. Therefore, with mitigation, the cumulative impact would be less than significant.

Further, remediation of the Project sites would reduce the amount of contamination present in the long-term, which is a beneficial impact.

Mitigation Measures

MM HAZ-1a: Remedial Action Plan Implementation

MM HAZ-1b: Hydrocarbon Contaminated Soil Notification(s) and BMPs

MM HAZ-1c: Oil Spill Contingency Plan Implementation

MM HAZ-1d: Hazardous Materials Management and Contingency Plan

MM HAZ-1e: Asbestos Abatement Workplan

MM HWQ-1: Storm Water Pollution Prevention Plan, (see Section 4.9.4, Hydrology and Water Quality)

4.8.6 Summary of Impacts and Proposed Mitigation Measures

Table 4.8-1. Summary of Hazards and Hazardous Materials Impacts and Mitigation Measures

Impact	Mitigation Measures
Impact HAZ-1: Release of Hazardous Materials During or Following Decommissioning Activities	**MM HAZ-1a:** Remedial Action Plan Implementation **MM HAZ-1b:** Hydrocarbon Contaminated Soil Notification(s) and BMPs **MM HAZ-1c:** Oil Spill Contingency Plan Implementation **MM HAZ-1d**: Hazardous Materials Management and Contingency Plan **MM HAZ-1e**: Asbestos Abatement Workplan **MM HWQ-1:** Storm Water Pollution Prevention Plan
Impact HAZ-2: Release of Hazardous Materials from Project Equipment and Machinery During Decommissioning Activities	**MM HAZ-1c:** Oil Spill Contingency Plan Implementation **MM HAZ-1d:** Hazardous Materials Management and Contingency Plan
Impact HAZ-3: Potential Cumulative Hazardous Materials Impacts	**MM HAZ-1a:** Remedial Action Plan Implementation **MM HAZ-1b:** Hydrocarbon Contaminated Soil Notification(s) and BMPs **MM HAZ-1c:** Oil Spill Contingency Plan Implementation **MM HAZ-1d**: Hazardous Materials Management and Contingency Plan **MM HAZ-1e**: Asbestos Abatement Workplan **MM HWQ-1:** Storm Water Pollution Prevention Plan

4.9 HYDROLOGY AND WATER QUALITY

This section addresses potential impacts and benefits to water resources resulting from the proposed Project. Potential impacts of the proposed Project are limited to construction-related effects to marine and onshore water quality during decommissioning activities, as further discussed below.

The environmental setting provides information on existing water quality characteristics of the Santa Barbara Channel, as well as onshore surface and groundwater in the vicinity of the Project decommissioning areas. This impact evaluation focuses on the potential effects of the proposed Project and potential for cumulative impacts on water resources in the area and identifies mitigation measures intended to lessen significant impacts.

For a discussion related to potential impacts from hazardous materials with respect to surface or groundwater quality, please refer to Section 4.8, Hazards and Hazardous Materials.

4.9.1 Environmental Setting

4.9.1.1 Marine Hydrology and Water Quality

The marine water quality study area includes Rincon Island and causeway, and the nearshore intertidal portion of the SCC Parcel.

Overview

The California Current is the primary driver for water transport along the northern and central portions of the California coast, including the Ventura County coastline. The California Current is generally characterized as a broad, shallow, slow moving southerly current characterized by cold, low-salinity, high-oxygen water from Alaska. The nearshore manifestations of the California Current can vary in both speed and direction as winds, tides, and surf conditions can dramatically alter local conditions.

As indicated during past offshore surveys, turbidity can be high and limit water clarity offshore (UCSB 2021, Appendix D1). The California Countercurrent brings warmer and more saline waters from Baja California north along the Ventura County coastline, and the two currents mix near the surface surrounding the Channel Islands. Habitat for both cold and warm water species occurs where these two currents mix, in the Channel Islands and on the Ventura Coast.

Surface water temperatures in the offshore area typically range from 55 to 67 degrees Fahrenheit (°F) with a mean value of 62 °F. Winds along this section of the coastline are predominantly from the northwest and promote the surface water mass' offshore movement with subsequent replacement by cold, nutrient-rich water upwelling from deeper layers. Seasonal upwelling plays an important role in temperature and nutrient cycling along the entire coast of California. Upwelling is not restricted temporally and can occur at any time during the year when the necessary wind conditions persist.

Ocean Water Quality

The principal State regulatory document for ocean water quality is the California Ocean Plan (SWRCB 2019). The California Ocean Plan sets forth water quality objectives for ocean waters to ensure the reasonable protection of beneficial uses and the prevention of nuisance. The California Ocean Plan includes water quality objectives for four categories: bacterial characteristics, physical characteristics, chemical characteristics, and biological characteristics.

Mussel Shoals Beach, including the nearshore area of the SCC Parcel, has not been designated as impaired waters under Clean Water Act Section 303(d) (State Water Board 2018). Rincon Island is currently utilized by sea birds for roosting habitat, which causes minor impacts to water quality due to the discharge of bird feces during storm events and large waves.

VCEHD operates an ocean water quality sampling program to detect bacteria concentrations that warrant beach closures. Beaches are closed when sampling results indicate California Ocean Plan standards for total coliform, fecal coliform, or enterococcus are exceeded. Forty sites are sampled during the dry weather season (April to October) and 19 sites are sampled during the wet weather season (November to March). The nearest sampling sites to the Phase 2 decommissioning areas are La Conchita Beach (0.7 miles upcoast of the causeway) and Oil Piers Beach (0.9 miles downcoast of the causeway). Since March 2018, La Conchita Beach has been closed for 5 days and Oil Piers Beach has been closed for 7 days due to exceedance of standards.

Rincon Island

A study was conducted at Rincon Island (Padre 2021a) that included construction of three interstitial water monitoring wells as well as sampling of ocean water from within the riprap revetment wall immediately adjacent to the Island perimeter. The depth to interstitial water measured at the temporary monitoring wells ranged from approximately 11.96 feet to 14.61 feet below the surface of the Island, which corresponds to elevations that range from approximately 0.47 foot to 3.18 feet above msl. Water quality parameters observed within the interstitial water monitoring wells are provided in Table 4.9-1 below.

Table 4.9-1. Rincon Island Water Quality Summary

Well	Temperature (Celsius)	pH	Color	Sheen? Yes/No	Dissolved Oxygen (DO) mg/L	ORP (mV)	Turbidity (NTU)
MW-1	19.02	7.03	Turbid	No	9.0	163.2	22
MW-2	19.91	6.36	Turbid	No	0.91	125.4	22
MW-3	19.12	7.19	Turbid	No	0.47	133.6	22

mV = millivolts. Higher readings correlate to a more sanitary water system (fewer bacteria).
NTU = Nephelometric Turbidity Unit (Unit Used to Measure Turbidity, the Presence of Suspended Particles in Water). For reference, drinking water is generally 10 NTU.
ORP = Oxidation reduction potential. Important to determine overall water sanitation and the ability to stay clean. When ORP is high, there is a lot of oxygen present in the water, which means that bacteria can work more efficiently to reduce contamination.

The laboratory analytical results for three interstitial water samples indicated Total Dissolved Solids (TDS) concentrations ranging from 9,300 milligrams per liter (mg/l) to 21,000 mg/l. The TDS concentrations of the interstitial water samples collected from the Project Site exceeded 3,000 mg/l, which is considered by the SWRCB Resolution No. 88-63 Adoption of Policy Entitled “Sources of Drinking Water” to be the TDS limit for water to be suitable for municipal or domestic water supply. Additionally, the interstitial water samples were noted to contain concentrations of TPHs in the diesel fuel range, as they are in contact with hydrocarbon contaminated soils present onsite (see Section 4.8, Hazardous Materials, for additional detail).

The ocean water samples collected were analyzed for the presence of chemicals of potential concern. As indicated in the sampling report (Appendix E1), the ocean water samples did not detect the presence of TPHs, volatile organic compounds, or semi-volatile organic compounds. However, concentrations of barium were detected that were less than WQO and ESL values. Additionally, selenium concentrations in all three ocean water samples were in excess of the ESL (0.0005 mg/l) and WQO (0.06 mg/l) values, which is likely associated with organic material present throughout the revetment wall riprap material.

4.9.1.2 Onshore Hydrology and Water Quality

The onshore water quality study area includes the upland portion of the SCC Parcel, OPC, and Onshore Facility.

Surface Water

The only surface water located within the onshore study area includes the northern portion of the Onshore Facility that is traversed by Los Sauces Creek. Los Sauces Creek extends approximately 2.3 miles from its headwaters on the east slope of Rincon Mountain (2,161 feet above msl) to its confluence with the Pacific Ocean. The watershed of Los Sauces Creek is about 1,000 acres and is located within the Los Sauces Creek Hydrologic Subarea, that is part of the Rincon Creek Hydrologic Area. Most of Los Sauces Creek is in a natural state. However, the lower 1,100 feet of the streambed has been channelized or converted to culverts, including road and railroad crossings. The reach of Los Sauces Creek within the Onshore Facility has not been channelized. Los Sauces Creek has not been designated as an impaired water under Clean Water Act Section 303(d) (SWRCB 2018).

Groundwater

California's groundwater occurs in a variety of geologic settings across the State, within basin and non-basin areas. The California Department of Water Resources has identified 515 defined groundwater basins that provide approximately 94 percent of the total groundwater used in the State, while the non-basin areas provide the remaining 6 percent (CDWR 2021). As defined in Title 23 Section 341(g) of the California Code of Regulations, a groundwater basin is an aquifer or stacked series of aquifers with reasonably well-defined boundaries in a lateral direction, based on features that significantly impede groundwater flow, and a definable bottom.

The Project areas are located within a non-basin area, meaning there are no recognized groundwater basins or aquifers in the Project area. The nearest groundwater basin is the Carpinteria Groundwater Basin, located approximately 2.3 miles northwest of the Onshore Facility, which has no hydrologic conductivity with the Project sites. No groundwater production occurs near the Project sites. Wells in the area are limited to groundwater quality monitoring wells. As discussed in Section 4.8.1.4, groundwater contamination at the Onshore Facility occurs at shallow depths in Quaternary-era surficial sediments. Groundwater affected by contamination at the Onshore Facility is considered "perched" because there is no hydrologic connection to an aquifer; however, there is still the potential for migration of on-site groundwater contamination into ocean waters.

The Project will require use of water for pipeline flushing as well as dust suppression, irrigation of restoration areas, and cement mixing. Water to be supplied to support Project activities would come (in part) from the Upper Ventura River Groundwater Basin and the Ojai Valley Groundwater Basin. Under the 2014 Sustainable Groundwater Management Act (SGMA), the California Department of Water Resources evaluated and prioritized each groundwater basin in the State to focus efforts on reducing or preventing overdraft and other undesirable results of poor management. The Upper Ventura River Groundwater Basin was assigned a medium priority, while the Ojai Valley Groundwater Basin was assigned a high priority. Therefore, both of these basins must establish a groundwater sustainability agency and develop a Groundwater Sustainability Plan (GSP).

As indicated within the Upper Ventura River Groundwater Agency (UVRGA) GSP (2022), approximately 3,560 acre-feet per year of groundwater is pumped from this basin. Modeling conducted as part of Upper Ventura River Groundwater Basin GSP preparation indicates that the projected inflows and outflows will be approximately balanced during the 50-year SGMA implementation period even with climate change considered.

The Ojai Basin Groundwater Management Agency (OBGMA) also adopted a GSP (2022), to comply with SGMA. As indicated within the GSP, approximately 7,730 acre-feet per year of groundwater is pumped from this basin. Implementation of the GSP is anticipated to ensure the Ojai Valley Groundwater Basin continues to operate within its sustainable yield and does not experience undesirable results within the 50-year SGMA implementation period. Therefore, overdraft of the Ojai Valley Groundwater Basin due to use of water from this basin during the Project is also not anticipated.

Marine

The shoreline of Punta Gorda (Mussel Shoals area, including the SCC Parcel) is located within a designated Special Flood Hazard Area with a base flood elevation/depth ranging from 16 to 29 feet above mean sea level (as shown on Flood Insurance Rate Map panel 06111C0702F, effective 1/29/21).

Onshore

The eastern portion of the Mussel Shoals community is located within a designated Special Flood Hazard Area associated with an erosional drainage feature extending to the north. A portion of the Onshore Facility is located within a designated Special Flood Hazard Area (1 percent annual change flood hazard) associated with Los Sauces Creek (as shown on FEMA Flood Insurance Rate Map panel 06111C0706F, effective 1/29/21).

4.9.2 Regulatory Setting

Federal and state laws and regulations pertaining to hydrology and water quality and relevant to the Project are discussed in Appendix B. Local goals, policies, or regulations applicable to the Project with respect to hydrology and water quality are presented below.

4.9.2.1 Local Regulations

Ventura County General Plan

Local Policies outlined in the County of Ventura General Plan; Water Resources Element (2020) that may be applicable to the proposed Project are listed below:

- **Policy WR-1.2: Watershed Planning**. The County shall consider the location of a discretionary project within a watershed to determine whether or not it could negatively impact a water source. As part of discretionary project review, the County shall also consider local watershed management plans when considering land use development.
- **Policy WR-1.12/WR-2.2: Water Quality Protection for Discretionary Development.** The County shall evaluate the potential for discretionary development to cause deposition and discharge of sediment, debris, waste and other pollutants into surface runoff, drainage systems, surface water bodies, and groundwater. The County shall require discretionary development to minimize potential deposition and discharge through

point source controls, stormwater treatment, runoff reduction measures, BMPs, and low impact development.

As outlined within the Water Resources Element of the General Plan, The County of Ventura Coastal Zoning Ordinance (CZO) regulates all proposed development in the Coastal Zone of Ventura County. This ordinance requires development to be undertaken in accordance with conditions and requirements established by the Ventura Countywide Stormwater Quality Management Program, NPDES Permit No. CAS063339 and the Ventura Stormwater Quality Management Ordinance No. 4142 and as these permits and regulations may be amended.

- Construction activity including clearing, grading or excavation that requires a grading permit shall be undertaken in accordance with any conditions and requirements established by the NPDES Permit or other permits which are reasonably related to the reduction or elimination of Pollutants in Stormwater from the construction site.
- Preparation of a Stormwater Pollution Control Plan or Stormwater Pollution Prevention Plan for construction activities.
- Generally new development or redevelopment projects affecting 5,000 square feet or greater must incorporate post-construction stormwater quality design principals; details are provided in the Ventura County Technical Guidance Manual for Stormwater Quality Control Measures.

Additionally, the County of Ventura Building Code states that submittal of grading plans during the permitting process requires an applicant to evaluate soils and geology and site drainage patterns prior to grading. Site design must include measures to detain or retain stormflows so that runoff is not appreciably different post-development. Design must include measures to prevent erosion of slopes, such as vegetation, soil stabilizers, and riprap. The County of Ventura requires (Building Code Section J112) that BMPs be used to prevent erosion and stormwater flows from discharging offsite.

Coastal Area Plan (CAP)

Local policies from the Ventura County CAP (2021a) applicable to this area with respect to hydrology and water quality are listed below.

- **Policy 1.3.2.2**: Discretionary development shall comply with all applicable County and State water regulations.

- **Policy 1.3.2.4**: Discretionary development shall not significantly impact the quantity or quality of water resources within watersheds, groundwater recharge areas or groundwater basins.

4.9.3 Significance Criteria

Surface Water Quantity. Ventura County Initial Study Assessment Guidelines (ISAG) significance thresholds for surface water quantity are not applicable to the proposed Project because the Project would not divert or consume surface water.

Surface Water Quality. The following significance thresholds are from the Ventura County ISAG and may be applicable to the proposed Project:

1. Any land use or project proposal that is expected to individually or cumulatively degrade the quality of surface water, causing it to exceed water quality objectives of the Basin Plan may have a significant impact.
2. Any land use or project development that directly or indirectly causes stormwater quality to exceed water quality objectives or standards in the County's Municipal Stormwater MS4 Permit or any other NPDES Permits may have a significant impact.

Groundwater Quantity. The following significance thresholds are taken from the Ventura County ISAG and may be applicable to the proposed project:

1. Any land use or project that will directly or indirectly decrease, either individually or cumulatively, the net quantity of groundwater in a groundwater basin that is overdrafted or creates an overdrafted groundwater basin shall be considered to have a significant groundwater quantity impact.
2. In groundwater basins that are not overdrafted, or are not in hydrologic continuity with an overdrafted basin, net groundwater extraction that will individually or cumulatively cause overdrafted basin(s), shall be considered to have a significant groundwater quantity impact.
3. In areas where the groundwater basin and/or hydrologic unit condition is not well known or documented and there is evidence of overdraft based upon declining water levels in a well or wells, any proposed net increase in groundwater extraction from that groundwater basin and/or hydrologic unit shall be considered to cause a significant groundwater quantity impact until such time as reliable studies determine otherwise.

4. Any land use or project which would result in 1.0 acre-feet, or less, of net annual increase in groundwater extraction is not considered to have a significant project or cumulative impact on groundwater quantity.
5. Any project that is inconsistent with any of the policies or development standards relating to groundwater quantity of the Ventura County General Plan Goals, Policies and Programs or applicable Area Plan, may result in a significant environmental impact.

Groundwater Quality. Ventura County ISAG significance thresholds for groundwater quality are not applicable to the proposed Project because the Project would not adversely affect water quality in a California Department of Water Resources defined groundwater basin or aquifer.

4.9.4 Impact Analysis and Mitigation

The following sections discuss potential impacts to surface water quality and groundwater quantity associated with implementation of the proposed Project.

Since Ventura County ISAG thresholds are focused on defined groundwater basins or aquifers that are not present at the Project sites, a discussion of groundwater quality impacts (as they relate to proposed remediation activities) is more applicably included in Section 4.8, Hazards and Hazardous Materials above.

Impact HWQ-1: Construction-related Erosion and Sedimentation Impacts to Marine and Onshore Water Quality

Stormwater runoff from Project decommissioning areas may degrade surface water quality **(Less than Significant with Mitigation).**

Impact Discussion

Rincon Island

Stormwater runoff from the Island during decommissioning activities may include sediment and hydrocarbon-contaminated soils and degrade ocean water quality. The Project would require coverage under the Construction Stormwater General Permit Order 2022-0057-DWQ (adopted September 8, 2022). As required by the conditions of the General Permit, a Storm Water Pollution Prevention Plan (SWPPP) would be prepared, which would include best management practices to be implemented and a monitoring program. The intent of the SWPPP would be to prevent Project-related pollutants from contacting surface water and prevent products of erosion from moving off-site into receiving waters. With the implementation of **MM HWQ-1**, the impact to water quality would be less than significant.

Public Facilities Retention Option

The Public Facilities Retention Option would not include any components that would significantly change potential erosion and sedimentation impacts anticipated at Rincon Island. With the implementation of **MM HWQ-1**, the impact to water quality would be less than significant.

SCC Parcel

Option 1: Native Revegetation and Access Improvements

Although activities would occur primarily by hand, stormwater runoff from areas of exposed soil associated with non-native plant removal and revegetation activities and removal of coastal hazards may degrade ocean water quality. With the implementation of **MM HWQ-1,** the impact would be less than significant.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

Option 2 would require all of the work activities described in Option 1, but would also require installation of a cobble back berm under this area, requiring a significant volume of excavation and grading, as well as additional 10 workdays (2 weeks) of construction equipment onsite. Stormwater runoff from areas of exposed soil associated with non-native plant removal, revegetation, and cobble placement activities may degrade ocean water quality. With the implementation of **MM HWQ-1,** the impact would be less than significant.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

Option 3 would include all of the work activities described in Option 1, as well as require an additional 15 workdays (3 weeks) of construction to install approximately 360 cubic yards of riprap along the parcel frontage. During this time, stormwater runoff from areas of exposed soil associated with non-native plant removal, revegetation, and riprap placement activities may degrade ocean water quality. With the implementation of **MM HWQ-1,** the impact would be less than significant.

Onshore Pipeline Connections

Project activities at the OPC would require minimal ground disturbance that would be subject to stormwater runoff. Additionally, with the implementation of **MM HWQ-1,** the impact would be less than significant.

Onshore Facility

The options below include the installation of a physical barrier (sheet pile wall) between the Onshore Facility and the adjacent privately-owned Coast Ranch parcel to prevent ongoing groundwater contamination from the site. It is important to note that this sheet pile wall would not be necessary if remediation activities at the Coast Ranch parcel were proposed to occur at the same time as the Project.

<u>Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation</u>

Option 1 requires minimal construction activities to leave the existing contaminated soil in place, therefore significant stormwater runoff during construction is not anticipated. Regardless, with the implementation of **MM HWQ-1,** the impact would be less than significant.

<u>Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation</u>

Option 2 would require excavation of approximately 0.48 acre within the Onshore Facility, which would require use of equipment onsite for excavation and import and export of dirt for approximately 45 workdays (9 weeks). Stormwater runoff from areas of exposed soil associated with excavating contaminated soil and placing backfill may degrade surface water quality. With the implementation of **MM HWQ-1**, the impact would be less than significant.

<u>Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation</u>

Option 3 would require equipment access to the Onshore Facility for approximately 57 workdays (12 weeks). In addition to the soil excavation areas, Option 3 requires use of a 0.42-acre area west of Los Sauces Creek for soil treatment. Stormwater runoff from areas of exposed soil associated with excavating contaminated soil and land treatment (including weekly tilling for 6 years) may degrade surface water quality. The approximately 6 years of land treatment activities would result in a substantially greater potential for stormwater-related water quality degradation. However, with the implementation of **MM HWQ-1**, the impact would be less than significant.

Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation

Option 4 would require equipment access to the Onshore Facility for approximately 55 workdays (11 weeks) to perform in-situ soil mixing with a cement agent. Approximately 10 workdays (2 weeks) would also be required for in-situ groundwater bioremediation activities. Stormwater runoff from areas of exposed soil associated with soil mixing activities may degrade surface water quality. With the implementation of **MM HWQ-1**, the impact would be less than significant.

Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation

Option 5 would reduce construction timing to approximately 25 workdays (5 weeks), and within a more focused work area for excavation. Approximately 10 workdays (2 weeks) would also be required for in-situ groundwater bioremediation activities. Similar to Option 2, stormwater runoff from areas of exposed soil associated with excavating contaminated soil and placing backfill may degrade surface water quality. With the implementation of **MM HWQ-1,** the impact would be less than significant.

Mitigation Measure

MM HWQ-1: Storm Water Pollution Prevention Plan. CSLC shall prepare and implement a SWPPP, including:

- All fueling and maintenance of vehicles and heavy equipment shall occur in designated areas at least 50 feet from waterways. Designated areas shall include spill containment devices (e.g., drain pans) and absorbent materials to clean up spills
- Vehicles and equipment shall be maintained properly to prevent leakage of hydrocarbons and other fluids
- Any accidental spill of hydrocarbons or other fluids that may occur at the work site shall be cleaned immediately. Spill containment devices and absorbent materials shall be maintained on the work site for this purpose. The Governor’s Office of Emergency Services shall be notified

immediately in the event of a reportable quantity accidental spill to ensure proper notification, clean up, and disposal of waste.

- Waste and debris generated during construction shall be stored in designated waste collection areas and containers away from drainage features, and shall be disposed of regularly
- Storm water pollution prevention best management practices such as installation of rumble strips at entrances and exits to remove tracked dirt and placement of sandbags to direct runoff around any established drainages shall be used around the construction area perimeters during construction and around any construction operations that could potentially degrade water quality
- Erosion and sedimentation best management practices (e.g., silt fences, straw wattles, mulching, and hydroseeding) shall be installed properly and maintained regularly. Other best management practices shall be implemented as necessary and as required by Project permits.
- Runoff shall be conveyed to prevent erosion from slopes and channels and directed to engineered drainage facilities
- Disturbed slopes shall be re-vegetated with appropriate native vegetation, when feasible

Impact HWQ-2: Construction-related Water Consumption Impacts on Groundwater Resources

Potable water usage for Project decommissioning activities may adversely affect groundwater resources **(Less than Significant).**

Impact Discussion

The proposed Project would utilize potable water from the Casitas Municipal Water District that (in part) is provided by managed groundwater basins (Upper Ventura River Groundwater Basin and Ojai Valley Groundwater Basin). Based on the options selected, the proposed Project would use a total of about 3.0 to 7.3 acre-feet of potable water. Peak year potable water use would be 2.65 acre-feet for island decommissioning activities, which represents 0.02 percent of the average annual groundwater use of these two basins (11,290 acre-feet). Project-related impacts to groundwater management are considered less than significant for the following reasons:

- The Project water demand is small and temporary

- The affected groundwater basins are not currently or projected to be in a state of overdraft
- The Project would not affect implementation of GSPs prepared for the affected basins

Rincon Island

Based on the overall decommissioning area and total workdays (437, see Table 2-9), about 2.7 acre-feet of potable water would be used for dust control. This volume would come from a water source that is not overdrafted (Casitas Municipal Water District), and the proposed volume would not create a significant impact to remaining water levels. A less than significant impact would result.

<u>Public Facilities Retention Option</u>

Since the Operator's building would still be removed under this option and only water and septic piping and buried septic tank retained, water use under this Option would not change. A less than significant impact would result.

SCC Parcel

<u>Option 1: Native Revegetation and Access Improvements</u>

Based on the work area (0.33 acres) and total workdays (10, see Table 2-9), about 0.04 acre-foot of potable water would be used for dust control. An additional 0.08 acre-foot would be used for irrigating the restoration area for one year. Therefore, potable water use would be about 0.12 acre-foot. This volume would come from a water source that is not overdrafted (Casitas Municipal Water District), and the proposed volume would not create a significant impact to remaining water levels. Additionally, in accordance with established thresholds, any land use or project that results in 1.0 acre-foot, or less, of net annual increase is not considered to have a significant impact. Therefore, a less than significant impact would result.

<u>Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm</u>

Based on the work area (0.33 acre) and total workdays (20, see Table 2-9), about 0.12 acre-foot of potable water would be used for dust control. An additional 0.08 acre-foot would be used for irrigating the restoration area for one year. Therefore, potable water use would be about 0.20 acre-foot. This volume would come from a water source that is not overdrafted (Casitas Municipal Water District), and the proposed volume would not create a significant impact to remaining water levels. Additionally, in accordance with established thresholds, any land use or activity that results in 1.0 acre-foot, or less, of net annual increase is not considered to have a significant impact. Therefore, a less than significant impact would result.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

Based on the work area (0.33 acre) and total workdays (25, see Table 2-9), about 0.16 acre-foot of potable water would be used for dust control. An additional 0.08 acre-foot would be used for irrigating the restoration area for one year. Therefore, potable water use would be about 0.24 acre-foot. This volume would come from a water source that is not overdrafted (Casitas Municipal Water District), and the proposed volume would not create a significant impact to remaining water levels. Additionally, in accordance with established thresholds, any land use or project that results in 1.0 acre-foot, or less, of net annual increase is not considered to have a significant impact. Therefore, a less than significant impact would result.

Onshore Pipeline Connections

Although areas around the vault box would not be disturbed (other than vehicle parking) during the total workdays (29, see Table 2-9), about 0.02 acre-foot of potable water would be used for dust control. An additional 0.01 acre-foot would be used to prepare the cement slurry used to fill the pipelines and casing. Therefore, the total potable water use would be about 0.03 acre-foot. This volume would come from a water source that is not overdrafted (Casitas Municipal Water District), and the proposed volume would not create a significant impact to remaining water levels. Additionally, in accordance with established thresholds, any land use or project that results in 1.0 acre-foot, or less, of net annual increase is not considered to have a significant impact. Therefore, a less than significant impact would result.

Onshore Facility

Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation

Soil disturbance would be limited to access in and out of the facility and adding surface cap material. Based on the total work area (approximately 0.48 acre) and workdays (22, see Table 2-9), about 0.17 acre-foot of potable water would be used for dust control. This volume would come from a water source that is not overdrafted (Casitas Municipal Water District), and the proposed volume would not create a significant impact to remaining water levels. Additionally, in accordance with established thresholds, an activity that results in 1.0 acre-foot, or less, of net annual increase is not considered to have a significant impact. Therefore, a less than significant impact would result.

<u>Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation</u>

Based on the total work area (including approximately 0.48 acres for earthwork and access in and out of the Facility) and soil excavation workdays (45, see Table 2-9), about 1.02 acre-feet of potable water would be used for dust control. This volume would come from a water source that is not overdrafted (Casitas Municipal Water District), and the proposed volume would not create a significant impact to remaining water levels. A less than significant impact would result.

<u>Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation</u>

Based on the total work area (including approximately 0.48 acre for earthwork and access in and out of the Facility) and soil excavation workdays (57, see Table 2-9), about 1.36 acre-feet of potable water would be used for dust control. In addition, about 0.54 acre-foot of potable water would be used each year for watering the land treatment area. Therefore, peak year annual potable water use would be about 1.90 acre-feet. This volume would come from a water source that is not overdrafted (Casitas Municipal Water District), and the proposed volume would not create a significant impact to remaining water levels. A less than significant impact would result.

<u>Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation</u>

Based on the total work area (approximately 0.48 acre associated with earthwork for in-situ soil mixing and access in and out of the Facility) and soil mixing workdays (55, see Table 2-9), about 1.02 acre-feet of potable water would be used for dust control. In addition, about 0.02 acre-foot of potable water would be used to prepare cement for soil mixing. Therefore, the total potable water use would be about 1.04 acre-feet. This volume would come from a water source that is not overdrafted (Casitas Municipal Water District), and the proposed volume would not create a significant impact to remaining water levels. A less than significant impact would result.

Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation

Based on the total work area (approximately 0.12 acre of earthwork and access in and out of the Facility) and soil excavation workdays (25, see Table 2-9), about 0.58 acre-foot of potable water would be used for dust control. This volume would come from a water source that is not overdrafted (Casitas Municipal Water District), and the proposed volume would not create a significant impact to remaining water levels. Additionally, in accordance with established thresholds, any land use or project that results in less than 1.0 acre-foot, or less of net annual increase is not considered to have a significant impact. Therefore, a less than significant impact would result.

Mitigation Measures

None required.

Impact HWQ-3: Remediation and Discharge of Groundwater on the Onshore Facility Discharge of treated contaminated groundwater to the local sewer system may result in surface water quality degradation **(Less than Significant).**

Remediation activities at Rincon Island would include utilization of a vacuum truck to dispose of any encountered contaminated interstitial water. Therefore, the discussion below is focused on activities that are proposed at the Onshore Facility only. There are no remediation activities proposed or necessary at the SCC Parcel or OPC.

Impact Discussion

Onshore Facility

The proposed Project includes remediation of existing contamination of perched[13] groundwater at the Onshore Facility and would not affect any aquifers or recognized groundwater basins. Remediation of this groundwater would substantially reduce the potential for migration of on-site soil and groundwater contamination into ocean waters, which would result in beneficial effects.

Groundwater extracted during remediation of the Onshore Facility would be treated onsite to remove hydrocarbons through a pump and treat groundwater remediation system (Section 2.3.4.1) and then discharged to the North Coast Sewer System that is operated by Ventura County. This system is a septic tank effluent pump system that ultimately discharges to the City of Ventura Water Reclamation Facility, that operates under NPDES Permit No. CA0553651 issued by the LARWQCB.

Discharge of treated contaminated groundwater under the City's NPDES permit would require approval by Ventura County and the City of Ventura, which would include limitations on contaminants such as petroleum hydrocarbons to ensure compliance with the Ventura Water Reclamation Facility's discharge limitations in the NPDES Permit. Treated groundwater would be tested prior to discharge to ensure these contaminant limitations are not exceeded. Based on proposed testing and compliance with contaminant limitations, potential impacts to surface water quality in the Santa Clara River Estuary are considered less than significant.

Mitigation Measures

None required.

4.9.5 Cumulative Impacts Analysis

Impact HWQ-4: Potential for Cumulative Water Quality Impacts

Temporary Project-related water quality impacts would incrementally contribute to cumulative impacts if other projects were conducted at the same time in this location **(Less than Significant with Mitigation).**

13 Unconfined groundwater that is above the water table in the unsaturated zone, but trapped by a layer of low-permeability material, such as clay, that prevents it from draining downward. Perched groundwater forms a "lens" or mound of saturated material above the impermeable layer.

Impact Discussion

The Project may contribute to cumulative water quality impacts associated with stormwater runoff from other nearby construction sites such as the Caltrans Cold Plane and Overlay Project, or if remediation at the Coast Ranch parcel were to occur simultaneously with the proposed Project. With the implementation of **MM HWQ-1**, the cumulative impact would be less than significant.

Mitigation Measures

MM HWQ-1: Storm Water Pollution Prevention Plan

4.9.6 Summary of Impacts and Proposed Mitigation Measures

Table 4.9-2. Summary of Hydrology and Water Quality Impacts and Mitigation Measures

Impact	Mitigation Measures
Impact HWQ-1: Construction-related Erosion and Sedimentation Impacts to Marine and Onshore Water Quality	**MM HWQ-1**: Storm Water Pollution Prevention Plan
Impact HWQ-2: Construction-related Water Consumption Impacts on Groundwater Resources	None Required
Impact HWQ-3: Remediation and Discharge of Groundwater on the Onshore Facility	None Required
Impact HWQ-4: Potential for Cumulative Water Quality Impacts	**MM HWQ-1**: Storm Water Pollution Prevention Plan

4.10 LAND USE AND PLANNING

This section describes existing land use and planning conditions within the vicinity of the proposed Project sites, identifies applicable land use plans and significance thresholds, assesses the proposed Project's land use impacts and their significance, and recommends measures to avoid or substantially reduce any effects found to be potentially significant.

4.10.1 Environmental Setting

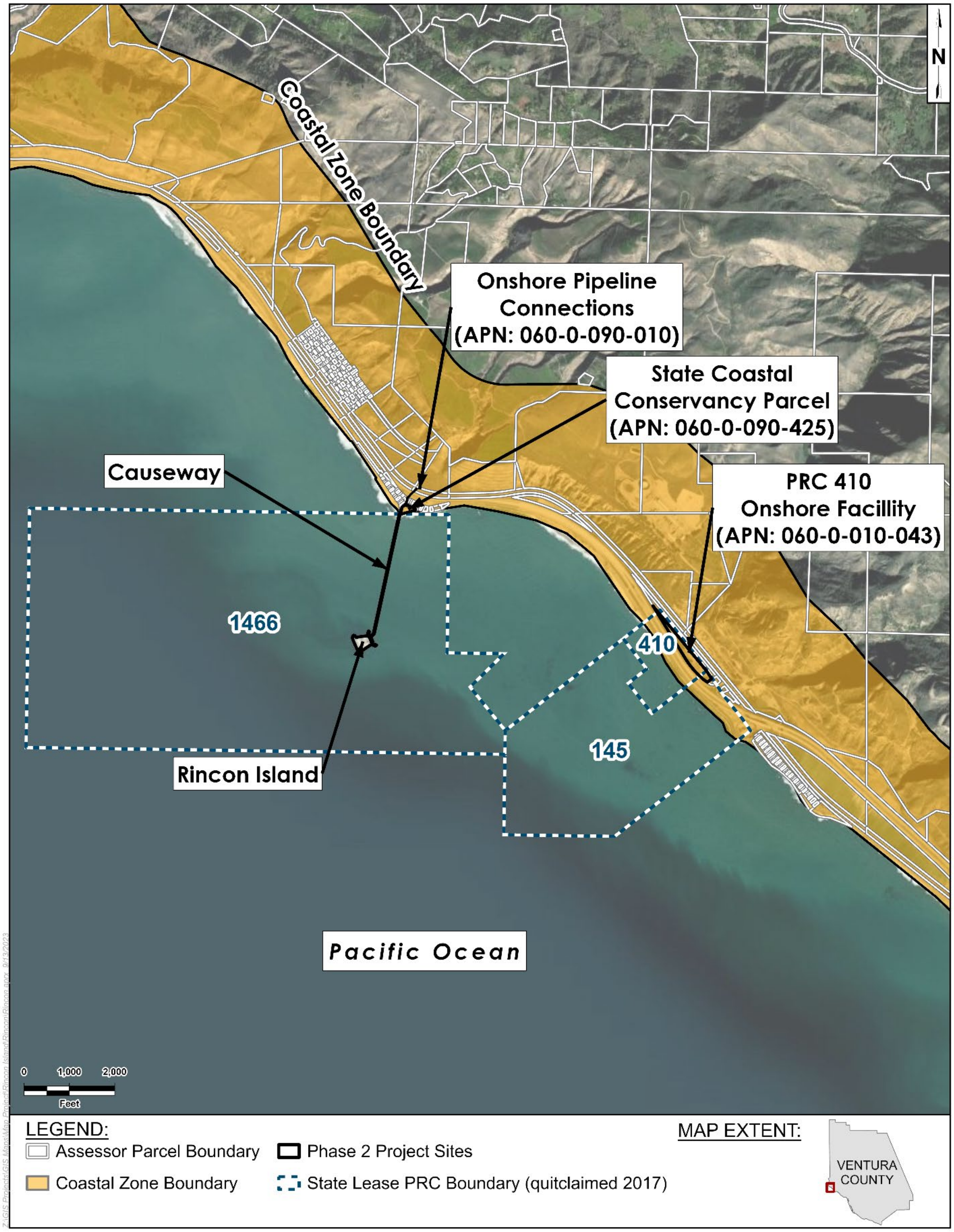
The Project sites are located along the coastline of unincorporated Ventura County, approximately 0.5 mile south of the community of La Conchita. Specifically, Rincon Island is located approximately 3,000 feet offshore of Punta Gorda in Ventura County, immediately offshore of the coastal community of Mussel Shoals. Rincon Island and the causeway were formerly utilized in support of oil and gas operations offshore, but most of the former oil and gas production equipment was removed during Phase 1 activities, and the Island is currently in caretaker status. The SCC Parcel is located just east of the causeway abutment and is currently vacant, with the exception of a mix of native and non-native vegetation and informal trails leading to Mussel Shoals Beach.

The Onshore Facility is located 1.3 miles to the east of Rincon Island at 5750 W. PCH, Ventura. All oil and gas production related buildings, equipment, and materials were previously removed from the Onshore Facility site, and the site surface currently consists of bare dirt and recycled asphalt aggregate base.

Rincon Island and the Onshore Facility were previously connected by a pipeline system, until they were disconnected as part of Phase 1. The OPC vault is located alongside the UPRR right-of-way that contains the disconnected pipelines.

As shown in Figure 4.10-1, the Project sites are located within the coastal zone in the unincorporated area of Ventura County. Several of the Project sites are located partially within or below the mean high tide line (MHTL) (including a portion of the SCC Parcel, Rincon Island, and the causeway), that are under the jurisdiction of the CCC. The remaining portions are located above the MHTL (including the upper portion of the SCC Parcel, the OPC, and Onshore Facility) and are under the jurisdiction of Ventura County and the CCC.

Figure 4.10-1. Jurisdictional Land Use



4.10.1.1 CSLC Management

As shown on Figure 4.10-1, the Project sites include State Tidelands and Submerged Lands identified as former leases PRC 1466, 145, and 410. Oil wells were drilled from Rincon Island or the Onshore Facility into each of these lease areas. Former lease PRC 1466 includes Rincon Island and the causeway. The Onshore Facility occupies the areas of former leases PRC 145 and 410. The leases were quitclaimed (transferred) when Rincon Island Limited Partnership, the most recent lessee of these lands, transferred its lease interests to CSLC after becoming financially insolvent.

4.10.1.2 Project Parcels and Easements

Several parcels are included in the onshore Project sites. The SCC Parcel is located within Ventura County Assessor's Parcel Number (APN) 060-0-090-425. The OPC is located within Ventura County APN 060-0-090-010. The Onshore Facility is located within Ventura County APN 060-0-010-043.

4.10.1.3 County of Ventura Land Use and Zoning Designations

Portions of the onshore Project sites are located within the Ventura County Coastal Area Plan North Coast Planning Area. A summary of land use and zoning designations for the Project sites are provided below. Rincon Island and the causeway are located offshore and are not included within the County's coastal planning area.

Land Use Designations. The SCC Parcel is located within the Mussel Shoals Beach Community, which has a land use designation in support of residential development (residential low, 1 to 2 dwelling units per acre). The OPC vault area and Onshore Facility are located within an area designated for open space (Ventura County 2014).

Zoning Designations. The SCC Parcel is located within an area that has been zoned in support of residential development (Residential Beach, 3,000 square feet). The OPC vault and Onshore Facility are located within areas zoned as Coastal Open Space (COS) (Ventura County 2016).

4.10.1.4 Surrounding Land Uses

The Project sites are located along the coast in Ventura County. This area primarily includes a mix of residential shoreline development, beaches, and open space. U.S. Highway 101, PCH, and the UPRR tracks are prominent features between the hillsides and coastal areas.

The causeway runs from shore out to approximately 3,000 feet offshore, where Rincon Island is located. The nearshore and offshore areas are currently utilized primarily in support of recreational uses, including fishing and surfing. The SCC Parcel is located onshore south of the Mussel Shoals residential community adjacent to Mussel Shoals Beach. This area is zoned for residential development of single-family homes and is commonly utilized for shoreline access to Mussel Shoals Beach and recreational activities offshore. A bike path is also present along the southbound shoulder of U.S. Highway 101 that connects several beachside communities in the North Coast planning area (further described in Section 4.12 Recreation).

The Onshore Facility is located between U.S. Highway 101 and Old Pacific Coast Highway (Old PCH), within an area that is industrial in nature and adjacent to oil field operations to the northeast. This stretch of coastline is a busy transportation corridor, and also provides recreational camping opportunities along PCH to the west of the Project site. A fire station is located adjacent to the eastern boundary of the property.

The Onshore Facility was previously cleared during Phase 1 activities. The Coast Ranch property is located adjacent and upgradient to the Onshore Facility. Access to the Onshore Facility is from a gate leading through the Coast Ranch property. These two properties were formerly utilized in support of oil and gas processing facilities but are now vacant.

4.10.2 Regulatory Setting

There are no federal regulations, authorities, or administering agencies that regulate land use that are specifically applicable to the proposed Project. State laws, regulations, and policies regarding land use, including CCA policies, are discussed in Appendix B. Local laws, regulations, and policies are discussed below and in related impact sections throughout this EIR. The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the common law Public Trust Doctrine.

4.10.2.1 Local

Ventura County 2040 General Plan

Conservation and Open Space Element

Local Policies outlined in the County of Ventura General Plan Conservation and Open Space Element (Ventura County 2020) includes the following policies that are also applicable:

- **Policy COS-9.3: Open Space and Preservation**. The County shall place a high priority on preserving open space lands for recreation, habitat protection, wildlife movement, flood hazard management, public safety, water resource protection, and overall community benefit.

Coastal Area Plan

Implementation of CCA policies is accomplished primarily through the preparation of local coastal programs (LCPs) that are required to be completed by each of the counties and cities located in whole or in part in the coastal zone. Completed LCPs must be submitted to the CCC for review and approval. Following certification of an LCP, coastal development permit (CDP) authority is delegated to the local jurisdiction, but the CCC retains original permit jurisdiction over certain specified lands (such as tidelands and Public Trust lands). The CCC also has appellate authority over development approved by local governments in specified geographic areas as well as certain other developments (e.g., oil and gas projects).

Ventura County's Coastal Area Plan (CAP) and Coastal Zoning Ordinance (CZO) constitute the Local Coastal Program for the unincorporated portions of Ventura County's coastal zone. As such, onshore Project components above the MHTL within the County coastal zone would be subject to a review of local land use consistency with the LCP policies and would also require a CDP from the CCC. The standard of review for the CCC includes the policies included in Chapter 3 of the CCA.

Coastal Area Plan and Coastal Zoning Ordinance

The Ventura County CAP was last amended on October 19, 2021, by the Board of Supervisors, and these amendments were certified by the CCC on September 9, 2022. The CAP is an element of Ventura County's General Plan, and specifically applies to development in the unincorporated portions of the

Coastal Zone of Ventura County. The CZO contains the comprehensive zoning regulations for the unincorporated coastal zone of the County of Ventura.

Relevant policies from the Ventura County General Plan CAP pertaining to land use as it relates to the proposed Project are as follows (please see Appendix B for full text of Coastal Act Policies also included in Chapter 2 of the Ventura County CAP):

CAP Chapter 2

- **CCA Section 30210**: Access, Recreational Opportunities; Posting
- **CCA Section 30211**: Development Shall Not Interfere with Coastal Access
- **CCA Section 30220**: Protection of Certain Water-Oriented Activities
- **CCA Section 30221**: Oceanfront Land; Protection for Recreational Use and Development
- **CCA Section 30222**: Private lands, Priority of Development Purposes
- **CCA Section 30223**: Upland Areas
- **CCA Section 30230**: Marine Resources; Maintenance
- **CCA Section 30231**: Biological Productivity; Water Quality
- **CCA Section 30232**: Oil and Hazardous Substance Spill
- **CCA Section 30234.5**: Economic, Commercial, and Recreational Importance of Fishing
- **CCA Section 30235**: Construction Altering Natural Shoreline
- **CCA Section 30240**: Environmentally Sensitive Habitat Areas, Adjacent Developments
- **CCA Section 30244**: Archaeological and Paleontological Resources
- **CCA Section 30251**: Scenic and Visual Qualities
- **CCA Section 30252**: Maintenance and Enhancement of Public Access
- **CCA Section 30253**: Minimization of Adverse Impacts

CAP Chapter 4

- **Archaeology: Policy 1**. Discretionary development shall be reviewed to identify potential locations for sensitive archaeological resources.
- **Archaeology: Policy 2**. New development shall be sited and designed to avoid adverse impacts to archaeological resources to the maximum

extent feasible. If there is no feasible alternative that can eliminate all impacts to archaeological resources, then the alternative that would result in the fewest or least significant impacts to resources shall be selected. Impacts to archaeological resources that cannot be avoided through siting and design alternatives shall be mitigated. When impacts to archaeological resources cannot be avoided, mitigation shall be required and shall be designed in accordance with established federal, state and/or County standards and shall be consistent with the policies and provisions of the LCP.

- **Archaeology: Policy 5**. Native American tribal groups approved by the NAHC for the area shall be consulted when development has the potential to adversely impact archaeological resources.
- **Archaeology: Policy 6**. Protect and preserve archaeological resources from destruction and avoid impacts to such resources where feasible.
- **Archaeology: Policy 7**. The unauthorized collection of archaeological artifacts is prohibited.
- **Paleontology: Policy 1**. Discretionary development shall be reviewed to determine the geologic unit(s) to be impacted and paleontological significance of the geologic rock units containing them.
- **Paleontology: Policy 3.** Protect and preserve paleontological resources from destruction and avoid impacts to such resources where feasible.
- **Paleontology: Policy 4**. The unauthorized collection of paleontological artifacts is prohibited.
- **ESHA Protection Policy 1.1: Environmentally Sensitive Habitat Areas (ESHA).** ESHA shall be protected against any significant disruption of habitat values, and only uses dependent upon those resources shall be allowed within those areas, except as specifically allowed in ESHA Policy 4.1(b) and Policy 4.2 below. In those cases, adverse impacts on ESHA shall be avoided, to the maximum extent feasible, and unavoidable impacts shall be minimized and mitigated.
- **ESHA Protection Policy 1.2: Development Adjacent to ESHA**. Development in areas adjacent to ESHA shall be sited and designed to prevent impacts which would significantly degrade ESHA and shall be compatible with the continuance of the habitat.
- **ESHA Protection Policy 1.3: Coastal Waters, Wetlands, and Marine Resources.** Protect, maintain and, where feasible, restore the biological

productivity and quality of coastal waters, streams, wetlands, estuaries, lakes, and marine resources.

- **Allowable Uses in ESHA or Buffer Zone: Policy 4.1**. Allowable uses in ESHA or buffer zone shall be limited to the resource-dependent and non-resource-dependent uses identified below. When a new use is allowed in ESHA or buffer zone, the associated development shall be the minimum amount necessary, shall constitute the least environmentally damaging alternative (see ESHA Policy 5.1), and shall be sited and designed in accordance with the policies and provisions of the LCP.
- **ESHA Siting and Design Techniques for Development Policy 5.1: Least Environmentally Damaging Alternative.** Development, including the fuel modification zone, shall be sited and designed to protect ESHA against any significant disruption of habitat values and avoid adverse impacts to the ESHA ecosystem (both onsite and Offsite). Where development is permitted in ESHA or buffer zone pursuant to ESHA policies 4.2 and 4.3 – Economically Beneficial Use, such development shall be sited and designed to protect ESHA and avoid adverse impacts to the ESHA ecosystem to the maximum extent feasible. If there is no feasible alternative that avoids all impacts, then the alternative that would result in the fewest or least significant impacts shall be selected. Mitigation shall not be used as a substitute for the selection of the least damaging site-design alternative. During the least damaging alternatives analysis, an applicant shall confirm the width of the proposed fuel modification zone with the Ventura County Fire Protection District. A least damaging alternatives analysis shall include evaluation of the proposed fuel modification zone and maximum allowable expanded zone. A least damaging alternatives analysis is not required for a project that is limited to expanding upon an existing fuel modification zone for existing, legally established development.
- **ESHA Siting and Design Techniques for Development Policy 5.10: Water Quality and Coastal Waters.** Development shall be sited and designed to protect water quality and minimize impacts to wetlands, wet environments, and coastal waters. When appropriate, utilize open space restrictions to protect such areas from adverse impacts associated with the development.
- **ESHA Siting and Design Techniques for Development Policy 5.12: Invasive Plants.** To reduce the spread of invasive or invasive watch list plant or animal species, landscaping shall primarily consist of native, drought-

tolerant vegetation and be designed in accordance with BMPs developed for reducing the spread of such species.

- **ESHA Siting and Design Techniques for Specific Coastal Habitats Policy 6.4: Nearshore Water Environments.** To reduce impacts on nearshore shallow water environments that are used by fish, shellfish, birds, and other aquatic organisms, BMPs and other mitigation measures shall be used within development to protect the water quality of terrestrial wet environments connected to the Pacific Ocean. Adverse impacts to coastal resources shall be prevented by timing the construction of the project to avoid disruption of breeding and/or nesting of birds or fishes. Development shall be sited to avoid coastal hazards, taking into account projected SLR, and to allow for the migration of habitat areas to the maximum extent feasible.
- **ESHA Siting and Design Techniques for Specific Coastal Habitats Policy 6.5: Shorebird Populations.** Beach maintenance activities shall not adversely impact nesting and foraging shorebird populations.
- **ESHA Siting and Design Techniques for Specific Coastal Habitats Policy 6.8: Shoreline Protection Devices.** When shoreline protective devices, such as revetments, seawalls, groins, or breakwaters are permitted, they shall incorporate mitigation measures that reduce intertidal or nearshore habitat losses and impacts on local shoreline sand supply.
- **ESHA Siting and Design Techniques for Specific Coastal Habitats Policy 6.9: Beaches/Intertidal Areas.**
    a) An applicant for any coastal project, including shoreline protective devices, will show that its proposal will not cause long-term adverse impacts on beach or intertidal areas. Impacts include, but are not limited to, shoreline sand supply, destruction of the rocky substrate, smothering of organisms, contamination from improperly treated wastewater or oil, and runoff from streets and parking areas. Findings to be made will include, but not be limited to, proper wastewater disposal.
    b) Placement or removal of any sand, fill, rocks or dredged material along beaches or intertidal areas, including beach replenishment and the creation of new dune habitats, shall be carried out utilizing the best available science that includes, but is not limited to, sea level rise (SLR) projections, and in consultation with the California Department of Fish and Wildlife and other natural resource

agencies. Such activities shall be designed to minimize adverse impacts on beach, intertidal, and offshore coastal resources.

- **Visual Resources: Policy 7.** New development shall be sited and designed to protect public views to and from the shoreline and public recreational areas.
- **Water Efficient Landscaping: Policy 1.** Landscaping shall be sited and designed to protect coastal resources, including environmentally sensitive habitat areas (ESHA), scenic resources, water quality, and water supply.
- **Water Efficient Landscaping: Policy 5.** Landscape design shall be compatible with the character of the surrounding rural, urban, and environmental setting. Compatibility shall be established by minimizing landform alterations and by utilizing new vegetation that is similar in type, size, and scale to the surrounding environment.
- **Water Efficient Landscaping: Policy 6.** Landscaping visible from public viewing areas, including eligible or designated scenic highways, shall not obstruct public views of scenic resources and shall not detract from the area's scenic value.
- **Water Efficient Landscaping: Policy 7.** Landscaping shall not encroach or block coastal access or access to roads, water supplies, or emergency facilities.
- **Water Efficient Landscaping: Policy 11.** Temporary vegetation, seeding, mulching, or other suitable stabilization methods shall be used to protect soils subject to erosion that were disturbed during grading or development. Any plants or seeds used in these stabilization efforts shall be non-invasive.
- **Access Policy 2: Lateral**. For all new development between the first public road and the ocean, granting of lateral easements to allow for public access along the shoreline shall be mandatory unless subsection (a) below is found. In coastal areas, where the bluffs exceed five feet in height, all beach seaward of the base of the bluff shall be dedicated. In coastal areas where the bluffs are less than five feet, the area to be dedicated shall be determined by the County. At a minimum, the dedicated easement shall be adequate to allow for lateral access during periods of high tide. In no case shall the dedicated easement be required to be closer than 10 feet to a residential structure. In addition, all fences, no trespassing signs, and other obstructions that may limit public lateral access shall be removed as a condition of development approval.

a) Findings are made, consistent with Section 30212 of the Act, that access is consistent with public safety, military security needs, or that agriculture would be adversely affected.

- **Access Policy 6: Mussel Shoals Access**. As new funds are available for continuing maintenance, the County will assume responsibility for the lateral accessway dedications that are currently being held by the SCC and the State Lands Commission.
- **Access Policy 22: Signs and Coastal Access.** With the exception of road or informational signs, placement of signs within the public right-of-way shall be prohibited.
- **Hazards: Policy 3**. All new development will be evaluated for its impacts to, and from, geologic hazards (including seismic safety, landslides, expansive soils, subsidence, etc.), flood hazards, and fire hazards. Feasible mitigation measures shall be required where necessary.
- **Beach Erosion: Policy 1**. Construction or maintenance of shoreline structures will be limited to only those projects needed to protect existing development, public recreation, and existing roads from beach erosion.
- **Beach Erosion: Policy 2.** Proposed shoreline protective devices will only be approved and/or located in conformance with Coastal Act Sections 30235 and 30253.
- **Beach Erosion: Policy 3**. All shoreline protective structures that alter natural shoreline processes will be designed to eliminate or mitigate adverse impacts on local shoreline and sand supply.
- **Beach Erosion: Policy 7**. Permitted shoreline structures will not interfere with public rights of access to the shoreline.

4.10.3 Significance Criteria

Land use impacts are considered to be significant if the Project would result in:

- Conflicts with adopted land use plans, policies, or ordinances, including the CCA and Ventura County General Plan/Coastal Area Plan and Coastal Zoning Ordinance
- Incompatible adjacent land uses as defined by planning documentation

4.10.4 Impact Analysis and Mitigation

Based on the nature of discussion regarding the potential for land use impacts, the following analysis includes all of the Project sites. Any potential differences with respect to Project options have been noted.

Impact LU-1: Temporary Conflicts with State and Local Policies

Proposed Project decommissioning activities would have the potential to result in temporary conflicts with State and local policies **(Less than Significant with Mitigation).**

Impact Discussion

The Project sites are located within the coastal zone of unincorporated Ventura County in areas zoned onshore for land uses consistent with residential development and open space. The proposed Project includes decommissioning of the subject facilities in accordance with existing federal, state, and local regulations. The proposed Project activities would prepare Rincon Island and the Onshore Facility for new uses, including but not limited to co-management with sovereign tribal nations, consistent with the Public Trust. There are no proposed changes to land use at this time other than site improvements intended to remediate contaminated soil at Rincon Island and the Onshore Facility, remove unutilized equipment from Rincon Island and the OPC, and enhance public access and shoreline protection at the SCC Parcel.

A review of the Ventura County General Plan, CAP, and CCA Policies applicable to the Project sites was conducted to determine potential land use conflicts over the anticipated 2-year timeframe (with the exception of Onshore Facility Remediation Option 3, where soil treatments would extend over an additional 72 months) of the proposed decommissioning activities. It was determined that the proposed Project would be consistent with land use regulations following incorporation of mitigation measures identified within this EIR as further discussed below.

CCA Policies. Implementation of the proposed Project would return several areas to a more natural condition, and is therefore consistent with CCA Section 30251 regarding scenic and visual qualities.

Regarding biological resources, short-term impacts to biological resources would have the potential to result due to use of construction equipment in proximity to sensitive biological habitat along the coastline at Mussel Shoals

(Rincon Island and causeway and SCC Parcel) and near Los Sauces Creek (Onshore Facility). Additionally, offshore activities would include the use of heavy equipment and construction crews that would create noise and may disturb roosting birds. However, based on previous activities completed to remove equipment and plug and abandon wells onsite during Phase 1, it is anticipated that birds would continue to roost on the seaward tetrapods of the Island or temporarily utilize other nearby areas. Additionally, as discussed in Section 4.3, Biological Resources, **MM BIO-1a, MM BIO-1b, MM BIO-2, MM BIO-3,** and **MM BIO-4** would be incorporated to reduce these potential impacts to less than significant. As such, the proposed Project would be consistent with CCA Sections 30231, 30240, 30232, and 30253 regarding protection of biological resources. Please refer to Section 4.3 (Biological Resources) for additional information.

As discussed within Sections 4.4, Cultural Resources, and 4.5, Tribal Cultural Resources, there are no known archaeological sites located within the Project sites. If unanticipated findings are encountered, **MMs CUL-1/TCR-1** through **CUL-5/TCR-5** would be incorporated to reduce potential impacts, consistent with CCA Section 30244.

As discussed in Sections 4.12 (Recreation) and 4.13 (Transportation), during decommissioning and remediation at Rincon Island, trucks would utilize the existing causeway structure and travel through the Mussel Shoals community to and from U.S. Highway 101 via paved local and private roadways. Although a temporary increase in traffic would result, use of established roadways would not inhibit access to the coastline in this area. Additionally, **MM REC-1** would be incorporated to maximize beach access. These activities are therefore consistent with CCA Sections 30210, 30211, 30252, 30221, and 30223 regarding preservation of public access to the coastline.

With respect to public access, the proposed Project decommissioning activities would not result in the need to inhibit public access to Mussel Shoals Beach other than the short time required to remove non-native vegetation, plant native vegetation, construct access improvements (Option 1), and install additional erosion protection (Options 2 and 3) on the SCC Parcel, which could take from 2 to 6 weeks. Following construction, these activities would improve public access to the beach on the existing informal trails and from the new staircase. As there is currently no public access to the Onshore Facility, no change would occur due to remediation. Please refer to Section 4.12 (Recreation) for additional detail.

Lastly, there are no changes to offshore facilities proposed as part of the proposed Project that would require offshore vessels or preclude commercial or recreational fishing in this area. Therefore, no conflicts to commercial or recreational fishing would result; and the proposed Project is consistent with CCA Section 30220 and 30234.5 regarding water-oriented activities and the importance of fishing. See Section 4.12 (Recreation) and Section 7.2 (Commercial Fishing) for additional detail.

Other Coastal Area Plan Policies. Similar to the discussion above, although the proposed Project includes elements that would ultimately improve the existing condition of Rincon Island, the SCC Parcel, the OPC, and the Onshore Facility through removal of infrastructure, remediation of soils, and SCC Parcel improvements, implementation of the proposed Project would also include some elements that would be temporarily inconsistent with some Sections of the Ventura County CAP and would require mitigation measures to reduce this potential impact to be less than significant.

Specifically, construction equipment would be present for approximately 2 years (with the exception of the Onshore Facility Remediation Option 3, where soil treatments would extend over an additional 72 months). Short-term construction disturbances such as noise, lighting, air quality impacts, potential disturbance to biological resources, and potential impacts resulting from water quality sedimentation, pollution, or runoff could result during this time.

During construction, proposed Project design and mitigation measures would reduce the potential for these impacts as further described in Sections 4.1, Aesthetics; 4.2, Air Quality; 4.3, Biological Resources; 4.4, Cultural Resources; 4.5, Cultural Resources – Tribal; 4.6, Geology and Coastal Processes; 4.8, Hazards and Hazardous Materials; 4.9, Hydrology and Water Quality; 4.12, Recreation; and 4.15, Wildfire. A summary of the incorporated mitigation measures is provided below and in Table 4.10-1. The proposed Project would remain consistent with applicable land use policies and a less than significant impact would result following implementation of mitigation.

Further, in accordance with CAP Visual Resources Policy 7, Landscaping Policies 5 through 7 and 11, and Policy 6.9 regarding beaches and intertidal areas, the proposed SCC Parcel improvements have been designed to minimize potential impacts to shoreline sand supply and existing intertidal habitat and would include native and drought tolerant and water efficient landscaping. The proposed access improvements at the SCC Parcel within Mussel Shoals would be in accordance with Access Policy 6 regarding continuing maintenance.

Although placement of cobble or a riprap revetment for erosion reduction in this area as part of SCC Parcel Options 2 and 3 is consistent with Beach Erosion Policy 1, which is applicable to protection of existing development and roads from beach erosion, if Option 3 is chosen, public access within the riprap installation area would be temporarily restricted.

If selected, SCC Parcel Options 2 or 3 would need to be reviewed by the CCC and Ventura County to review consistency with CCA Sections 30235 and 30253 and ESHA Siting Policy 6.8 regarding shoreline protection structures as well as the SCC regarding consistency with long term land use planning goals onsite.

With the implementation of mitigation measures identified below (Table 4.10-1), the impact would be less than significant.

Mitigation Measures

See Table 4.10-1 for a summary of mitigation measures from other resource sections. No further mitigation measures are proposed.

The proposed Project would be consistent with all applicable land use policies following implementation of the proposed mitigation measures included within this EIR.

4.10.5 Cumulative Impacts Analysis

Impact LU-2: Cumulative Impacts of Project Construction

Impacts to ESHAs and other sensitive biological resources during proposed Project implementation would result in a potentially significant impact. When the cumulative environment is considered, the short-term contribution from the proposed Project could be significant **(Less Than Significant with Mitigation).**

Impact Discussion

Cumulative impacts associated with the proposed Project include the potential to create temporary impacts to similar resources or policy inconsistencies. Other projects anticipated to occur within the region that could contribute to potential coastal construction impacts in the area include the Chevron Decommissioning and Remediation of the Carpinteria Oil and Gas Processing Facilities Project, and remediation activities at the adjacent Coast Ranch parcel.

The Chevron project would also require work within the coastal environment and removal of derelict oil and gas remnant features that would have the potential to generate short-term construction impacts that would be similar in nature to the proposed Project. If the Chevron project were to occur at the same time as the proposed Project decommissioning activities, it would require the introduction of short-term construction equipment for demolition and construction activities. Use of construction equipment in this area would have similar short-term impacts as the proposed Project would have and could contribute to cumulative impacts to air quality, sensitive biological resources, ESHAs, cultural and tribal cultural resources, or localized water quality.

The Coast Ranch remediation activities have not been defined, but could occur at the same time as the proposed Project and would also include a range of options related to remediation of soil and groundwater contamination onsite. These remediation options may also include the introduction of short-term construction equipment that would have similar short-term impacts as the proposed Project and could contribute to cumulative impacts to air quality, sensitive biological resources, cultural and tribal cultural resources, and localized water quality.

However, mitigation measures proposed within Sections 4.2, Air Quality; 4.3, Biological Resources; 4.8, Hazards and Hazardous Materials; and 4.9, Hydrology and Water Quality (as also shown under Impact LU-1) would reduce potential impacts of the proposed Project to less than significant. As such, cumulative impacts due to inconsistencies with land use policies are not anticipated.

Additionally, there are two other projects proposed within Ventura County that include replacement or repair of shoreline protection devices. The Crampton project includes replacement of 100 feet of shoreline protection within the Faria Beach Community, and the Holmgren project includes repair of an existing rock revetment within the Solimar Beach Colony Trust development. Both projects are located approximately 3 to 4 miles downcoast of the proposed Project sites. SCC Parcel Option 3 also includes installation of riprap along the shoreline. Although the parcels are not contiguous, a cumulative installation of shoreline armaments would be cumulatively considerable with respect to littoral processes and shoreline sand supply.

Although CCA Section 30235 indicates that construction altering a natural shoreline shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, it also specifies that it must be designed to eliminate or mitigate any adverse impacts on local shoreline sand supply. Ventura County General Plan Policy COS-2.5 (Shoreline Protective Structure Design) is consistent with CCA Section 30235 regarding the required design parameters. The Ventura County General Plan has also identified the Mussel Shoals beach area as "present use critical" and vulnerable to erosion and wave damage. Therefore, Option 3 would remain consistent with these policies.

With the implementation of mitigation measures identified in Table 4.10-1, the impact would be less than significant .

Mitigation Measures

No further mitigation measures are proposed.

The proposed Project would be consistent with all applicable land use policies following implementation of the proposed mitigation measures included within Table 4.10-1.

4.10.6 Summary of Impacts and Proposed Mitigation Measures

Table 4.10-1. Summary of Potential Land Use Impacts and Mitigation Measures

Impact	Mitigation Measures
Impact LU-1: Temporary Conflicts with State and Local Policies	**MM AES-1a:** Overnight Storage of Equipment **MM AES-1b:** Material Removal at Construction Completion **MM AES-1c:** Minimize Night Lighting **MM AQ-1:** Standard Ventura County Air Pollution Control District Construction Emissions Reduction Measures **MM BIO-1a**: Onshore Facility Nesting Season Avoidance or Pre-Construction Surveys **MM BIO-1b**: Environmental Awareness Training **MM BIO-3**: Monarch Butterfly Avoidance **MM BIO-4**: Pre-Activity Western Snowy Plover Survey **MM CUL-1/TCR-1:** Cultural and Tribal Cultural Resources Management and

Impact	Mitigation Measures
	Treatment Plan **MM CUL-2/TCR-2:** Cultural and Tribal Cultural Resources Monitoring **MM CUL-3/TCR-3**: Cultural and Tribal Cultural Resources Awareness Training **MM CUL-4/TCR-4:** Discovery of Previously Unknown Cultural or Tribal Cultural Resources **MM CUL-5/TCR-5:** Unanticipated Discovery of Human Remains **MM GEO-1:** Grading and Erosion Control Plan **MM GEO-2**: Paleontological Monitoring and Mitigation Plan **MM HAZ-1a:** Remedial Action Plan Implementation **MM HAZ-1b:** Hydrocarbon Contaminated Soil Notification(s) and BMPs **MM HAZ-1c:** Oil Spill Contingency Plan Implementation **MM HAZ-1d:** Hazardous Materials Management and Contingency Plan **MM HAZ-1e:** Asbestos Abatement Workplan **MM HWQ-1:** Storm Water Pollution Prevention Plan **MM REC-1:** Recreational Site Access and Traffic Management Plan **MM WF-1a:** Fire Management and Prevention Plan **MM WF-1b:** Ventura County Noticing Requirements
Impact LU-2: Cumulative Impacts of Project Construction	Same as above

4.11 NOISE

4.11.1 Environmental Setting

4.11.1.1 Basis of Environmental Acoustics and Vibration

Sound is the mechanical energy from a vibrating object that is transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is defined as unwanted sound (i.e., loud, unexpected, or annoying). Acoustics is the physics of sound. A sound source generates pressure waves, the amplitude of which determines the source's perceived loudness. Sound pressure level (SPL) is described in terms of decibel (dB), with near-total silence for human hearing corresponding to 0 dB. When two sources at the same location each produce the same pressure waves, the resulting sound level at a given distance from that location is approximately 3 dB higher than the sound level produced by only one source. For example, if one automobile produces a 70 dB SPL when it passes an observer, two cars passing simultaneously do not produce 140 dB; rather, they combine to produce 73 dB.

The perception of loudness can be approximated by filtering frequencies using the standardized A-weighting system. The "A-weighted" noise level de-emphasizes low and very high frequencies of sound in a manner similar to the human ear's de-emphasis of these frequencies. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. All noise levels reported in this section are in terms of A-weighting.

In typical noisy environments, noise level changes of 1 to 2 dB are generally not perceptible by the healthy human ear. However, people can begin to detect 3 dB increases in noise levels, with a 5 dB increase generally perceived as distinctly noticeable, and a 10 dB increase generally perceived as doubling the loudness. Four sound level descriptors are commonly used in environmental noise analysis:

- Equivalent sound level (Leq): The Leq is the average sound level that contains the same acoustical energy as the time-varying sound that actually occurs during that period
- Maximum sound level (Lmax): The highest instantaneous sound level measured during a specified period
- Day-night average level (Ldn): The energy average of A-weighted sound levels occurring over a 24-hour period, with a 10 dB penalty applied to A-

weighted sound levels occurring during nighttime hours (10:00 p.m. to 7:00 a.m.)

- Community noise equivalent level (CNEL): Similar to Ldn, CNEL is the energy-average of the A-weighted sound levels occurring over a 24-hour period, with a 10 dB penalty applied to A-weighted sound levels occurring during the nighttime hours (10:00 p.m. to 7:00 a.m.) plus a 5 dB penalty applied to the A-weighted sound levels occurring during evening hours (7:00 p.m. to 10:00 p.m.). The CNEL is usually within 1 dB of the Ldn.

Sound from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, and the sound level attenuates (decreases) at a rate of 6 dB each time the distance doubles from a point or stationary source. Roadways, highways, and moving trains (to some extent) consist of several localized noise sources on a defined path; these are treated as "line" sources, that approximate the effect of several point sources. Sound levels attenuate at a rate of 3 dB for each time the distance doubles from a line source. Therefore, noise from a line source decreases less with distance than noise from a point source. To limit population exposure to physically or psychologically significant noise levels, the state and various local cities and counties in the state have established guidelines and ordinances to control noise as discussed in the Regulatory Setting subsection below.

4.11.1.2 Ground-borne Vibration

In contrast to airborne noise, ground-borne vibration is not a common environmental problem. Vibration from sources such as buses and trucks are not usually perceptible, even in locations close to major roads. Some common sources of ground-borne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving, and operating heavy earth-moving equipment.

Ground-borne vibration can cause detectable building floor movement, window rattling, items shaking on shelves or walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction. Human annoyance from vibration can often occur and can happen when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance would be well below the damage threshold for normal buildings.

Vibration is an oscillatory motion that can be described in terms of displacement, velocity, or acceleration. Displacement is the easiest descriptor to understand. For a vibrating floor, the displacement is simply the distance that a point on the floor moves away from its static position. The velocity represents the instantaneous speed of the floor movement and acceleration is the rate of change of the speed. The peak particle velocity (PPV) is defined as the maximum instantaneous positive or negative peak of the vibration signal. PPV is often used in monitoring of blasting vibration since it is related to the stresses that buildings undergo.

4.11.1.3 Site-specific Existing Noise Environment

Rincon Island, the causeway, and the SCC Parcel are located on the Ventura County coast, adjacent to the Mussel Shoals community, PCH, U.S. Highway 101, and the UPRR. The OPC is located on the northeast side of U.S. Highway 101, and the Onshore Facility is located approximately 1.3 miles southeastward, adjacent to U.S Highway 101. Existing ambient noise levels in the vicinity of these areas are largely dictated by traffic noise from U.S. Highway 101 and PCH, surf noise, and occasional rail traffic.

Ambient (baseline) noise measurements were taken using a Larson Davis LXT precision integrating Type 1 noise meter on July 9, 2021, at the Mussel Shoals community, as residences are considered sensitive noise receptors (defined in Section 4.11.2.1 below). These residences may be affected by decommissioning activities at Rincon Island (including use of the causeway), the SCC Parcel, and OPC. Noise measurements were not conducted near the Onshore Facility due to the lack of defined sensitive noise receptors in proximity to this site, however noise modeling was conducted for this area to determine potential affects due to the presence of the Fire Station nearby.

Sound levels were measured using an A-weighted frequency for approximately 15-minute intervals (Leq); and therefore, are representative of daytime noise levels within that time frame only. The first reading was taken adjacent to the residences located at the intersection of Ocean Avenue and Breakers Way. The baseline noise level at this location was measured at 53.9 Leq. The second reading was taken near the eastern terminus of Breakers Way. The baseline noise measurement at this location was recorded at 59.6 Leq. This increase in ambient noise was attributed to being closer to the shoreline and noise from waves breaking. As there is no set date for the commencement of decommissioning activities, anticipated changes to area noise levels in the future were considered. The 2040 Projected Noise Levels for the site vicinity (similar environment) are 66.9 dbA (50 feet from PCH) at the Seacliff Colony community, and 79.5 dbA (50 feet from U.S. Highway 101) at the Ventura/Santa Barbara County Line (Ventura County 2020). Therefore, noise within the community of Mussel Shoals is anticipated to increase over time.

4.11.2 Regulatory Setting

Noise is regulated by a variety of federal, state, and local laws and regulations. Federal and state laws that may be relevant to the Project are identified in Appendix B. Local laws, regulations, and policies are discussed below.

4.11.2.1 Local

Ventura County 2040 General Plan (2020)

Hazard and Safety Element

Local goals, policies, or regulations applicable to this area with respect to noise are limited to Ventura County 2040 General Plan, Hazard and Safety Element Policies, that address new development and land use compatibility with respect to noise. However, only the following policy is applicable to the proposed Project:

- **Policy HAZ-9.2-5**: Construction noise and vibration shall be evaluated and, if necessary, mitigated in accordance with the Construction Noise Threshold Criteria and Control Plan (Advanced Engineering Acoustics November 2005).

Based on the Construction Noise Threshold Criteria and Control Plan, noise-sensitive receptors include:

- Hospitals and nursing homes (sensitive 24 hours per day)
- Residences (sensitive during evening and nighttime (7 p.m. to 7 a.m.)
- Hotels and motels (sensitive during evening and nighttime)
- Schools, churches, and libraries (daytime and evening, when in use)

Project-related decommissioning activities are planned to be limited to 7 a.m. to 5 p.m. on weekdays only; therefore, local residences would not be considered noise-sensitive receptors based on the County of Ventura Construction Noise Threshold criteria. However, if evening or nighttime construction work occurs, the following noise thresholds would apply:

- 50 dBA Leq OR ambient noise level + 3 dBA, for evening construction (7 p.m. to 10 p.m.)
- 45 dBA Leq OR ambient noise level + 3 dBA, for nighttime construction (10 p.m. to 7 a.m.)

4.11.3 Significance Criteria

Noise thresholds provided in the Construction Noise Threshold Criteria and Control Plan, as referenced above by Ventura County 2040 General Plan Policy HAZ-9.2-5, are utilized as thresholds of significance in this EIR.

The Ventura County Initial Study Assessment Guidelines (last updated April 26, 2011) indicate any project involving demolition or excavation may generate vibration resulting in a potentially significant vibration impact. The California Department of Transportation (Caltrans) has published a Transportation and Construction Vibration Guidance Manual (Caltrans 2020), that provides criteria for allowable vibration in terms of potential annoyance to people, as well as potential damage to buildings. The following thresholds for continuous/frequent intermittent sources such as construction equipment are provided by Caltrans (Caltrans 2020), expressed as PPV, inch/second and are used as thresholds of significance in this EIR:

- Human effects: barely perceptible – 0.01; distinctly perceptible – 0.04; strongly perceptible – 0.10
- Damage to structures: fragile buildings – 0.1; older residential – 0.3; new residential and commercial – 0.5

4.11.4 Impact Analysis and Mitigation

Impact N-1: Noise Impacts to Sensitive Receptors
Decommissioning activities would generate temporary noise that may adversely affect sensitive receptors **(Less than Significant).**

Impact Discussion

The results of noise modeling using the Federal Highway Administration's Roadway Construction Noise Model are provided in Table 4.11-1. Note that the nearest noise source is listed in Table 4.11-1, but the analysis includes other sources associated with the peak day noise generating task located farther away. Noise and vibration modeling spreadsheets are provided in Appendix J. Although Ventura County Fire Station 25 is not a residential land use, it was included in the analysis as a residential noise receptor because firefighters spend the night at the Fire Station.

As indicated in Table 4.11-1, temporary noise would be generated during decommissioning activities at each of the Project sites. Project-related decommissioning activities are planned to be limited to daytime hours (7 a.m. to 5 p.m.) during weekdays. Since Project-related noise would not be generated during evening or nighttime hours (7 p.m. to 7 a.m.), nearby residences and Fire Station 25 are not considered noise-sensitive receptors based on the County of Ventura Construction Noise Threshold criteria. Therefore, noise generated by Project decommissioning during daytime hours would result in a less than significant impact. Please see discussion below for anticipated noise that would be generated during each Project activity.

Although potential noise would not exceed established Ventura County thresholds, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities.

Table 4.11-1. Noise Modeling Results

Project Site/ Peak Day Noise Generating Task	Nearest Sensitive Receptor	Distance to Nearest Project Noise Source (feet)	Noise Level at Receptor (dBA Leq)
Rincon Island			
Pavement and Soil Removal	Ocean Avenue Residence (Base of Causeway)	3,050*	60.6
SCC Parcel			
Options 1-3: Remove Coastal Hazards	Breakers Way Residence	50 (excavator)	79.0
Option 2: Placement of Cobble	Ocean Avenue Residence (Base of Causeway)	20 (dump truck)	84.5
Option 3: Placement of Riprap	Ocean Avenue Residence (Base of Causeway)	20 (dump truck)	81.7
Onshore Pipeline Connections			
Pipeline Removal	Residence at Ocean Avenue/Old Pacific	50 (excavator)	78.0

Project Site/ Peak Day Noise Generating Task	Nearest Sensitive Receptor	Distance to Nearest Project Noise Source (feet)	Noise Level at Receptor (dBA Leq)
	Coast Highway Intersection		
Onshore Facility			
Option 1: Construct Asphalt Cap	County Fire Station 25	200 (excavator)	65.9
Options 2, 3, and 5: Soil Excavation	County Fire Station 25	200 (excavator)	66.3
Option 4: Soil Mixing	County Fire Station 25	200 (soil mixing rig)	66.1

*Noise modeling included a heavy-duty truck idling at the base of the causeway

Rincon Island

Baseline noise measurements taken within the Mussel Shoals community were measured between 53.9 to 59.6 Leq. Removal of surface structures, removal of the well bay concrete deck and pavement, removal of contaminated soil and backfill with clean soil would be conducted over an approximately 15-month work period using heavy equipment and motor vehicles that would generate short-term noise. Most noise sources would be located about 3,000 feet from the nearest residence. However, trucks would pass by residences on Ocean Avenue and were included in the noise analysis (per Table 4.13-2, it is estimated that approximately 9 one-way trips per day, on average, would be associated with the decommissioning of Rincon Island). The peak day noise levels associated with Island decommissioning activities is estimated as 60.6 dBA Leq at the nearest residence in Mussel Shoals.

Even though there would be an increase in anticipated noise for the duration of Rincon Island decommissioning activities, work activities would be limited to daytime hours. In accordance with the County of Ventura Construction Noise Threshold criteria, the nearby residences are not considered noise-sensitive receptors between 7 a.m. and 7 p.m.; therefore, a less than significant impact would result.

Although no mitigation is required, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities. Additionally,

MM REC-1 would include a Recreational Site Access and Traffic Management Plan that specifies limitations to trucking hours and idling times that would reduce the potential for noise impacts to the adjacent community.

Public Facilities Retention Option

Since the Operator's building would still be removed under this option and only water and septic piping and buried septic tank retained, heavy equipment and motor vehicle activity and associated noise levels would be similar to the Rincon Island decommissioning noise modeling results. A less than significant impact would result.

SCC Parcel

Option 1: Native Revegetation and Access Improvements

Option 1 would be limited to revegetation, minor improvements (walkway, bench, signage, stairway), and removal of coastal hazards along the shoreline. The peak noise activity for this option would generate a noise level of 79.0 dBA Leq at the nearest residence (see Table 4.11-1).

Even though there would be an increase in anticipated noise for the duration of SCC Parcel Option 1 improvement activities (10 workdays or 2 weeks), work would be limited to daytime hours. Further, coastal hazards removal would occur over only 1 of these anticipated days. In accordance with the County of Ventura Construction Noise Threshold criteria, the nearby residences are not considered noise-sensitive receptors, therefore a less than significant impact would result.

Although no mitigation is required, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities. Additionally, **MM REC-1** would include a Recreational Site Access and Traffic Management Plan that specifies limitations to trucking hours and idling times that would reduce the potential for noise impacts to the adjacent community.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

This option includes the same improvements listed under Option 1 as well as installation of a cobble back berm. The peak noise activity for this option is placement of cobble, which would generate a noise level of 84.5 dBA Leq at the nearest residence (see Table 4.11-1).

Even though there would be an increase in anticipated noise for the duration of SCC Parcel Option 2 improvement activities (20 workdays or 4 weeks), work would be limited to daytime hours. In accordance with the County of Ventura Construction Noise Threshold criteria, the nearby residences are not considered noise-sensitive receptors, therefore a less than significant impact would result.

Although no mitigation is required, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities. Additionally, **MM REC-1** would include a Recreational Site Access and Traffic Management Plan that specifies limitations to trucking hours and idling times that would reduce the potential for noise impacts to the adjacent community.

<u>Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage</u>

This option includes the same improvements listed under Option 1 as well as installation of riprap along the parcel frontage. The peak noise activity for this option is placement of riprap, which would generate a noise level of 81.7 dBA Leq at the nearest residence (see Table 4.11-1). Peak day noise levels would be lower than Option 2 because the riprap placement area is farther away from the nearest residence.

Even though there would be an increase in anticipated noise for the duration of SCC Parcel Option 3 improvement activities (25 workdays or 5 weeks), work would be limited to daytime hours. Further, placement of riprap would occur for approximately 2 weeks of this timeframe, and would be located along the shoreline, that already experiences a higher ambient noise environment due to wave activity. In accordance with the County of Ventura Construction Noise Threshold criteria, the nearby residences are not considered noise-sensitive receptors for work performed during daytime hours, therefore a less than significant impact would result.

Although no mitigation is required, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities. Additionally,

MM REC-1 would include a Recreational Site Access and Traffic Management Plan that specifies limitations to trucking hours and idling times that would reduce the potential for noise impacts to the adjacent community.

Onshore Pipeline Connections

Cleaning, flushing and removal of pipelines, and filling the pipe casing with cement slurry would be conducted using heavy equipment and motor vehicles that would generate noise. The peak noise activity for this component is removal of pipeline segments, which would generate a noise level of 78.0 dBA Leq at the nearest residence (see Table 4.11-1).

Even though there would be an increase in anticipated noise for the duration of OPC decommissioning activities, work would be limited to daytime hours. In accordance with the County of Ventura Construction Noise Threshold criteria, the nearby residences are not considered noise-sensitive receptors, therefore a less than significant impact would result.

Although no mitigation is required, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities.

Onshore Facility

The options below include the installation of a physical barrier (sheet pile wall) between the Onshore Facility and the adjacent privately-owned Coast Ranch parcel. Installation of the steel sheet pile would be accomplished utilizing a vibratory hammer to drive (vibrate) the sheet piles down to the desired depth. This installation methodology is not anticipated to generate noise levels in exceedance of typical construction equipment, as the vibratory hammer does not actually "hammer" the sheet pile into place, but uses vibration for installation. It is important to note that this sheet pile wall would not be necessary if remediation activities at the Coast Ranch parcel were proposed to occur at the same time as the Project.

<u>Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation</u>

In-situ groundwater remediation activities and additional asphalt cap placement would be conducted over approximately 22 workdays (5 weeks) using heavy equipment and motor vehicles that would generate noise. The peak day noise activity for this option is construction of the asphalt cap at the southern-most soil contamination area, which would generate a noise level of 65.9 dBA Leq at Ventura County Fire Station 25 (see Table 4.11-1). This impact would be limited to about 5 days of heavy equipment activity associated with constructing the asphalt cap. Since Fire Station 25 is located approximately 300 feet from the U.S. Highway 101 centerline, it is anticipated that Project-related noise would not be detectable above background noise levels. A less than significant impact would result.

Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation

Excavation and removal of approximately 7,500 cubic yards of contaminated soil and replacement with imported clean soil would generate noise over approximately 45 workdays (9 weeks); however, the duration of peak noise levels would be approximately 30 workdays (6 weeks). The peak day noise activity for this option is soil excavation at the southern-most soil contamination area, which would generate a noise level of 66.3 dBA Leq at Ventura County Fire Station 25 (see Table 4.11-1). Noise levels would be lower during periods when excavation is conducted in areas further to the north. Since Fire Station 25 is located approximately 300 feet from the U.S. Highway 101 centerline, it is anticipated that Project-related noise would not be detectable above background noise levels. A less than significant impact would result.

Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation

Option 3 activities would be conducted over approximately 57 workdays (12 weeks). Similar to Option 2, the peak day noise activity for this option is soil excavation at the southern-most soil contamination area over a 30-day (6 week) work period. Therefore, this option would generate the same peak day noise levels of 66.3 dBA Leq at Ventura County Fire Station 25 (see Table 4.11-1). However, noise would be generated one day per week for approximately 6 years by a dozer used to till the land treatment area, but would not be perceptible at Fire Station 25 due to the high ambient noise levels associated with vehicle traffic on U.S. Highway 101 and the distance of the anticipated land treatment area near Los Sauces Creek from the Fire Station. A less than significant impact would result.

Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation

Soil mixing and in-situ bioremediation of approximately 7,500 cubic yards of contaminated soil would be conducted using heavy equipment and motor vehicles that would generate noise over approximately 55 workdays (11 weeks). The peak day noise activity for this option is in-situ soil mixing at the southern-most soil contamination area, which would generate a noise level of 66.1 dBA Leq at Ventura County Fire Station 25 (see Table 4.11-1) for approximately 30 workdays (6 weeks). Noise levels would be lower during periods when soil mixing is conducted in areas further to the north. Since Fire Station 25 is located approximately 300 feet from the U.S. Highway 101 centerline, it is anticipated that Project-related noise would not be detectable above background noise levels. A less than significant impact would result.

<u>Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation</u>

Option 5 activities would be conducted over approximately 25 workdays (5 weeks); however, similar to Option 2, the peak day noise activity for this option is soil excavation at the southern-most soil contamination area. This option would generate the same peak day noise levels of 66.3 dBA Leq at Ventura County Fire Station 25 (see Table 4.11-1). However, the duration of peak noise levels would be less since only localized excavation is proposed (17 workdays as compared to 30 days for Option 2). A less than significant impact would result.

Mitigation Measures

None required.

Although no mitigation measures are required, **MM REC-1** (Recreational Site Access and Traffic Management Plan) will include minimizing idling of trucks and construction-related equipment when located near residential structures to further reduce potential noise impacts.

Impact N-2: Vibration Impacts to Residents and Structures
Decommissioning activities would generate temporary vibration that may adversely affect adjacent residents and structures **(Less than Significant)**

Impact Discussion

The results of the vibration assessment using Caltrans Transportation and Construction Vibration Guidance Manual are provided in Table 4.11-2. Due to the temporary and intermittent nature of project-related vibration, and lack of any anticipated structural damage, vibration impacts are considered less than significant.

Table 4.11-2. Vibration Assessment Results

Project Site/ Peak Day Vibration Generating Task	Nearest Vibration Receptor	Vibration PPV at Receptor (inch/second)
Rincon Island		
Pavement and Soil Removal	Ocean Avenue residence (base of causeway)	0.15
SCC Parcel		
Options 1 through 3: Remove Coastal Hazards	Breakers Way residence	0.0012
Option 2: Placement of Cobble	Ocean Avenue residence (base of causeway)	0.0024
Option 3: Placement of Riprap	Ocean Avenue residence (base of causeway)	0.0007
Onshore Pipeline Connections		
Pipeline Removal	Residence at Ocean Avenue and Old Pacific Coast Highway intersection	0.0012
Onshore Facility		
Options 1 through 5: Sheet Pile Installation	County Fire Station 25	0.013
Options 4-5: Soil Compaction	County Fire Station 25	0.014

Rincon Island

Removal of surface structures, removal of the well bay concrete deck and pavement, removal of contaminated soil and backfill with clean soil would be conducted using heavy equipment and motor vehicles that would generate short-term vibration. Most vibration sources would be located about 3,000 feet from the nearest receptor. However, trucks would pass by residences on Ocean Avenue and were included in the vibration analysis. The peak day vibration level (PPV) associated with island decommissioning activities is estimated as 0.15 inch/second at the nearest receptor.

Loaded trucks transporting pavement and soil recovered from Rincon Island along Ocean Avenue and Old PCH would generate vibration that would be strongly perceptible by residents (PPV >0.1) but would not result in damage to older residential structures (PPV<0.3). Based on data provided in Table 2-3, an average of about 10 loaded trucks passing by would occur per day during Rincon Island decommissioning activities. Vibration from truck passbys exceeding 0.1 PPV would be limited to three residences along Ocean Avenue, and be limited to a few seconds approximately 10 times per day. Since vibration would be very infrequent, limited to daytime hours, and affect only a few residences, this impact would be less than significant.

Although no mitigation is required, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities.

Public Facilities Retention Option

Since the Operator's building would still be removed under this option and only water and septic piping and buried septic tank retained, heavy equipment and truck activity and associated vibration levels would be similar to the Rincon Island decommissioning activities. A less than significant impact would result.

SCC Parcel

Option 1: Native Revegetation and Access Improvements

Option 1 would be limited to revegetation, minor improvements (walkway, bench, signage, stairway), and removal of coastal hazards. The peak vibration activity for this option is removal of coastal hazards, which would generate a peak day vibration level (PPV) of 0.0012 inch/second at the nearest receptor (Table 4.11-2). Project-generated vibration would not be detectable at the nearest receptor (PPV<0.01). A less than significant impact would result.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

This option includes the same improvements listed under Option 1 as well as installation of a cobble back berm. The peak vibration activity for this option is placement of cobble, which would generate a peak day vibration level (PPV) of 0.0024 inch/second at the nearest receptor (Table 4.11-2). Project-generated vibration would not be detectable at the nearest receptor (PPV<0.01). A less than significant impact would result.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

This option includes the same improvements listed under Option 1 as well as installation of riprap along the parcel frontage. The peak vibration activity for this option is removal of the coastal hazards, which could generate a peak day vibration level (PPV) of 0.0012 inch/second at the nearest receptor. Placement of riprap would be conducted farther from receptors and result in lower vibration levels (Table 4.11-2). Project-generated vibration would not be detectable at the nearest receptor (PPV<0.01). A less than significant impact would result.

Onshore Pipeline Connections

Cleaning, flushing and removal of pipelines, and filling the pipe casing with cement slurry would be conducted using heavy equipment and motor vehicles that would generate vibration. The peak vibration activity for this component is pipeline removal, which would generate a peak day vibration level (PPV) of 0.0012 inch/second at the nearest receptor (Table 4.11-2). Project-generated vibration would not be detectable at the nearest receptor (PPV<0.01). A less than significant impact would result.

Onshore Facility

Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation

In-situ groundwater remediation activities would be conducted using heavy equipment and motor vehicles that would generate vibration. The peak day vibration for this option is installation of a sheet pile wall using a vibratory hammer, which would generate a peak day vibration level (PPV) of 0.013 inch/second at the nearest receptor (Table 4.11-2). Project-generated vibration would be barely detectable at the nearest receptor (PPV between 0.01 and 0.05). A less than significant impact would result.

Options 2 through 5

In addition to installation of the sheet pile wall, Options 2, 3, 4, and 5 include excavation of contaminated soil and other remediation work activities that would generate vibration. The peak day vibration for these options is compaction of backfilled soil using a vibratory compactor, which would generate a peak day vibration level (PPV) of 0.014 inch/second at the nearest receptor (Table 4.11-2). Project-generated vibration would be barely detectable at the nearest receptor (PPV between 0.01 and 0.05). A less than significant impact would result.

Mitigation Measures

None required.

4.11.5 Cumulative Impacts Analysis

Impact N-3: Cumulative Decommissioning Noise

The Project would incrementally contribute to cumulative decommissioning noise **(Less than Significant).**

Impact Discussion

Cumulative projects identified in Section 3.0 that could occur at the same time as the proposed Project and could generate a significant amount of noise that would affect sensitive receptors in the same area as the Project is limited to the Coast Ranch Parcel remediation activities. Although there is another small residential project planned within the Mussel Shoals community, it is anticipated that construction would be of a small scale and not cumulatively considerable with Project-related activities in the same area.

With respect to the Onshore Facility, there are no current proposals for work activities at the Coast Ranch Parcel. However, it is anticipated that due to constraints related to site access and materials staging, if remediation (primary noise source) were to occur at the same time at both the Onshore Facility and Coast Ranch, there would be no increase in the amount of equipment utilized onsite on any given day, only the amount of time required to achieve cleanup of both sites using the modeled equipment spread. Therefore, the Project contribution to increased noise levels at sensitive receptors would not be cumulatively considerable and would be less than significant.

Mitigation Measures

None required.

4.11.6 Summary of Impacts and Proposed Mitigation Measures

Table 4.11-3. Summary of Noise Impacts and Mitigation Measures

Impact	Mitigation Measures
Impact N-1: Noise Impacts to Sensitive Receptors	None Required
Impact N-2: Vibration Impacts to Residents and Structures	None Required
Impact N-3: Cumulative Decommissioning Noise	None Required

4.12 RECREATION

4.12.1 Environmental Setting

The Project sites are located in and along the coastline adjacent to the Pacific Ocean in northern unincorporated Ventura County. Specifically, the causeway and abutment are located adjacent to the residential community of Mussel Shoals and the beach areas (including the SCC Parcel) on both sides of Punta Gorda. The residential community of Mussel Shoals and the surrounding coastal area provide recreational uses including road-based activities such as biking, walking, and hiking, and water and beach-based activities including swimming, snorkeling, surfing, fishing, boating, jet-skiing, sunbathing, and other coastal beach-related activities.

Rincon Island

Rincon Island is not open to the public; therefore, there are no recreational opportunities on that Project site. However, ocean and beach-related recreational activities occur in the offshore area in proximity to Rincon Island and the causeway. Recreational uses in this area primarily include surfing and recreational fishing. Studies of the shoreline topography and surf break in and around the Project site are provided as Appendix G2 and Appendix H, respectively (Griggs 2022; Coastal Frontiers 2023). The public may also use the shoreline for swimming, and in the deeper water, jet skiing and boating.

<u>Surfing</u>

Punta Gorda is a major topographic point along the otherwise nearly linear Ventura County shoreline. Topographic features like Punta Gorda can create a high-quality surf break by bending the wave direction as the waves approach the shoreline. The surf break present in the area is created by the seaward protrusion of shoreline at Punta Gorda that exists in part because of the bedrock outcropping along the shoreline (Griggs 2022; Coastal Frontiers 2023). The bedrock outcropping has historically acted as a natural groin that retains sand on the updrift side corresponding to Mussel Shoals Beach, both before and after the abutment and causeway were built.

The primary surf break adjacent to the Project site is Little Rincon, a popular surf break on the east side of the causeway and rocky headlands. The shoreline in the vicinity of the Project sites is sheltered by Rincon Island and the California Channel Islands from the south and Point Conception from the north; therefore, the primary swell direction that influences the surf breaks is from the west. The surf break at Little Rincon is a one-sided point break that produces only right-handed breaks that break due to the change in direction of the shoreline (shore-normal direction changes abruptly from 270 to 232 degrees) (Coastal Frontiers 2023).

Better quality surfing conditions, specifically at Little Rincon, are likely to result from large, long-period swell approaching from the west-southwest, with “good” conditions occurring 16 percent of the time and “epic” conditions occurring 0.15 percent of the time, not accounting for local water level and wind conditions that can influence surf quality (Coastal Frontiers 2023).

Fishing

Recreational fishing occurs along the beach and in the nearshore area via kayak and motorboats, both private and chartered vessels; however, there is no public access allowed on the causeway, so there is no pier fishing. Common landings within 3 miles of the coast for recreational fishing in Ventura County include rockfish (*Sebastes* spp.), ocean whitefish (*Caulolatilus princeps*), market squid (*Doryteuthis opalescens*), kelp bass (*Paralabrax calthratus*), and Pacific mackerel (*Scomber japonicus*) (PSMFC 2023). Table 4.12-1 summarizes the total catch during 2021 through 2022 of the top three recreational fisheries present in Ventura County.

Table 4.12-1. 2021 to 2022 Recreational Fishing Summary

Species	Mode	Total Catch (Individual Fish)
Market squid	Private/Rental Boat	2,726
Ocean whitefish	Party/Charter Boat	9,188
Rock fish	Party/Charter Boat	10,919

Source: PSMFC 2023

Coastal Trail

Access to the Rincon Island causeway gate requires crossing the Coastal Trail, a segment of the County CAP’s North Coast Subarea Multi-Modal Route (Figure 4.12-1) which is located parallel to the freeway and north of the entrance to the Mussel Shoals community. The Coastal Trail is characterized by several different recreational activity modes and is approximately 12 miles long. This popular North Coast recreation area includes the Highway 101 bike path between Rincon Point and the Mobile Pier Road undercrossing, and beaches along Mussel Shoals, Faria, and Solimar. The Multi-Modal Route starts at Rincon Point (at the Santa Barbara County line) and extends south to Emma Wood State Beach (at the City of Ventura boundary). Half of this trail segment is a stand-alone bike path (existing Segments N1 and N3), and the remainder (proposed Segment N2) would be located within the public right-of-way for Old PCH when constructed. Currently, only multi-modal route segments N1 and N3 are complete Class 1 Pathways (public right-of-way horizontally separate from paved portion of the road). There are also single-mode routes for hikers and walkers along La Conchita Beach, Punta Gorda Beach, and the path on the riprap revetment at Seacliff Beach (a return to source-of-origin route). Segment N1 of the Coastal Trail segment, north of Rincon Island, is a recreational trail for walkers, hikers, and bicyclists.

SCC Parcel

The recreational beach area at Mussel Shoals is accessible from private residences, as well as public access points at the end of Ocean Avenue and across the SCC Parcel. Parking within the Mussel Shoals community consists of a linear area along the north of the community with approximately 25 spots for parking (Figure 4.12-1). Beach access is from Ocean Avenue to the SCC Parcel (Figure 4.12-2) or from public and private stairways along Mussel Shoals Beach to the east and west of the SCC Parcel. Additionally, pedestrian under-crossings for U.S. Highway 101 are located at La Conchita and at Punta Gorda (Ventura County 2020). At the far eastern portion of the Mussel Shoals community is a commercial area including the Cliff House Inn and Shoals Restaurant, approximately 400 feet from the eastern edge of the SCC Parcel. Accessibility to and along the coastline is required by the CCA.

Figure 4.12-1. Mussel Shoals Parking Area and Public Restrooms

Figure 4.12-2. Beach Access from Ocean Avenue Heading South

The SCC Parcel is also located close to Segment N1 of the Coastal Trail (Figure 4.12-3), a segment of the County CAP's North Coast Subarea Multi-Modal Route (see description above) that runs along the north side of Mussel Shoals and crosses traffic for approximately 135 feet at the crosswalk on the south side of the Highway 101 on-ramp and off-ramp that provide access to and from the SCC Parcel.

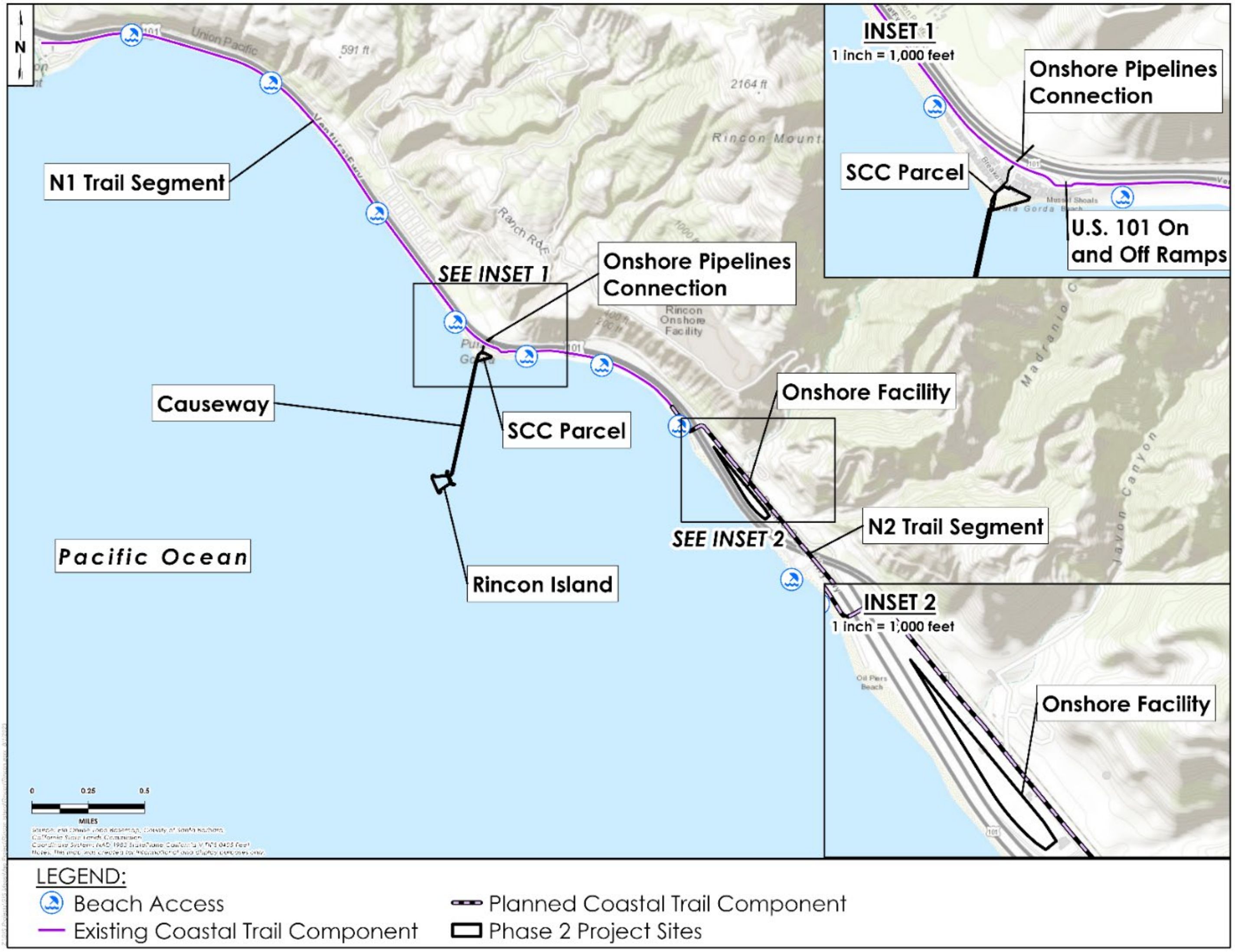
Onshore Pipeline Connections

The OPC are located mainly underground and terminate within a vault box located on the northeast side of the railroad right-of-way and U.S. Highway 101 (Figure 4.1-1, Photo H). There are no existing recreational access areas or activities that occur within the OPC vault area; however, pipeline flushing activities would require access for approximately 10 workdays within the Mussel Shoals community at Ocean Avenue.

Onshore Facility

The Onshore Facility is located along the Coastal Trail within the County CAP's North Coast Subarea, which contains an upland segment of the Multi-Modal Route (Figure 4.12-3). The proposed additional section of the Segment N2 would be located parallel to the parcel north of the Onshore Facility, along Old PCH for approximately 0.4 mile, where it would intersect with the vehicle entrance and exit points at the Onshore Facility (Ventura County 2020). If constructed prior to decommissioning, trucks entering and leaving the Onshore Facility would need to cross the proposed N2 segment of the Coastal Trail.

Figure 4.12-3. Coastal Access and Trails in the Vicinity of the Project Sites



4.12.2 Regulatory Setting

There are no federal regulations, authorities, or administering agencies that regulate recreational resources that are specifically applicable to the Project. State laws, regulations, and policies regarding recreation including CCA Chapter 3, Sections 30210, 30220, 30221, and 30222.5, are discussed in Appendix B. Local laws, regulations, and policies are discussed below.

4.12.2.1 Local

Ventura County 2040 General Plan (2020)

Land Use and Community Character Element

Policies included within the Ventura County 2040 General Plan Land Use and Community Character Element (Ventura County 2020) include the following related to protection of recreational opportunities:

- **Policy LU-20.1: Recreational Access and Uses**. The County shall encourage federal, state, and local agencies currently providing recreation facilities to maintain, at a minimum, and improve, if possible, their current levels of service.
- **Policy LU-20.2: Coastal Access from Federal and State Lands**. The County shall encourage federal and state agencies to consider existing uses in the area (residential, visitor-serving, and public) at beach and coastal sites so that access is optimized, potential conflicts are minimized, and existing qualities maintained.
- **Policy LU-20.3: Day-Use Opportunities**. The County shall encourage federal and state agencies to provide improved day-use recreational facilities in the county.

Public Facilities, Services, and Infrastructure Element

Policies included within the Ventura County 2040 General Plan Public Facilities, Services, and Infrastructure Element (Ventura County 2020) include the following related to protection of recreational opportunities:

- **Policy PFS-2.2: Sustainable Community Facility Design.** The County shall encourage the incorporation of sustainable design features in community facilities to reduce energy demand and environmental impacts, such as solar reflective roofing, permeable pavement, and incorporation of shade trees.

- **Policy PFS-8.3: Community Facility Design to Promote Health.** The County shall encourage the integration of design features in community facilities that promote healthy activities, such as designing staircases to be visually prominent and attractive, providing secure bicycle parking, and providing connections to trails and outdoor activities.
- **Policy PFS-10.8: Discretionary Development near Trails.** The County shall require discretionary development near existing trails to mitigate or avoid adverse impacts to the existing trail system. Where appropriate, a condition of approval or other means of permanent dedicated trail access shall be provided.

Conservation and Open Space Element

Policies included within the Ventura County 2040 General Plan Conservation and Open Space Element (Ventura County 2020) include the following related to protection of recreational opportunities:

- **Policy COS-2.6: Public Access**. The County shall continue to plan for the preservation, conservation, efficient use of, enjoyment of, and access to resources, as appropriate, within Ventura County for present and future generations.
- **Policy COS-2.7: Preserve Public Access**. The County shall work with federal, state, and local jurisdictions, agencies, and organizations to assess the vulnerability of public coastal access points and prioritize protection for those that provide the greatest benefits to residents and visitors.

Ventura County Coastal Area Plan

- **Beach Erosion: Policy 7.** Permitted shoreline structures will not interfere with public rights of access to the shoreline.

4.12.3 Significance Criteria

According to the Ventura County Initial Study Assessment Guidelines (2011), potential impacts to recreation could result if:

- A project would cause an increase in the demand for recreation, parks, or trails and corridors or would cause a decrease in recreation, parks, or trails or corridors

- A project will also have a significant impact on recreation if it would permanently impede access to Recreation Parks/Facilities and/or Regional Trails/Corridors

4.12.4 Impact Analysis and Mitigation

Impact REC-1: Temporary Loss of Recreational Access to Beach and Ocean Areas Due to Onsite Project Activities

The Project would temporarily reduce recreational access to Mussel Shoals Beach and offshore ocean recreational areas during decommissioning activities **(Less than Significant).**

Impact Discussion

Rincon Island

Project activities on Rincon Island would be confined to the interior of the island and would not change access to the surrounding ocean areas utilized by surfers, boaters, or the recreational fishing community since Project decommissioning would be accomplished utilizing the causeway for access to or from the Island; therefore, there would be no impact to ocean or beach-related recreational access.

Public Facilities Retention Option

The public facilities retention option is also confined to the interior of the island and would have no impact on existing access to ocean or beach-related recreational activities during construction. No impact would result.

SCC Parcel

Option 1: Native Revegetation and Access Improvements

Option 1 at the SCC Parcel would temporarily affect recreational use of a portion of the Mussel Shoals beach for approximately 10 workdays (2 weeks) during proposed improvement activities. The beach and shoreline area would remain open for recreational uses including surfing, fishing, and swimming. Recreational access to the beach would remain open to the east and west of the Project work area during most of the work period; however, public access may be temporarily precluded from the immediate work area and the unofficial access paths through the parcel for safety purposes. The existing walking/access paths would be improved with crushed rock or other appropriate surface to allow for percolation and drainage. A stairway would be installed near the eastern perimeter of the parcel to provide safer access to the beach from the bluff drop-off area, and the existing coastal hazards would be demolished along the shoreline. During these activities, the public may be excluded from portions of the beach for safety purposes; however, beaches north and south of the SCC Parcel would remain open and unobstructed. Impacts to beach and offshore recreation during Option 1 would be less than significant.

Although mitigation is not required, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) and posted onsite prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities.

<u>Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm</u>

Option 2 would include all of the tasks and associated construction and maintenance equipment described above in Option 1 but would also require an additional 10 workdays (20 workdays total, or 4 weeks) to complete all improvement tasks. The installation of the cobble back berm would temporarily close public access to the Mussel Shoals beach area due to equipment access on the beach; however, beaches north and south of the SCC Parcel would remain open and unobstructed; therefore, impacts from Option 2 to beach and offshore recreation would be less than significant.

Although mitigation is not required, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) and posted onsite prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities.

<u>Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage</u>

Option 3 would include all of the tasks and associated construction and maintenance equipment described above in Option 1 but would also require an additional 15 workdays (25 workdays total, or 5 weeks) to complete all improvement tasks. The installation of the riprap along the parcel frontage would temporarily close public access to the Mussel Shoals beach area due to equipment access on the beach; however, beaches north and south of the SCC Parcel would remain open and unobstructed; therefore, impacts from Option 2 to beach and offshore recreation would be less than significant.

Although mitigation is not required, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) and posted onsite prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities.

Onshore Pipeline Connections

The OPC vault is located northeast of Highway 101, is mainly underground, and is not in proximity to any existing recreational access areas or activities. However, for approximately 10 workdays, pipeline flushing activities will require a small crew and limited equipment to access the pipelines at the southwest end of the casing from Ocean Avenue. During this time, a portion of the roadway from Ocean Avenue may be temporarily precluded; however, the beach on the SCC Parcel would remain open and unobstructed; therefore, impacts to beach and offshore recreation would be less than significant.

Although mitigation is not required, notices would be mailed to local residents (in accordance with all noticing that has occurred by CSLC on behalf of the Project) and posted onsite prior to construction regarding Project activities that would inform the public of the construction schedule and proposed work activities.

Onshore Facility

<u>Options 1 through 5</u>

The Onshore Facility is located on the north side of Highway 101 and does not contain any public access for beach or ocean related recreational activities; therefore, there would be no impact.

Impact REC-2: Temporary Interference with Recreational Traffic on Ventura Coastal Trail

The Project would temporarily interfere with recreational bicycle and pedestrian traffic on the Ventura Coastal Trail during Rincon Island decommissioning activities and SCC Parcel improvements. Recreational use of PCH may be temporarily affected during remediation activities at the Onshore Facility **(Less than Significant with Mitigation).**

Impact Discussion

Due to the narrow nature of the coastline, highway, and road corridors within the vicinity of the Project sites as well as the small number of roads large enough to support trucking, the Project sites have limited potential access routes. As such, during decommissioning activities, access to the Project sites would generate traffic and hauling activities that would create a temporary disturbance to recreational bicycle and pedestrian traffic on the Ventura North Coast Coastal Trail, as further discussed under each Project site below.

Although unlikely to occur, there is the potential for simultaneous activities at the Rincon Island, SCC Parcel, and OPC pipeline flushing Project areas which would all impact the same portion of the Ventura North Coast Coastal Trail adjacent to Mussel Shoals due to crossing of trucks coming in or leaving the Project sites. If activities at Rincon Island, the SCC Parcel, and OPC pipeline flushing were to occur simultaneously, total trucks trips would average up to 61 one-way trips per day during the 2 to 5-week timeframe that activities would overlap. A detailed description of the trucking requirements for all Project areas is provided in Table 2-3, Truckload Estimate – Material Transport. A summary of estimated one-way truck trips per day for construction (Table 4.13-2) as well as passenger vehicles (Table 4.13-1) is also included in Section 4.13.4.

Project trucks and vehicles would utilize the U.S. Highway 101 on and off ramps at their intersection along Old PCH to travel to and from the Rincon Island and SCC Parcel Project sites, as well as during pipeline flushing for the OPC. During this time, Coastal Trail users would potentially have a greater likelihood of encountering truck traffic at the intersection, but recreational access would not be precluded. Coastal Trail users would still have access to the trail's right-of-way and cross walk.

Additionally, implementation of **MM REC-1** would require the preparation of a Recreational Site Access and Traffic Management Plan that would detail procedures to ensure the safe passage of public pedestrians, bicyclists, and motorists along the Coastal Trail routes. With implementation of **MM REC-1**, the impact would be less than significant.

Rincon Island

The Project would temporarily increase vehicle traffic across the existing Coastal Trail located along the southern shoulder of the freeway adjacent to the Mussel Shoals community. Specifically, decommissioning at Rincon Island would require the mobilization of heavy equipment, transportation of construction materials, and trucking of remediated soils across Segment N1 of the Ventura North Coast Coastal Trail. Project decommissioning activities at Rincon Island would generate a total of 1,992 truck trips (1,032 trips associated with export of scrap materials from structure and pavement demolition and removal of contaminated soil and interstitial water and 960 trips required for import of clean soil for backfill of the excavation) over an approximately 15-month work period. Assuming trucking occurs during a standard 5-day work week and the same amounts of material are transported each day, that would equal an average of five truck trips per day.

Project trucks and vehicles would utilize the U.S. Highway 101 on and off ramps at their intersection along Old PCH to travel to and from the Rincon Island Project area. During this time, Coastal Trail users would potentially have a greater likelihood of encountering truck traffic at the intersection, but recreational access would not be precluded. Coastal Trail users would still have access to the trail's right-of-way and cross walk. Additionally, implementation of **MM REC-1** would require the preparation of a Recreational Site Access and Traffic Management Plan that would detail procedures to ensure the safe passage of public pedestrians, bicyclists, and motorists along the Coastal Trail routes. With implementation of **MM REC-1**, the impact would be less than significant.

Mitigation Measure

MM REC-1: Recreational Site Access and Traffic Management Plan. A Recreational Site Access and Traffic Management Plan shall be prepared prior to commencement of Project activities. The Recreational Site Access and Traffic Management Plan shall specify that carpooling will be encouraged to limit the volume of traffic to the extent feasible. It shall include measures such as appropriate signage, flagging personnel, detour routes, and lane closure to reduce potential hazards to public trail users, motorists, and workers during the Project. In addition, the Recreational Site Access and Traffic Management Plan shall include measures to allow emergency vehicle access, reduce impacts to circulation, and address potential hazards to motorists, bicyclists, pedestrians, and workers during the Project. Measures intended to reduce unnecessary idling time and queueing of transport vehicles shall also be included.

Public Facilities Retention Option

The public facilities retention option includes a slight reduction in demolition in order to preserve the existing subsurface infrastructure necessary to support public restroom facilities. This reduction in demolition is negligible compared to the amount of demolition required to accomplish the other Rincon Island decommissioning tasks; therefore, it is not expected to result in a significant change to the number of truck trips or potential impacts to recreational resources. With implementation of **MM REC-1**, the impact would be less than significant.

SCC Parcel

Option 1: Native Revegetation and Access Improvements

SCC Parcel Option 1 improvement activities would require the mobilization of heavy equipment as well as transportation of construction materials across Segment N1 of the Ventura North Coast Coastal Trail. A total of 17 truck trips would be required to complete revegetation and access improvements at the SCC Parcel (10 trips for non-native vegetation removal and native plant restoration and seven trips associated with import of materials for other proposed site improvements). An average of approximately three one-way truck trips per day are estimated to occur over the 10-day work period. However, implementation of **MM REC-1** would reduce impacts to less than significant by requiring the preparation of a Recreational Site Access and Traffic Management Plan that would detail procedures to ensure the safe passage of public pedestrians, bicyclists, and motorists along the Coastal Trail route. With implementation of **MM REC-1**, the impact would be less than significant.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

SCC Parcel Option 2 improvement activities would require the mobilization of heavy equipment as well as transportation of construction materials including truck trips across Segment N1 of the Coastal Trail. A total of 507 truck trips would be required for Option 2 (approximately 250 trips associated with non-native vegetation removal and excess soil removal, 250 truck trips required for the import of the cobble back berm materials before the native soil is replaced, and 7 trips for import of materials for other site improvements). An average of 51 one-way truck trips per day are estimated to occur over the 20-day work period. However, implementation of **MM REC-1** would reduce impacts to less than significant as described in Option 1. With implementation of **MM REC-1**, the impact would be less than significant.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

SCC Parcel Option 3 improvement activities would require the mobilization of heavy equipment as well as transportation of construction materials across Segment N1 of the Coastal Trail. A total of 53 truck trips would be required for Option 3 (36 trips for import of riprap materials, 10 trips for non-native vegetation removal, and seven trips for other site improvements). An average of approximately two truck trips per day are estimated to occur over the 25-day work period. However, implementation of **MM REC-1** would reduce impacts to less than significant as described in Option 1. With implementation of **MM REC-1**, the impact would be less than significant.

Onshore Pipeline Connections

The OPC vault is located mainly underground and does not contain any existing recreational access to the Coastal Trail or other recreational activity areas. However, for approximately 10 workdays, pipeline flushing activities will require a small crew (approximately 2 trucks) and limited equipment (pig launcher pipe fittings and foam pigs) to access the pipelines at the southwest end of the casing from Ocean Avenue. During this time, access to a portion of the roadway leading to the Coastal Access Trail may be temporarily precluded. However, **MM REC-1** would be implemented to safely redirect pedestrian and vehicle access through this area. With implementation of **MM REC-1**, the impact would be less than significant.

Onshore Facility

Remediation of contaminated soils at the Onshore Facility would result in the potential for temporary recreational impacts from Project traffic and transport trucks intersecting with recreational trail routes adjacent to the Onshore Facility entrance along Old PCH.

Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation

The only truck trips required in support of Option 1 are for equipment needed in support of steel sheet pile wall installation, placement of the additional surface cap material, as well as site access to facilitate monitoring during groundwater bioremediation activities (Table 2-3). An average of 44 one-way truck trips and 10 one-way passenger trips would be required during the approximately 4-week construction period. No hauling of materials to an offsite disposal facility would be necessary. Groundwater monitoring would require minimal periodic vehicle access to the Project site. Trucks and equipment entering and leaving the Onshore Facility would have the potential to temporarily interrupt existing pedestrian or bicycle traffic flow along the shoulder of Old PCH, which is a significant impact. However, **MM REC-1** would be implemented to safely redirect pedestrian and vehicle access through this area. With implementation of **MM REC-1**, the impact would be less than significant.

Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation

Option 2 remediation activities would also have the potential to temporarily impact bicycle and pedestrian traffic along the shoulder of Old PCH. Option 2 includes the remediation of contaminated soils to 10 feet bgs that would require an average of approximately 82 haul truck trips per day over a 45 workday (6 week) period. Passenger trips would add another eight one-way trips per day. Trucks and equipment entering and leaving the Onshore Facility would have the potential to encounter recreational trail users along the shoulder of Old PCH, which is a significant impact. However, implementation of **MM REC-1** would avoid impacts to recreation by requiring the preparation of a Recreational Site Access and Traffic Management Plan that would detail procedures to ensure the safe passage of public pedestrians, bicyclists, and motorists along the trail routes adjacent to the Onshore Facility trucking routes. With implementation of **MM REC-1**, the impact would be less than significant.

Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation

Option 3 includes the remediation of contaminated soils to 10 feet bgs that would require an average of approximately 17 haul truck trips per day over a 57 workday (12 week) period. Passenger trips would add another six one-way trips per day. Although Option 3 includes plans to treat contaminated soil onsite, trucks and equipment would still need to cross existing pedestrian and bicycle traffic along the shoulder of Old PCH for access to the site, which is a potentially significant impact. Implementation of **MM REC-1** would reduce impacts to recreation by requiring a Recreational Site Access and Traffic Management Plan that would include procedures for reducing hazards to trail users. With implementation of **MM REC-1**, the impact would be less than significant.

<u>Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation</u>

Option 4 would mix contaminated soils with cement and soils would remain in place on the Project site. Option 4 requires a total of 498 truck trips (468 trips for import of recycled asphalt base 20 trips for sheet piles and 10 cement truck trips). There would be an average of 18 trips per day over 55 workdays (11-weeks). Cement truck trips may be phased throughout the Project activities as well as equipment mobilization and demobilization. Passenger trips would add another six one-way trips per day. During this time, trucks or equipment entering and leaving the Onshore Facility would have the potential to temporarily interrupt existing pedestrian or bicycle traffic flow along the shoulder of Old PCH, which is a significant impact. However, implementation of **MM REC-1** would reduce impacts to recreation by requiring a Recreational Site Access and Traffic Management Plan that would include procedures for reducing hazards to trail users. With implementation of **MM REC-1**, the impact would be less than significant.

<u>Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation</u>

Option 5 would remove contaminated soil down to approximately 3 feet and cap the areas containing petroleum hydrocarbon-containing soil at depths greater than approximately 3 feet. Option 5 requires a total of 164 trips (approximately 72 truck trips for removal of hydrocarbon contaminated soil and another 72 truck trips for clean soil backfill). There would be an average of 713 one-way trips per day over a 25 workday (5 week) period as well as equipment mobilization and demobilization. Passenger trips would add another 17 one-way trips per day. During this time, trucks and equipment entering and leaving the Onshore Facility would have the potential to temporarily interrupt existing pedestrian or bicycle traffic flow along the shoulder of Old PCH, which is a significant impact. However, implementation of **MM REC-1** would reduce impacts to recreation by requiring a Recreational Site Access and Traffic Management Plan that would include procedures for reducing hazards to trail users. With implementation of **MM REC-1**, the impact would be less than significant.

Mitigation Measure

MM REC-1: Recreational Site Access and Traffic Management Plan

Impact REC-3: Permanent Changes to Recreational Access to Mussel Shoals Beach Area

The Project would permanently alter the access paths and Mussel Shoals Beach area during and after SCC Parcel improvements. Retention of public facilities would ensure that basic infrastructure to support public facilities reuse of Rincon Island could potentially benefit future recreational uses of Rincon Island **(Less than Significant/Beneficial).**

Rincon Island

Rincon Island is not currently accessible to the public, and the proposed Project would not impact ocean-related recreation adjacent to the Project area; therefore, there would be no permanent impacts to recreational access due to Project activities on Rincon Island.

Public Facilities Retention Option

Retention of the existing public facilities infrastructure onsite would have a beneficial effect for potential future recreational access or uses of Rincon Island (although no specific future use is included as part of the Project). Retention of the existing public facilities has the potential to support public recreational activities if public access is allowed in the future.

SCC Parcel

Option 1 and Option 2

Completion of the SCC Parcel Option 1 or Option 2 improvement activities would result in beneficial impacts to recreational access in this area through the creation of safer access within the existing trails, an improved public seating area, the addition of stairs to the beach, and the installation of educational signage at the lookout point. Removal of the existing coastal hazards would improve aesthetics and create a safer beach area for public use. A long-term beneficial impact would result.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

Riprap was installed prior to 1971 along the entire SCC Parcel shoreline following installation of the causeway in 1959, however; a segment of that riprap has been lost or moved further offshore over time. SCC Parcel Option 3 would include replacement of that missing segment of riprap along the shoreline. Placement of riprap would result in the permanent loss of a small portion of the sandy beach area (an area approximately 115 feet [35 meters] in length and approximately 0.04 acres) that could be used by the public; however, the loss of beach would be considered less than significant.

Additionally, as noted in the Griggs report (2022), armoring an eroding shoreline would eliminate a small portion of that source of eroding sand to the littoral drift system. However, as discussed in Section 4.6 (Geology and Coastal Processes), based on long-term downcoast dredging volumes, the average annual littoral drift volume along the Rincon coast has been measured at approximately 300,000 yds^3. This volume of sand hasn't changed significantly based on placement of rock or other armaments in this area that has occurred periodically over the years. As such, it can be concluded that this armoring did not result in significant changes to the volume of sand available for littoral transport to beaches downcoast (Griggs 2022). As such, placement of riprap for Option 3 is not anticipated to significantly change the volume of sand available for recreational purposes.

Further, the riprap would reduce future erosion of the SCC Parcel, thereby reducing the risk of future loss of existing adjacent access roads to Rincon Island and of public access points on the SCC Parcel. In addition, other activities included in Option 3 would result in the creation of safer access within the existing trails and visitor amenities, including an improved public seating area, the addition of stairs to the beach, and the installation of educational signage at the lookout point.

Onshore Pipeline Connections

The OPC vault area is located mainly underground in an area that does not contain any existing recreational access areas or activities. Following completion of OPC decommissioning activities, there would be no above-ground components that would have a potential to affect recreational access or opportunities. Therefore, there would be no impact.

Onshore Facility

Options 1 through 5

The Onshore Facility is located on the north side of Highway 101 and does not contain any public access for beach-related activities; therefore, there would be no impact.

4.12.5 Cumulative Impacts Analysis

Impact REC-4: Cumulative Recreational Impacts

The Project would incrementally contribute to cumulative recreational impacts **(Less than Significant with Mitigation).**

Impact Discussion

Cumulative projects identified in Section 3.0 that could occur at the same time as the proposed Project and could affect recreational opportunities are limited to the Caltrans – VEN-1 Cold Plan and Overlay AC Pavement project in Ventura County outside of the Project area. As the project areas do not overlap, implementation of the proposed Project would only contribute to short-term impacts to recreational use. These impacts would be mitigated through implementation of **MM REC-1.** In addition, the Caltrans project would implement the standard State requirements for informing and protecting the public. With implementation of **MM REC-1**, the cumulative impact would be less than significant.

Mitigation Measures

MM REC-1: Recreational Site Access and Traffic Management Plan

4.12.6 Summary of Impacts and Proposed Mitigation Measures

Table 4.12-2. Summary of Recreation Impacts and Mitigation Measures

Impact	Mitigation Measures
Impact REC-1: Temporary Loss of Recreational Access to Beach and Ocean Areas Due to Onsite Project Activities	None Required
Impact REC-2: Temporary Interference with Recreational Traffic on Ventura Coastal Trail	**MM REC-1:** Recreational Site Access and Traffic Management Plan

Impact	Mitigation Measures
Impact REC-3: Permanent Changes to Recreational Access to Mussel Shoals Beach Area	None Required
Impact REC-4: Cumulative Recreational Impacts	**MM REC-1:** Recreational Site Access and Traffic Management Plan

4.13 TRANSPORTATION AND TRAFFIC

4.13.1 Environmental Setting

4.13.1.1 Regional Setting

According to the Ventura County 2040 General Plan, Circulation Element (Ventura County 2020), the majority of traffic, in terms of volumes and miles traveled within unincorporated Ventura County, takes place on State highways. Roadways in the Project area primarily include U.S. Highway 101 and the Pacific Coast Highway (PCH). As shown in Figures 2-27 through 2-30, U.S. Highway 101 bisects the Project sites, and PCH (a part of State Route [SR]1) is located to the north of the Onshore Facility. Additionally, in the Mussel Shoals community, a beach frontage roadway (known as Old Pacific Coast Highway [Old PCH]) provides access to Ocean Avenue and private roadways within the community.

As previously discussed within Section 4.1 (Aesthetics), U.S. Highway 101 is an eligible State scenic highway but is not currently designated. At postmile 27.67 (Seacliff Colony, approximately 13 miles south of the Project site), U.S. Highway 101 was noted as having 4,500 average annual daily trips (AADT) and a Level of Service (LOS) measured at A (best)[14]; and U.S. Highway 101 was noted at 61,000 AADT/LOS B at Seacliff (postmile 38.976) and 65,000/LOS B at the Ventura/Santa Barbara County Line (postmile 43.622) (Ventura County: Table 6-12; 2020).

4.13.1.2 Rincon Island, the Causeway, and the SCC Parcel

Rincon Island, the causeway entrance, and the SCC Parcel are accessible along the southbound lanes of U.S. Highway 101 or from U.S. Highway 101 northbound to SR 1 (State Beaches exit). Only three roads are located within the Mussel Shoals community: Old PCH, Ocean Avenue, and a private roadway, Breakers Way (Figure 2-25). Access to the site occurs via Old PCH south to Ocean Avenue. Old PCH is a single paved traffic lane that runs parallel to U.S. Highway 101 for approximately 600 feet until its terminus near its intersection with Ocean Avenue. Ocean Avenue also provides a single-paved lane for approximately 200 feet until its terminus at the private entryway for the Rincon

14 LOS A: represents free-flow travel with an excellent level of comfort and convenience and the freedom to maneuver. LOS B: has stable operating conditions, but the presence of other road users causes a noticeable, though slight, reduction in comfort, convenience, and maneuvering freedom.

Island Causeway. Breakers Way is a private roadway providing access to beach residences in the Mussel Shoals community and runs perpendicular to the entryway of the causeway at the terminus of Ocean Avenue.

Bicycle and Pedestrian Access

The La Conchita Bike Path (also identified within the Ventura County CAP (Last Amended 2021) as Segment N1 of the multi-modal route in the North Coast subarea) is a 4-mile path that is located parallel to southbound U.S. Highway 101 along the coast and extends from Rincon Point southbound to Mobil Pier Road in Ventura County. The bike path is partially located along the northern boundary of the Mussel Shoals community and provides connecting access to the area for bikers and pedestrians from Old PCH.

Train Transport

Passenger and freight train transportation occurs north of and adjacent to PCH/ SR 1 (Figure 2-30); however, no stations or stops occur between the City of Carpinteria (north of the existing facilities) and the City of Ventura (south of the existing facilities).

Pedestrian Traffic and Parking

The beach areas located adjacent to the causeway landing and the SCC Parcel provide recreational opportunities for swimming, surfing, fishing, boating, jet skiing, sunbathing, and other beach-related activities. As such, visitors often park along the northern portion of Old PCH and walk along Ocean Avenue to the coastal access points adjacent to the causeway landing and at the SCC Parcel.

4.13.1.3 Onshore Facility

Access to the Onshore Facility is from U.S. Highway 101 northbound or southbound to exit 78 (State Beaches), to PCH/SR 1, then through the private Coast Ranch parcel to the Onshore Facility (Figure 2-30). The Onshore Facility is primarily unpaved, with internal unpaved access roads. A bike lane is present along both sides of PCH/SR 1 that is directly adjacent to the Onshore Facility.

4.13.2 Regulatory Setting

Traffic operations and transportation planning are regulated by a variety of federal, state, and local laws and regulations including CCA Chapter 3, Section

30254 as discussed in Appendix B. Local laws, regulations, and policies are included below.

4.13.2.1 Local

<u>Ventura County 2040 General Plan (2020)</u>

<u>Circulation Element</u>

Policies included within the Ventura County 2040 General Plan Circulation Element (Ventura County 2020) include the following related to transportation and traffic:

- **Policy CTM-1.1: Vehicle Miles Traveled (VMT) Standards and CEQA Evaluation**: The County shall require evaluation of County General Plan land use designation changes, zone changes, and discretionary development for their individual (i.e., project-specific) and cumulative transportation impacts based on VMT under CEQA pursuant to the methodology and thresholds of significance criteria set forth in the County Initial Study Assessment Guidelines.
- **Policy CTM-2.28: Emergency Access**: The County shall ensure that all new discretionary projects are fully evaluated for potential impacts to emergency access. Mitigation of these impacts shall be handled on a project-by-project basis to guarantee continued emergency service operations and service levels.

4.13.3 Significance Criteria

Based on the Initial Study checklist provided in the State CEQA Guidelines, transportation impacts may be significant if Project activities:

- Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities
- Conflict with or are inconsistent with CEQA Guidelines Section 15064.3, subdivision(b)
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access

4.13.4 Impact Analysis and Mitigation

Impact T-1: Decommissioning Vehicle Trip Generation and VMT

Proposed decommissioning activities would generate vehicle trips and VMT during short-term decommissioning activities **(Less than Significant).**

Impact Discussion

CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks) not heavy-duty trucks (Governor's Office of Planning and Research 2018b).

Projects that generate or attract fewer than 110 passenger vehicle trips per day generally may be assumed to cause a less than significant transportation impact (Governor's Office of Planning and Research 2018b). Using a worst-case scenario where the decommissioning at all four Project sites is being conducted at the same time, the total number of passenger vehicle trips per day would equal 64 one-way trips total (Table 4.13-1). Since the proposed activities would not generate more than 110 passenger vehicle trips per day the Project is consistent with Section 15064.3 of the State CEQA Guidelines.

Table 4.13-1. Summary of Estimated Passenger Vehicle Trips Per Day

Project Site/Option	Total Passenger Round Trips[1]	Approximate Duration of Work[2]	Average Number of One-Way Trips per Day (Round Trips*2/Duration of Work)
Rincon Island	2,732	437	**13**
SCC Parcel, Option 1	101	10	**20**
SCC Parcel, Option 2	151	20	15
SCC Parcel, Option 3	171	25	14
OPC	200	29	**14**
Onshore Facility, Option 1	112	22	10
Onshore Facility, Option 2	180	45	8
Onshore Facility, Option 3	160	57	6

Project Site/Option	Total Passenger Round Trips[1]	Approximate Duration of Work[2]	Average Number of One-Way Trips per Day (Round Trips*2/Duration of Work)
Onshore Facility, Option 4	164	55	6
Onshore Facility, Option 5	216	25	**<u>17</u>**
		Total[3]	**64**

[1]Summarized from Table 2-8 in Section 2.7.2 (Personnel Requirements).
[2]Taken from Table 2-9 in Section 2.8 (Schedule).
[3]Bold and underlined text includes highest number of potential trips per Project site area. Total includes the sum of the 4 Project sites, including the SCC Parcel and Onshore Facility Option with the greatest number of trips.

VMT generated by Project-related heavy-duty truck trips are not required to be included within the analysis compared to the threshold noted above and so are excluded from the impact analysis; however, truck trips are disclosed within Table 4.13-2 for background information. A detailed description of the heavy-duty trucking requirements for all Project sites and Project options is also provided in Table 2-3, Truckload Estimate – Material Transport. As summarized in Table 4.13-2, the total number of heavy-duty truck trips associated with conducting decommissioning at all four Project sites at the same time on a worst-case day would equal 143 one-way trips total.

Table 4.13-2. Summary of Estimated Truck Trips Per Day (Hauling)*

Project Site/Option	Total Truck Round Trips[1]	Approximate Duration of Work[2]	Average Number of One-Way Trips per Day (Round Trips*2/Duration of Work)
Rincon Island	1,992	437	**<u>9</u>**
SCC Parcel, Option 1	17	10	3
SCC Parcel, Option 2	507	20	**<u>51</u>**
SCC Parcel, Option 3	53	25	4

Project Site/Option	Total Truck Round Trips[1]	Approximate Duration of Work[2]	Average Number of One-Way Trips per Day (Round Trips*2/Duration of Work)
OPC	8	29	**<u>1</u>**
Onshore Facility, Option 1	488	22	44
Onshore Facility, Option 2	1,838	45	**<u>82</u>**
Onshore Facility, Option 3	488	57	17
Onshore Facility, Option 4	498	55	18
Onshore Facility, Option 5	164	25	13
		Total[3]	**143**

*Excluded from analysis based on VMT CEQA Guidelines Section 15064.3, subdivision(b). Information provided for discussion purposes only.
[1]Summarized from Table 2-3 in Section 2.5.2 (Anticipated Truckloads) above.
[2]Taken from Table 2-9 in Section 2.8 (Schedule) above.
[3]Bold and underlined text includes highest number of potential trips per Project site area. Total includes the sum of the 4 Project sites, including the SCC Parcel and Onshore Facility Option with the greatest number of trips.

Although the Project would not result in significant impacts to Traffic and Transportation based on an estimate of passenger vehicle trips per day, a Recreational Site Access and Traffic Management Plan (**MM REC-1**) would be implemented to coordinate Project traffic, including both construction trucking and passenger vehicle trips. Additionally, CSLC would provide notices to local residents prior to Project implementation regarding Project timing and hours. Short-term impacts from the generation of trips during Project implementation would be less than significant.

A discussion of potential trips at each Project site individually is included below.

Rincon Island

With respect to passenger vehicle VMT, based on Table 2-8, decommissioning activities are anticipated to generate approximately 2,732 passenger vehicle round trips by workers (assuming no carpooling as a worst-case scenario), including 300 trips for removal of surface structures, 200 trips for removal of the well bay concrete deck, and 2,232 trips for removal of asphalt pavement and contaminated soil and replacement with clean soil. As shown in Table 4.13-1, the average number of one-way passenger trips associated with Rincon Island is anticipated to be 13 trips per day.

As summarized in Table 2-3, Project decommissioning activities at Rincon Island would generate 1,992 truck trips (1,032 trips associated with export of scrap materials from structure and pavement demolition, as well as removal of contaminated soil and interstitial water and 960 trips for import of clean soil for backfill of the excavation). These trips would be spread out intermittently for the duration of the Rincon Island decommissioning tasks (15 months) but would average approximately five truck trips per day.

Although these activities would generate additional trips on local roadways, CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks), not heavy-duty trucks (Governor's Office of Planning and Research 2018b).

Although the Project would not result in significant impacts to Traffic and Transportation, a Recreational Site Access and Traffic Management Plan (**MM REC-1**) would be implemented to coordinate truck traffic. Additionally, CSLC would provide notices to local residents prior to Project implementation regarding Project timing and hours. A less than significant impact would result.

Public Facilities Retention Option

Since the Operator's building would still be removed under this option and only water and septic piping and the buried septic tank retained, worker trip generation under this option would not change, and it is not expected to result in a significant change to the number of truck trips or potential impacts to Transportation resources. A less than significant impact would result.

SCC Parcel

Option 1: Native Revegetation and Access Improvements

With respect to passenger vehicle VMT, based on Table 2-8, revegetation and construction of public access improvements is anticipated to generate approximately 101 passenger round trips by workers (assuming no carpooling using a worst-case scenario). As shown in Table 4.13-1, the average number of worker trips for SCC Parcel Option 1 is anticipated to be 20 one-way trips per day.

As summarized in Table 2-3, Project decommissioning activities for Option 1 at the SCC Parcel would generate a total of 17 truck trips (10 trips associated with export of displaced non-native vegetation and soil, and waste from removal of coastal hazards along the shoreline and seven trips would be required for import of site improvements including a bench, sign, native plants, crushed aggregate for trail improvements, and stairway construction). These trips would be spread out intermittently for the 10 workdays and would average three one-way trips per day.

CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks) not heavy-duty trucks (Governor's Office of Planning and Research 2018b). Therefore, VMT generated by Project-related heavy-duty truck trips at the SCC Parcel would not result in a significant impact.

Although the Project would not result in significant impacts to Traffic and Transportation, a Recreational Site Access and Traffic Management Plan to coordinate truck traffic (**MM REC-1**) would be implemented. Additionally, CSLC would provide notices to local residents prior to Project implementation regarding Project timing and hours. A less than significant impact would result.

<u>Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm</u>

With respect to passenger vehicle VMT, based on Table 2-8, revegetation, construction of public access improvements and placement of cobble is anticipated to generate approximately 151 passenger vehicle round trips by workers (assuming no carpooling as a worst-case scenario). As shown in Table 4.13-1, the average number of one-way worker trips for SCC Parcel Option 2 is anticipated to be 15 trips per day. As this volume is less than the 110 passenger vehicle trips per day, the Project is consistent with Section 15064.3 of the State CEQA Guidelines, and Project activities during SCC Parcel Option 2 would result in a less than significant transportation impact.

As summarized in Table 2-3, Project decommissioning activities for SCC Parcel Option 2 would include all of the truck trips associated with Option 1, but would also generate approximately 250 truck trips associated with import of cobble for installation of the cobble back berm and total approximately 507 truck trips.

These trips would be spread out intermittently for the 20-workday duration of Option 2 and would average approximately 51 one-way truck trips per day accessing the Mussel Shoals area for the duration of the Option 2 activities.

CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks) not heavy-duty trucks (Governor's Office of Planning and Research 2018b). Therefore, VMT generated by Project-related heavy-duty truck trips at the SCC Parcel would not result in a significant impact.

Although the Project would not result in significant impacts to Traffic and Transportation, a Recreational Site Access and Traffic Management Plan to coordinate truck traffic (**MM REC-1**) would be implemented. Additionally, CSLC would provide notices to local residents prior to Project implementation regarding Project timing and hours. A less than significant impact would result.

<u>Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage</u>

With respect to passenger vehicle VMT, based on Table 2-8, revegetation, construction of public access improvements and placement of riprap is anticipated to generate approximately 171 passenger vehicle round trips by workers (assuming no carpooling using a worst-case scenario). As shown in Table 4.13-1, the average number of one-way worker trips for SCC Parcel Option 3 is anticipated to be 14 passenger trips per day.

As summarized in Table 2-3, Project decommissioning activities for SCC Parcel Option 3 would include all of the truck trips associated with Option 1, but would also generate approximately 36 truck trips associated with import of riprap for installation of riprap along the parcel frontage and would total 53 truck trips. As shown in Table 4.13-2, these trips would be spread out intermittently for the 25 workday duration of Option 3 and would average four one-way truck trips per day.

CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks) not heavy-duty trucks (Governor's Office of Planning and Research 2018b). Therefore, VMT generated by Project-related heavy-duty truck trips at the SCC Parcel would not result in a significant impact.

Although the Project would not result in significant impacts to Traffic and Transportation, a Recreational Site Access and Traffic Management Plan to coordinate truck traffic (**MM REC-1**) would be implemented. Additionally, CSLC would provide notices to local residents prior to Project implementation regarding Project timing and hours. A less than significant impact would result.

Onshore Pipeline Connections

With respect to passenger vehicle VMT, based on Table 2-8, decommissioning activities are anticipated to generate approximately 200 passenger vehicle round trips by workers (assuming no carpooling using a worst case scenario). As shown in Table 4.13-1, the average number of one-way worker trips for the OPC decommissioning is anticipated to be 14 one-way passenger trips per day.

As summarized in Table 4.13-2, Project decommissioning activities for OPC decommissioning would include four truck trips for disposal of pipe sections, two truck trips for disposal of flush water, and another two truck trips for import of concrete slurry for a total of eight truck trips. These trips would be spread out intermittently for the duration of OPC decommissioning activities (anticipated to be approximately 20 days).

CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks) not heavy-duty trucks (Governor's Office of Planning and Research 2018b). Therefore, VMT generated by project-related heavy-duty truck trips at the OPC would not result in a significant impact.

Although the Project would not result in significant impacts to Traffic and Transportation, a Recreational Site Access and Traffic Management Plan to coordinate truck traffic (**MM REC-1**) would be implemented. Additionally, CSLC would provide notices to local residents prior to Project implementation regarding Project timing and hours. A less than significant impact would result.

Onshore Facility

<u>Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation</u>

With respect to passenger vehicle VMT, based on Table 2-8, remediation activities are anticipated to generate approximately 112 passenger vehicle round trips by workers (assuming no carpooling using a worst-case scenario). As shown in Table 4.13-1, the average number of one-way passenger trips associated with Onshore Facility Option 1 is anticipated to be 10 trips per day.

Onshore Facility Remediation Option 1 would be limited primarily to installation of additional asphalt surface cap material, the sheet pile wall, and groundwater monitoring wells. As summarized in Table 4.13-2, Option 1 would require a total of approximately 488 truck trips, and these trips would be spread out intermittently for the duration of Option 1 (estimated at 22 workdays or 5 weeks during construction) for an average of 44 one-way trips per day.

Although these activities would generate additional trips on local roadways, CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks), not heavy-duty trucks (Governor's Office of Planning and Research 2018b). Therefore, VMT generated by project-related heavy-duty truck trips at the Onshore Facility would not result in a significant impact.

Although the Project would not result in significant impacts to Traffic and Transportation, a Recreational Site Access and Traffic Management Plan to coordinate truck traffic (**MM REC-1**) would be implemented. Additionally, CSLC would provide notices to local residents prior to Project implementation regarding Project timing and hours. A less than significant impact would result.

Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation

As summarized in Table 4.13-2, Onshore Facility Remediation Option 2 would require a total of approximately 1,838 truck trips (export of recycled asphalt base, soil excavation, and backfill with clean soil). These trips would be spread out intermittently for the duration of Option 2 (estimated at 45 workdays or 9 weeks during construction) and would average 82 one-way trips per day.

Although these activities would generate additional trips on local roadways, CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks) (Governor's Office of Planning and Research 2018b). Therefore, VMT generated by project-related heavy-duty truck trips at the Onshore Facility would not result in a significant impact. Regardless, **MM REC-1** would be implemented to further reduce potential impacts to transportation and traffic as further described below.

With respect to passenger vehicle VMT, based on Table 2-8, remediation activities are anticipated to generate approximately 180 passenger vehicle round trips by workers (assuming no carpooling using a worst-case scenario). As shown in Table 4.13-1the average number of one-way passenger vehicle trips associated with Onshore Facility Option 2 is anticipated to be eight trips per day.

As this volume is less than the 110 passenger vehicle trips per day, the Project is consistent with Section 15064.3 of the State CEQA Guidelines, and the Onshore Facility Option 2 Project activities would result in a less than significant transportation impact.

Although the Project would not result in significant impacts to Traffic and Transportation, a Recreational Site Access and Traffic Management Plan to coordinate truck traffic (**MM REC-1**) would be implemented. Additionally, CSLC would provide notices to local residents prior to Project implementation regarding Project timing and hours. A less than significant impact would result.

Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation

With respect to passenger vehicle VMT, based on Table 2-8, remediation activities are anticipated to generate approximately 160 passenger vehicle round trips by workers (assuming no carpooling using a worst-case scenario), with an additional 1,728 one-way trips for weekly land treatment area tilling. As shown in Table 4.13-1, the average number of one-way passenger trips associated with Onshore Facility Option 3 is anticipated to be six trips per day.

As summarized in Table 4.13-1, Onshore Facility Remediation Option 3 would include heavy duty truck trips primarily associated with demolition of the existing recycled asphalt base (a total of 488 truck trips). These trips would be spread out intermittently for the duration of Option 3 (estimated at 57 workdays or 12 weeks during construction) and would average 17 one-way trips per day. Other trips associated with excavation and soil treatment would remain onsite.

Although demolition activities would generate additional trips on local roadways, CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks), not heavy-duty trucks (Governor’s Office of Planning and Research 2018b). Therefore, VMT generated by project-related heavy-duty truck trips at the Onshore Facility would not result in a significant impact.

Although the Project would not result in significant impacts to Traffic and Transportation, a Recreational Site Access and Traffic Management Plan to coordinate truck traffic (**MM REC-1**) would be implemented. Additionally, CSLC would provide notices to local residents prior to Project implementation regarding Project timing and hours. A less than significant impact would result.

Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation

With respect to passenger vehicle VMT, based on Table 2-8, remediation activities are anticipated to generate approximately 164 passenger vehicle round trips by workers (assuming no carpooling using a worst-case scenario). As shown in Table 4.13-1, the average number of one-way passenger trips associated with Onshore Facility Option 4 is anticipated to be 6 trips per day.

As summarized in Table 4.13-1, Onshore Facility Remediation Option 4 would include heavy duty truck trips primarily associated with demolition of the existing recycled asphalt base and import of cement (a total of 498 truck trips). These trips would be spread out intermittently for the duration of Option 4 (estimated at 55 workdays or 11 weeks during construction) and would average 18 one-way trips per day. Other equipment associated with in-situ soil mixing would remain onsite.

Although demolition activities would generate additional trips on local roadways, CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks) not heavy-duty trucks (Governor's Office of Planning and Research 2018b). Therefore, VMT generated by Project-related heavy-duty truck trips at the Onshore Facility would not result in a significant impact.

Although the Project would not result in significant impacts to Traffic and Transportation, a Recreational Site Access and Traffic Management Plan to coordinate truck traffic (**MM REC-1**) would be implemented. Additionally, CSLC would provide notices to local residents prior to Project implementation regarding Project timing and hours. A less than significant impact would result.

Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation

With respect to passenger vehicle VMT, based on Table 2-8, remediation activities are anticipated to generate approximately 216 passenger vehicle round trips by workers (assuming no carpooling using a worst-case scenario). As shown in Table 4.13-1, the average number of one-way passenger trips associated with Onshore Facility Option 5 is anticipated to be 17 trips per day.

As summarized in Table 4.13-2, heavy duty truck traffic for Onshore Facility Remediation Option 5 would be primarily associated with soil excavation and backfill with clean soil (a total of 164 truck trips). These trips would be spread out intermittently for the duration of Option 5 (estimated at 25 workdays or 5 weeks during construction) and would average 13 one-way truck trips per day.

Although these activities would generate additional trips on local roadways, CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks) not heavy-duty trucks (Governor's Office of Planning and Research 2018). Therefore, VMT generated by project-related heavy-duty truck trips at the Onshore Facility would not result in a significant impact.

Although the Project would not result in significant impacts to Traffic and Transportation, a Recreational Site Access and Traffic Management Plan to coordinate truck traffic (**MM REC-1**) would be implemented. Additionally, CSLC would provide notices to local residents prior to Project implementation regarding Project timing and hours. A less than significant impact would result.

Mitigation Measures

None required.

4.13.5 Cumulative Impacts Analysis

Impact T-2: Contribution to Cumulative Vehicle Trip Generation and VMT

Project-related vehicle trips would incrementally contribute to cumulative vehicle trips and VMT that may be inconsistent with CEQA Guidelines Section 15064.3 **(Less than Significant).**

Impact Discussion

Cumulative projects identified in Section 3.0 would generate vehicle trips and VMT in the Project region. However, the Project would not exceed the passenger vehicle screening threshold (110 trips per day) provided by the Governor's Office of Planning and Research (OPR) (2018b). Therefore, the Project's contribution to cumulative VMT generation would not be cumulatively considerable. A less than significant impact would result.

Mitigation Measures

None required.

4.13.6 Summary of Impacts and Proposed Mitigation Measures

Table 4.13-3. Summary of Transportation/Traffic Impacts and Mitigation Measures

Impact	Mitigation Measures
Impact T-1: Decommissioning Vehicle Trip Generation and VMT	**MM REC-1:** Recreational Site Access and Traffic Management Plan
Impact T-2: Contribution to Cumulative Vehicle Trip Generation and VMT	None Required

4.14 UTILITIES AND SERVICE SYSTEMS

The proposed Project does not include permanent components that would require or alter existing utilities or service systems. The proposed Project consists of short-term decommissioning activities and does not have any solid waste or wastewater requirements other than from construction-related activities. During decommissioning, several different waste streams would be generated (see Table 2-2 for estimated import and export of waste and materials generated during Project decommissioning activities).

In accordance with County policies, where feasible, materials removed (i.e., steel, concrete, and scrap metal) would be recycled. Recyclable materials are anticipated to be taken southward to Standard Industries in Ventura (1905 Lirio Avenue) or State Ready Mix Recycling – Asphalt and Concrete in Oxnard (3127 Los Angeles Avenue), Ventura County. Non-hazardous petroleum hydrocarbon-contaminated waste (such as soils that are known to exist at Rincon Island or the Onshore Facility) would be transported to Waste Management in Simi Valley (195 W. Los Angeles Avenue), Ventura County for disposal. Imported clean soil required for backfill at Rincon Island or cobbles required for the SCC Parcel improvements are anticipated to come from Grimes Rock in Fillmore (3500 Grimes Canyon Road), Ventura County. Contaminated interstitial water encountered at Rincon Island or wastewater flushed through the OPC would be captured within vacuum trucks and brought directly to World Oil in South Gate (9302 Garfield Avenue), Los Angeles County (or equivalent) for disposal.

Permitted waste receiving capacity or processing throughput for these facilities is further described below.

4.14.1 Environmental Setting

4.14.1.1 Solid Waste Disposal or Recycling

Waste Management, Simi Valley Landfill. Non-hazardous contaminated soils from Rincon Island and the Onshore Facility would be transported by truck to the Simi Valley Landfill located at 2801 Madera Road in Simi Valley, California. The Simi Valley Landfill provides approximately 60 percent of Ventura County's daily refuse disposal needs, and 75 percent of all tons accepted at the facility originate in Ventura County. The facility is permitted to accept up to 3,000 tons per day of refuse and can accept 6,250 tons per day of recyclable materials (WM 2023).

Standard Industries, Saticoy. Recyclable steel material generated during proposed Project decommissioning activities (from Rincon Island and the OPC) would be transported by truck to Standard Industries located at 1905 Lirio Avenue in Saticoy, California. Standard Industries is a private, 10-acre recycling facility in Ventura County. Standard Industries will receive the scrap material and then process it for recycling and reuse. Since processing scrap metal through Standard Industries does not require long-term storage, total remaining capacity of this facility is not applicable.

State Ready Mix Recycling, Oxnard. Demolished concrete or asphalt would be transported by truck to State Ready Mix located at 3127 Los Angeles Avenue in Oxnard, California, for recycling. State Ready Mix accepts all types of demolition concrete and asphalt and recycles it into road base material that can be reused in future road pavement construction. This facility is one of the largest certified asphalt and concrete recyclers in Ventura County and can accept any amount and type of concrete and asphalt (State Ready Mix 2023). Since processing concrete through State Ready Mix Recycling does not require long-term storage, total remaining capacity of this facility is not applicable.

Gold Coast Recycling, Ventura County. Gold Coast Recycling and Transfer Station is located at 5275 Colt Street in Ventura, California. This facility would be utilized for the small portion of waste generated from proposed Project decommissioning activities that cannot be recycled. The facility is 75,000 square feet and works in conjunction with Harrison Industries for waste receiving and processing. Recycling of materials at the transfer station does not require long-term storage, therefore total remaining capacity is not applicable.

However, items that cannot be recycled are most likely taken by Gold Coast and Harrison to the 343-acre Toland Road Landfill in Santa Paula, California, that has a maximum permitted throughput of 2,864 tons per day and has approximately half of their capacity left (16,068,864 cubic yards) (CalRecycle 2023).

4.14.1.2 Wastewater

World Oil, Southgate, Los Angeles County. Wastewater would be taken to World Oil located at 9302 Garfield Avenue in South Gate, Los Angeles County, California. World Oil recycles, produces, and transports petroleum products throughout the United States. World Oil would process the wastewater received in accordance with their existing permits with Los Angeles County.

4.14.1.3 Aggregate Provision and Recycling

Grimes Rock, Fillmore, Ventura County. Grimes Rock is located at 3500 Grimes Canyon Road in Fillmore, California. Grimes Rock is one of the largest construction aggregate processing plants in Ventura County, and produces a variety of aggregate products. Grimes Rock would be providing source material for the SCC Parcel and potential soil for backfill at Rincon Island and the Onshore Facility, if necessary. Grimes Rock would also be available to provide recycling of concrete or asphalt waste from demolition activities at Rincon Island or the Onshore Facility.

4.14.2 Regulatory Setting

There are no federal or state regulations, authorities, or administering agencies that regulate utilities and service systems that are specifically applicable to the proposed Project. Local laws, regulations, and policies are included below.

4.14.2.1 Local

Ventura County 2040 General Plan (2020)

Public Facilities, Services, and Infrastructure Element

Policies included within the Ventura County 2040 General Plan Public Facilities, Services, and Infrastructure Element (Ventura County 2020) include the following related to utilities and service systems:

- **PFS-5.3: Solid Waste Capacity.** The County shall require evidence that adequate capacity exists within the solid waste system for the processing, recycling, transmission, and disposal of solid waste prior to approving discretionary development.
- **Policy PFS-5.9: Waste Reduction Practices for Discretionary Development.** The County shall encourage applicants for discretionary development to employ practices that reduce the quantities of wastes generated and engage in recycling activities to further reduce the volume of waste disposed of in landfills.

4.14.3 Significance Criteria

According to the Ventura County Initial Study Assessment Guidelines (2011), any project that would individually or cumulatively 1) cause the disruption or re-routing of an existing utility facility or 2) increase demand on a utility that results in expansion of an existing utility facility that has the potential for secondary impacts, has the potential for significant impacts.

The proposed Project does not have the potential to impact utilities or service systems. Therefore, for the purposes of this analysis, a significant impact would occur if the proposed Project:

- Would generate solid waste in excess of State or local standards, in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals
- Does not comply with federal, state, and local management and reduction statutes and regulations related to solid waste

4.14.4 Impact Analysis and Mitigation

The proposed Project would generate solid waste in the form of steel scrap metal, asphalt and concrete, and contaminated soil and wastewater during construction. In accordance with County policies, where feasible, materials removed (i.e., steel, concrete, and scrap metal) would be recycled. Potential impacts to utilities as a result of solid waste and wastewater disposal at each Project site are discussed below.

Impact US-1: Generation of Project Waste During Decommissioning Activities

Proposed Project decommissioning would generate various waste streams that would be taken to local waste receiving/recycling facilities for disposal **(Less than Significant).**

Impact Discussion

Rincon Island

Proposed Project decommissioning activities at Rincon Island would generate the following waste streams (Table 4.14-1).

Table 4.14-1. Anticipated Waste Disposal Volumes and Receiving Facility Capacity – Rincon Island

Item	Estimated Truckloads*	Anticipated Receiving Facility	Permitted Throughput or Remaining Capacity at Recycling or Disposal Facility
Scrap Materials from Structure Demolition	31	Standard Industries	Facility Has Capacity to Handle Throughput of Scrap Metal Recycling
Pavement and Concrete	31	State Ready Mix	Facility Has Capacity to Accept Any Amount of Concrete and Asphalt for Recycling
Hydrocarbon Contaminated Soil	960	Waste Management	Permitted to Accept up to 3,000 tons per day of refuse
Hydrocarbon Contaminated Interstitial Water	10	World Oil	Facility Has Capacity to Accept Wastewater for Processing

*Estimated truckloads are based upon a 10 cubic yard weight limit for trucks hauling from Rincon Island based on causeway weight restrictions

Work activities at Rincon Island would occur for approximately 15 months. As shown in Table 4.14-1, the anticipated disposal facilities for each waste stream have adequate capacity to process the solid and liquid wastes that will be generated from decommissioning at the Rincon Island Project site. All Project materials other than contaminated soils and interstitial water would be recycled, which is in compliance with AB 939 (California Integrated Waste Management Act 1989) requiring that 50 percent of all waste be diverted from landfills. Additionally, contaminated soils containing non-hazardous levels of petroleum hydrocarbons are permitted by the receiving landfills to be utilized as cover.

Based on remaining available capacity and permitted processing throughput, a less than significant impact on solid waste or wastewater service systems would result.

Public Facilities Retention Option

The public facilities retention option would include leaving the existing wastewater facilities (septic tank and piping) in place. Accordingly, one fewer truck trip to Standard Industries would be necessary. As indicated above, Standard Industries has adequate capacity to process the scrap metal waste generated during Rincon Island decommissioning activities. This option would slightly reduce that throughput, which could still be accommodated by Standard Industries. A less than significant impact would result.

SCC Parcel

Option 1

Option 1 would primarily include import of materials intended to improve public access onsite. A small amount of non-native vegetation would be replaced, which would generate approximately 181 cubic yards of waste (requiring 10 trips following drying of plant material) that would be taken to Gold Coast Recycling. To the extent feasible, native soil would be retained onsite. The coastal hazard materials comprised of concrete would be taken to Grimes Rock for recycling and scrap metal would be recycled at Standard Industries. Based on the small volume of material generated as waste, and the concrete material being recycled, a less than significant impact on solid waste facilities would result.

Table 4.14-2. Anticipated Waste Disposal Volumes and Receiving Facility Capacity – SCC Parcel Option 1

Item	Estimated Truckloads*	Anticipated Receiving Facility	Permitted Throughput or Remaining Capacity at Recycling or Disposal Facility
Displaced Non-native Vegetation	10	Gold Coast Recycling	Toland Road Can Accept 2,864 Tons per Day

Item	Estimated Truckloads*	Anticipated Receiving Facility	Permitted Throughput or Remaining Capacity at Recycling or Disposal Facility
Coastal Hazards Removal	2	Grimes Rock/ Standard Industries	Facility Has Capacity to Accept Any Amount of Concrete and Asphalt for Recycling/ Facility Has Capacity to Handle Throughput of Scrap Metal Recycling

*Estimated truckloads are based upon a 10 cubic yard truck capacity for residential street access from the SCC Parcel. Drying and compaction of native plant material would reduce volume by approximately 50% before export.

Option 2

The anticipated waste disposal volume for SCC Parcel Option 2 is provided in Table 4.14-3 below. The only activities from Option 2 that would generate waste include disposal of non-native vegetation and excess soil and removal of the coastal hazards along the shoreline. All other activities would require import of materials, which is not related to waste disposal and is therefore addressed above in Section 4.13, Transportation and Traffic.

Table 4.14-3. Anticipated Waste Disposal Volumes and Receiving Facility Capacity – SCC Parcel Option 2

Item	Estimated Truckloads*	Anticipated Receiving Facility	Permitted Throughput or Remaining Capacity at Recycling or Disposal Facility
Displaced Non-native Vegetation and Soil	250	Gold Coast Recycling	Toland Road Can Accept

Item	Estimated Truckloads*	Anticipated Receiving Facility	Permitted Throughput or Remaining Capacity at Recycling or Disposal Facility
			2,864 Tons per Day
Coastal Hazards Removal	2	Grimes Rock/ Standard Industries	Facility Has Capacity to Accept Any Amount of Concrete and Asphalt for Recycling/ Facility Has Capacity to Handle Throughput of Scrap Metal Recycling

*Estimated truckloads are based upon a 10 cubic yard truck capacity for residential street access from the SCC Parcel

As shown in Table 4.14-3, the anticipated disposal facilities for each waste stream have adequate capacity to process the solid wastes that will be generated from decommissioning at the SCC Parcel. As feasible, material will be recycled, which is in compliance with AB 939 (California Integrated Waste Management Act 1989) requiring that 50 percent of all waste be diverted from landfills. Non-native vegetation and excess soil will be taken to the local landfill (Toland Road) to be mulched and utilized as cover. Based on remaining available capacity and permitted processing throughput, a less than significant impact on solid waste facilities would result.

Option 3

Option 3 would only include import of materials, with the exception of the non-native vegetation removal and the removal of coastal hazards. A small amount of non-native vegetation would be replaced, which would generate approximately 181 cubic yards of waste (requiring 10 trips following drying of plant material) that would be taken to Gold Coast Recycling. To the extent feasible, native soil would be retained onsite. Concrete waste would be taken to Grimes Rock for recycling. Therefore, a less than significant impact on solid waste facilities would result.

Table 4.14-4. Anticipated Waste Disposal Volumes and Receiving Facility Capacity – SCC Parcel Option 3

Item	Estimated Truckloads*	Anticipated Receiving Facility	Permitted Throughput or Remaining Capacity at Recycling or Disposal Facility
Displaced Non-native Vegetation	10	Gold Coast Recycling	Toland Road Can Accept 2,864 Tons per Day
Coastal Hazards Removal	2	Grimes Rock/ Standard Industries	Facility Has Capacity to Accept Any Amount of Concrete and Asphalt for Recycling/ Facility Has Capacity to Handle Throughput of Scrap Metal Recycling

*Estimated truckloads are based upon a 10 cubic yard truck capacity for residential street access from the SCC Parcel

Onshore Pipeline Connections

Table 4.14-5 provides a summary of the anticipated waste disposal volumes that will be generated during decommissioning activities at the OPC.

Table 4.14-5. Anticipated Waste Disposal Volumes and Receiving Facility Capacity – OPC

Item	Estimated Truckloads*	Anticipated Receiving Facility	Permitted Throughput or Remaining Capacity at Recycling or Disposal Facility
Onshore Pipeline Connections (Pipeline Segments and Casing)	4	Standard Industries	Facility Has Capacity to Handle Throughput of Scrap Metal Recycling
Flush Water	2	World Oil	Facility Has Capacity to Accept Wastewater for Processing

*Estimated truckloads are based upon a 20 cubic yard end-dump truck capacity for trips from the OPC

As shown in Table 4.14-5, the anticipated disposal facilities for each waste stream have adequate capacity to process the solid and liquid wastes that will be generated from decommissioning of the OPC. The removed pipeline segments and casing material will be recycled, which is in compliance with AB 939 (California Integrated Waste Management Act 1989) requiring that 50 percent of all waste be diverted from landfills. Based on remaining available capacity and permitted processing throughput, a less than significant impact on utilities or service systems would result.

Onshore Facility

Table 4.14-6 provides a summary of the anticipated waste disposal volumes that will be generated during decommissioning activities at the Onshore Facility (Options 1 through 5). A discussion of potential impacts of each Option is provided below.

Table 4.14-6. Anticipated Waste Disposal Volumes and Receiving Facility Capacity

Item	Estimated Truckloads	Anticipated Receiving Facility	Permitted Throughput or Remaining Capacity at Recycling or Disposal Facility
Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation	0	N/A	N/A
Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation			
Recycled Asphalt Base	468	State Ready Mix	Facility Has Capacity to Accept Any Amount of Concrete and Asphalt for Recycling
Hydrocarbon Contaminated Soil	675	Waste Management	Permitted to Accept up to 3,000 tons per day of refuse
Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation			
Recycled Asphalt Base	468	State Ready Mix	Facility Has Capacity to Accept Any Amount of Concrete and

Item	Estimated Truckloads	Anticipated Receiving Facility	Permitted Throughput or Remaining Capacity at Recycling or Disposal Facility
			Asphalt for Recycling
Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation	0	N/A	N/A
Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation			
Hydrocarbon Contaminated Soil	72	Waste Management	Permitted to Accept up to 3,000 tons per day of refuse

*Estimated truckloads are based upon a 20 cubic yard end-dump truck capacity for trips from the Onshore Facility
N/A = Not Applicable (Does not require disposal of waste materials as treatment is not required or would occur onsite)

Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation

Onshore Facility Option 1 would leave capped contaminated soil material in place and address groundwater contamination through in-situ methods underground. No waste disposal would be required. No impact on utilities and service systems would result.

Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation

Onshore Facility Option 2 would require disposal of the existing recycled asphalt base (9,360 cubic yards) and contaminated soil (7,500 cubic yards). If authorized by the responsible permitting agencies, this remediation option would include pump and treat groundwater remediation techniques where the contaminated groundwater would be filtered and tested to meet the requirements to discharge onsite into the County of Ventura-operated sanitary sewer system. The recycled asphalt would be taken to State Ready Mix to be recycled into asphalt for future use. Contaminated soil would be taken to Waste Management for disposal. Waste material would be staged onsite and transport to Waste Management would be coordinated directly with them with respect to their receiving capacity. Each receiving facility has adequate capacity to accept the anticipated volume of waste from Option 2. A less than significant impact on utilities and service systems would result.

Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation

Onshore Facility Option 3 would necessitate the same volume of excavation as Option 2 but would utilize an area onsite for soil treatment and bioremediation. If authorized by the responsible permitting agencies, this remediation option would include pump and treat groundwater remediation techniques where the contaminated groundwater would be filtered and tested to meet the requirements to discharge onsite into the County of Ventura-operated sanitary sewer system. The only waste generated would be from existing asphalt that would be removed to access the excavation areas, which would generate approximately 468 truckloads of asphalt base material. The recycled asphalt would be taken to State Ready Mix to be recycled into asphalt for future use. A less than significant impact on utilities and service systems would result.

Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation

If authorized by the responsible permitting agencies, Onshore Facility Option 4 would utilize in-situ remediation methodology to address soil and groundwater contamination onsite. No trucking or processing of waste would be required. No impact on utilities and service systems would result.

Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation

Onshore Facility Option 5 would require disposal of contaminated soil (800 cubic yards). If authorized by the responsible permitting agencies, this remediation option would include pump and treat groundwater remediation techniques where the contaminated groundwater would be filtered and tested to meet the requirements to discharge onsite into the County of Ventura-operated sanitary sewer system. The recycled asphalt would be taken to State Ready Mix to be recycled into asphalt for future use. Contaminated soil would be taken to Waste

Management for disposal. Each receiving facility has adequate capacity to accept the anticipated volume of waste from Option 5. A less than significant impact on utilities and service systems would result.

Mitigation Measures

None required.

4.14.5 Cumulative Impacts Analysis

Impact US-2: Cumulative Generation of Waste that Would Affect Waste Receiving Facilities

Project activities would generate waste that would have the potential to contribute to cumulative volumes at waste receiving facilities **(Less than Significant).**

Impact Discussion

The proposed Project would not include the addition of any permanent components that would require or alter existing utilities or service systems. A short-term increase in construction waste would occur during the Project, however all waste that can be recycled would be. The remaining volumes would be brought to facilities with sufficient remaining capacity and permitted throughput to accept the waste. No impacts would result that would have the potential to contribute to cumulative impacts to utilities or service systems.

Mitigation Measures

None required.

4.14.6 Summary of Impacts and Proposed Mitigation Measures

Table 4.14-7. Summary of Utilities and Service Systems Impacts and Mitigation Measures

Impact	Mitigation Measures
Impact US-1: Generation of Project Waste During Decommissioning Activities	None Required
Impact US-2: Cumulative Generation of Waste that Would Affect Waste Receiving Facilities	None Required

4.15 WILDFIRE

This section describes the potential for wildfire to occur within the vicinity of the proposed Project sites, evaluates the type and significance of wildfire impacts that may occur as a result of the proposed Project, and identifies measures to avoid or substantially lessen any impacts found to be potentially significant.

5.2.1 Environmental Setting

The proposed Project is located within the unincorporated western portion of Ventura County. Although this is a coastal area, the Project sites are surrounded by undeveloped hillsides that have been subject Ito a history of wildfires. The California Department of Forestry and Fire Protection (CAL FIRE) recently released updated Fire Hazard Severity Zone Maps that update areas in California's unincorporated, rural areas (also referred to as the State Responsibility Area). The update provides a hazard score based on the factors that influence fire likelihood and fire behavior. Many factors are considered, such as fire history, existing and potential fuel (natural vegetation), predicted flame length, blowing embers, terrain, and typical fire weather for an area. These zones fall into the following classifications – moderate, high, and very high.

The onshore sites (Rincon Island causeway entrance, the upland portion of the SCC Parcel, OPC, and Onshore Facility) are all located within an area designated by CAL FIRE as very high risk for fire hazards to occur (CAL FIRE 2023).

4.15.1.1 Wildfire Protection

Wildfire protection in California is the responsibility of the state, local, or federal government depending on the location. Local responsibility areas generally include cities, cultivated agriculture lands, and portions of the desert. "State Responsibility Area" is a legal term defining the area where the State has financial responsibility for wildfire protection. The onshore Project sites are located within an area defined as a State Responsibility Area for wildfire protection. Local Responsibility Area fire protection is typically provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract to the local government. The Ventura County CAL FIRE office is located at 2471 Latigo Avenue in Oxnard, California. The Ventura County office contracts with the Ventura County Fire Department to provide emergency response services for the unincorporated areas of Ventura County, California where the onshore Project sites are located.

5.2.1 Regulatory Setting

The onshore Project sites are within the designated State Responsibility Area. As such, Statewide policies pertaining to the proposed Project are included in Appendix B. Local laws, regulations, and policies are included below.

4.15.1.2 Local

Ventura County 2040 General Plan (2020)

Hazards and Safety Element

Because the sites are located within Ventura County, applicable local policies included within the Hazards and Safety Element of the Ventura County 2040 General Plan (Ventura County 2020) are provided below.

- **Policy HAZ-1.4: Development in High Fire Hazard Severity Zones and Hazardous Fire Areas.** The County shall require the recordation of a Notice of Fire Hazard with the County Recorder for all new discretionary entitlements (including subdivisions and land use permits) within areas designated as Hazardous Fire Areas by the Ventura County Fire Department or High Fire Hazard Severity Zones by the California Department of Forestry and Fire Protection (CAL FIRE).

5.2.1 Significance Criteria

The following significance criteria for wildfire are derived from Appendix G of the State CEQA Guidelines. Impacts related to wildfire are considered significant if the proposed Project would:

- Require the installation or maintenance of 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
- Exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire

4.15.4 Impact Analysis and Mitigation

Impact WF-1: Temporary Increase in Risk to Wildfire During Decommissioning Activities Within an Area Designated as Very High Fire Hazard Severity Zone by CAL FIRE

Proposed Project decommissioning activities would utilize construction equipment and fuels within an area designated as a very high fire hazard severity zone **(Less than Significant with Mitigation).**

Impact Discussion

Decommissioning activities would require the temporary introduction of construction equipment that would utilize flammable fuels, such as diesel and gasoline. Additionally, operation of this equipment would generate heat and potential spark from their hot tailpipes and exhaust. The onshore Project sites are located within an area designated by CAL FIRE as a very high fire hazard severity zone, although the actual sites themselves are limited in this capacity based on their location and current status (idle with most equipment removed), as further discussed below.

Rincon Island

Rincon Island is outside of the State Responsibility Area mapped by CAL FIRE, but a portion of the causeway entrance is included within the area designated as a very high fire hazard severity zone. However, the causeway entrance is an asphalt paved open space area bounded by fencing and riprap, that is free of vegetation. All former oil and gas piping infrastructure has been removed from the causeway entrance. As such, use of the causeway entrance for access to Rincon Island or as an equipment staging area would not contribute to an increase in fire risk. No impact would result.

<u>Public Facilities Retention Option</u>

The public facilities retention option would be located subsurface at Rincon Island offshore and would require less equipment to retain the existing sewer facilities onsite. No impact would result.

SCC Parcel

<u>Option 1: Native Revegetation and Access Improvements</u>

The SCC Parcel is located directly adjacent to the Pacific Ocean along the coastline. Only the upper portion of the SCC Parcel was included in the CAL FIRE designated very high fire hazard severity zone. This area is currently primarily vegetated with hottentot-fig ice plant and a mix of native and non-native vegetation, as well as open space and informal trails. The majority of work activities would be in the upland portion of the SCC Parcel over 10 workdays (2 weeks) and would be completed by hand crews (i.e., removal of non-native vegetation and replacement with natives). Equipment would require access through and within this area for trail improvements, installation of signage and a bench, installation of the access stairway, and to remove coastal hazards along the shoreline. However, vegetation present within the SCC Parcel is primarily low lying and contains species that retain water in the marine climate and would not be a significant fuel source. Additionally, equipment would be staged at the adjacent causeway entrance when not in use, which would minimize exposure. Further, a number of standard safeguards would be incorporated into the Project workplans and the contractor's related health and safety plans to reduce potential risks, such as a requirement that fire extinguishers be kept in all Project vehicles and equipment for use in immediate response efforts. As such, a less than significant impact would result.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

Option 2 would include all of the work activities described in Option 1, which would result in a less than significant impact to wildfire risk. Additionally, Option 2 includes installation of a cobble back berm under this area requiring an additional 10 workdays (for a total of 20 workdays or 4 weeks) of construction equipment onsite. However, Option 2 necessitates temporary removal of the vegetation on the back portion of the parcel in order to install the cobble beneath the surface (native soil and vegetation would be replaced following installation). As such, during cobble installation, equipment would not be in contact with any vegetation as a fuel source. Additionally, as previously discussed, a number of standard safeguards would be incorporated into the Project workplans and the contractor's related health and safety plans to reduce any remaining potential risks, such as a requirement that fire extinguishers be kept in all Project vehicles and equipment for use in immediate response efforts. A less than significant impact would result.

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

Option 3 would include all of the work activities described in Option 1, which would result in a less than significant impact to wildfire risk. Additionally, Option 3 requires an additional 15 workdays (for a total of 25 workdays or 5 weeks) to install approximately 360 cubic yards of riprap along the parcel frontage. To install the riprap, a small crane would be utilized in addition to the other equipment onsite. However, installation of the riprap would occur along the shoreline in an area that is outside of the CAL FIRE very high fire hazard severity zone. Regardless, as previously discussed, a number of standard safeguards would be incorporated into the Project workplans and contractor's related health and safety plans to reduce any remaining potential risks, such as a requirement that fire extinguishers be kept in all Project vehicles and equipment for use in immediate response efforts. A less than significant impact would result.

Onshore Pipeline Connections

The OPC is located within a concrete vault between the shoulder of the existing roadway and an access road where some degree of low-lying grasses and vegetation exists, but which is regularly maintained in proximity to the roadway and railroad right-of-way. During work activities, construction equipment would be present for approximately 29 days.

Although there exists a small potential for construction equipment to ignite dry vegetation in proximity to this area, a number of standard safeguards would be incorporated into the Project Execution Plan (PEP) to reduce potential risks, such as a requirement that fire extinguishers be kept in all Project vehicles and equipment for use in immediate response efforts. Additionally, in accordance with **MM WF-1a**, procedures for minimizing potential ignition would be summarized in a Fire Management and Prevention Plan (FMPP). The FMPP would specify procedures for minimizing potential ignition, including but not limited to: vegetation clearing, parking requirements/restrictions, idling restrictions, smoking restrictions, proper use of gas-powered equipment, and hot work restrictions. Additionally, in accordance with Policy HAZ-1.4 above, **MM WF-1b** would require that Ventura County be notified of the proposed Project activities through a recordation of a Notice of Fire Hazard for the temporary decommissioning activities timeframe.

The proposed decommissioning activities would not expose people or structures either directly or indirectly to a significant risk of loss, injury, or death involving wildland fires. The proposed Project does not include any permanent structures that would create a potential for increased risk of wildfire. Based on these circumstances and with implementation of **MM WF-1a** and **MM WF-1b**, the impact would be less than significant.

Onshore Facility

<u>Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation</u>

The Onshore Facility is located within a primarily paved and vacant dirt lot, that is offset from any significant vegetation fuel source. Option 1 would require approximately 22 workdays (5 weeks) of construction for installation of the surface cap and groundwater bioremediation system. The work areas are located within the interior of the facility that currently contains a paved and vacant dirt lot. No vegetation or fuel source is present that would provide a wildfire fuel source. No impact would result.

<u>Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation</u>

Option 2 would require excavation of approximately 0.48 acre within the Onshore Facility, which would require use of equipment onsite for excavation and import/export of dirt for approximately 45 workdays (9 weeks). However, as previously noted, the excavation areas are located within the interior of the facility that currently contains a paved and vacant dirt lot. No vegetation or fuel source is present that would provide a wildfire fuel source. No impact would result.

<u>Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation</u>

Option 3 would require equipment access to the Onshore Facility for approximately 57 workdays (12 weeks). In addition to the soil excavation areas, Option 3 requires use of a 0.42-acre area west of Los Sauces Creek for soil treatment. Tilling equipment for soil treatment would be utilized one day per week for approximately 72 months (6 years). Use of a tiller in this area, which is in closer proximity to vegetation present along the Los Sauces Creek riparian corridor, is not anticipated to significantly increase wildfire risks. Additionally, a number of standard safeguards would be incorporated into the Project workplans and contractor's related health and safety plans to reduce potential risks, such as a requirement that fire extinguishers be kept in all Project vehicles and equipment for use in immediate response efforts. A less than significant impact would result.

<u>Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation</u>

Option 4 would require equipment access to the Onshore Facility for approximately 55 workdays (11 weeks). However, similar to Option 2, the work areas are located within the interior of the facility that currently contains a paved and vacant dirt lot. No vegetation or fuel source is present that would provide a wildfire fuel source. No impact would result.

<u>Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation</u>

Option 5 would require approximately 25 workdays (5 weeks), and within a more focused work area for excavation. Similar to Option 2, work would occur within the interior of the facility that currently contains a paved and vacant dirt lot. No vegetation or fuel source is present that would provide a wildfire fuel source. No impact would result.

Mitigation Measures

MM WF-1a: Fire Management and Prevention Plan. CSLC (and its contractor) shall develop a Fire Management and Prevention Plan prior to implementation of decommissioning activities at the Onshore Facility and OPC work sites. The Plan shall include, but not be limited to, the following practices:

- All trucks and equipment shall have a fire extinguisher present during use
- Procedures for minimizing potential ignition, including, but not limited to, vegetation clearing, parking requirements/restrictions, idling restrictions, smoking restrictions, proper use of gas-powered equipment, and hot work restrictions
- Daily monitoring of weather conditions and implementing work restrictions during Red Flag Warnings and High to Extreme Fire Danger days

MM WF-1b: Ventura County Noticing Requirements. In accordance with Ventura County Policy HAZ-1.4, CSLC shall file a Notice of Fire Hazard with the County Recorder prior to Project implementation. This is required for Projects requiring discretionary permits within areas designated as Hazardous Fire Areas by the Ventura County Fire Department or High Fire Hazard Severity Zones by the California Department of Forestry and Fire Protection (CAL FIRE).

4.15.5 Cumulative Impacts Analysis

Impact WF-2: Cumulative Impacts to Potential Wildfire
The Project would have the potential to cumulatively contribute to potential sources of wildfire during decommissioning activities **(Less than Significant with Mitigation).**

Impact Discussion

There are no cumulative Projects within the vicinity of the proposed Project sites that would have the potential to contribute to wildfire risks in the same area as the proposed Project. Although the Coast Ranch parcel is contiguous with the proposed Project site, this area is also clear of equipment in a vacant lot, offset from vegetation, and does not contain a significant fuel source. With incorporation of **MM WF-1a** and **MM WF-1b**, cumulative impacts to wildfire would be less than significant.

Mitigation Measures

None required.

4.15.6 Summary of Impacts and Proposed Mitigation Measures

Table 4.15-1. Summary of Wildfire Impacts and Mitigation Measures

Impact	Mitigation Measures
Impact WF-1: Temporary Increase in Risk to Wildfire During Decommissioning Activities Within an Area Designated as Very High Fire Hazard Severity Zone by CAL FIRE	**MM WF-1a:** Fire Management and Prevention Plan **MM WF-1b:** Ventura County Noticing Requirements
Impact WF-2: Cumulative Impacts to Potential Wildfire	**MM WF-1a:** Fire Management and Prevention Plan **MM WF-1b:** Ventura County Noticing Requirements

5.0 PROJECT ALTERNATIVES ANALYSIS

5.1 INTRODUCTION

This section of the Environmental Impact Report (EIR) provides a comparative analysis of the merits of alternatives to the proposed Rincon Phase 2 Decommissioning Project (Project) pursuant to State California Environmental Quality Act (CEQA) Guidelines[15] section 15126.6. According to the State CEQA Guidelines, the discussion of alternatives should focus on alternatives to a project or its location that would feasibly meet the basic objectives of the project while avoiding or substantially lessening one or more of the significant effects of the project. The State CEQA Guidelines indicate that the range of alternatives included in this discussion should be sufficient to allow decision-makers a reasoned choice between alternatives and a proposed project. The alternatives discussion should provide decision-makers with an understanding of the environmental merits and disadvantages of various project alternatives.

The range of alternatives in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to make a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project (State CEQA Guidelines, § 15126.6, subd. (f)). Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making. When addressing feasibility, the State CEQA Guidelines state that "among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)." The State CEQA Guidelines also state that the alternatives discussion need not be presented in the same level of detail as the assessment of the proposed project. Additionally, "[a]lthough an EIR should focus on alternatives that will reduce or avoid environmental impacts, this does not prevent an EIR from also presenting alternatives that will provide greater project benefits at increased environmental cost. A discussion of such

15 CEQA Guidelines - Office of Planning and Research (ca.gov)

alternatives helps to highlight the policy trade-offs that may arise in consideration of the project and the alternatives to it." (Practice Under the California Environmental Quality Act (2d ed. Cal. CEB 2023) §15.7.).

Therefore, based on the State CEQA Guidelines, several factors need to be considered in determining the range of alternatives to be analyzed in an EIR and the level of detail of analysis that should be provided. These factors include:

- The extent to which the alternative would accomplish most of the basic objectives of the project
- The extent to which the alternative would avoid or lessen any of the identified significant adverse environmental effects of the project
- The feasibility of the alternative, considering site suitability, economic viability, availability of infrastructure, consistency with regulatory limitations, and the reasonability of the party controlling the site
- The appropriateness of the alternative in contributing to a "reasonable range" of alternatives necessary to permit a reasoned choice

The first part in the planning of the proposed Project was the development of the Rincon Phase 2 Decommissioning Feasibility Study (Feasibility Study), that was completed in July 2022. The Feasibility Study (https://slc.ca.gov/oil-and-gas/rincon-phase-2-decommissioning-feasibility-study/) provided information from technical studies and public input to inform CSLC staff's recommendations to the Commission for a proposed Project to be evaluated in compliance with the California Environmental Quality Act (CEQA) (Item 47, August 23, 2022).

Specifically, the Feasibility Study evaluated three Project scenarios (referred to in the Study as "Reefing," "Reuse," and "Removal" Alternatives) that included a number of Project components. As summarized in the Feasibility Study findings, it was concluded that the "Reuse" Alternative required the least number of tasks and would result in fewer temporary impacts associated with construction activities as compared to the other Feasibility Study Alternatives. Based on this analysis, the Feasibility Study Reuse Alternative was chosen by the Commission to be further refined into the proposed Project being evaluated in this EIR. Because the Project was selected as a result of the Feasibility Study findings, which already included an alternatives analysis, there are no further reasonable alternatives that are available for consideration that would accomplish the basic objectives of the Project and avoid or substantially lessen any significant effects.

However, several different alternatives have been included in this analysis in order to present a full range of scenarios based on public and agency input received throughout the Feasibility Study and scoping process. In some cases, these alternatives are included despite the potential for increased environmental impacts in order to provide the Commission, other responsible agencies, tribal nations, and the public with a thorough understanding of the tradeoffs of other alternatives that could be considered.

5.2 ALTERNATIVES SELECTION

Based on the results of the Feasibility Study process and findings and in conformance with Commission direction (Item 47, August 23, 2022), the proposed Project includes retention of Rincon Island and the Rincon Island causeway (causeway), but decommissioning of select facilities (buildings and paving/concrete at Rincon Island and the Onshore Pipeline Connections (OPC)). Additionally, the Project includes remediation of contaminated soils at Rincon Island and the Onshore Facility and improvement of the State Coastal Conservancy (SCC) Parcel to improve public amenities and access for recreational opportunities at the SCC Parcel and Mussel Shoals Beach and provide a potential solution to the existing shoreline erosion.

As required by the State CEQA Guidelines, this analysis includes alternatives that could avoid or substantially reduce significant effects of the proposed Project or would provide the Commission with additional information regarding other alternatives available for consideration. With this in mind, alternatives evaluated in Section 5.4 of this EIR include:

- No Project Alternative
- Reefing Alternative
- Abutment and Revetment Retention Alternative
- Partial Causeway Removal Alternative
- Offshore Disposal Alternative (Rincon Island)

Alternatives that would not reduce impacts overall or may not be feasible were considered but eliminated from further analysis, including full removal of Rincon Island (discussed in Section 5.3 below).

An environmentally superior alternative discussion is provided in Section 6.6.

5.3 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

5.3.1 Full Removal of Rincon Island

Full Removal of Rincon Island was eliminated from further consideration based on the preliminary assessment within the Project Feasibility Study (https://slc.ca.gov/oil-and-gas/rincon-phase-2-decommissioning-feasibility-study/), which confirmed Rincon Island as a unique marine habitat in this area and concluded that removing Rincon Island would be unfavorable and have greater impacts than any of the other options or Alternatives considered. Additionally, both the general public and regulatory agencies submitted comments during the Feasibility Study and Notice of Preparation regarding interest in retaining Rincon Island in support of potential future reuse, including recreational, tribal cultural, and commercial activities.

5.3.2 Rincon Island Surface Structure Removal and Foundation Replacement (Component Plan 2A from the Feasibility Study)

Component Plan 2A from the Feasibility Study was based on removal of the three remaining surface structures on Rincon Island, including their foundations. The remaining foundation footprints would be paved to match the surrounding paving. The existing island pavement would be left in place. Under Component Plan 2A, the residual hydrocarbon contamination in the soil and interstitial water would remain encapsulated under the existing pavement. This alternative would significantly lessen impacts related to waste transport and disposal but would not meet the Project objective of remediating contamination on Rincon Island.

5.4 ALTERNATIVES EVALUATED IN THIS EIR

5.4.1 No Project Alternative

5.4.1.1 Description

The State CEQA Guidelines (Section 15126.6[e][1]) requires that the EIR evaluate a “No Project” alternative. The No Project Alternative consists of no action. The Rincon Phase 2 facilities would not undergo any modifications, and there would not be any remediation of contaminated soils and interstitial/groundwater at Rincon Island or the Onshore Facility. Pipelines would not be removed from the OPC vault, and the proposed improvements to the SCC Parcel would not occur. The No Project Alternative does not meet the purpose of the Project or any of the Project objectives as further discussed below.

5.4.1.2 Impact Analysis

Aesthetics

Since the remaining facilities at Rincon Island would be left in place, no changes to existing aesthetics or the current viewshed would occur (Impacts AES-1, AES-2, AES-3) as a result of the No Project Alternative. Not removing the pipelines from the OPC would not result in any changes to aesthetics, as these facilities are subsurface. Additionally, the Onshore Facility was cleared during Phase 1 activities, so no change to aesthetics would occur if no remediation of this site was to occur. Short-term potential impacts related to the presence of construction equipment and trucking would be avoided at all of the Project sites.

Air Quality

Adverse impacts to air quality (air pollutant emissions) generated by decommissioning activities (Impacts AQ-1 and AQ-2) would be avoided.

Biological Resources

Adverse impacts to biological resources associated with decommissioning activities, including impacts to roosting and foraging coastal birds, disturbance of environmentally sensitive habitat areas (ESHA) and western snowy plover at the SCC Parcel, disturbance of nesting birds and monarch butterflies at the Onshore Facility, and temporary effects to California sea lion and harbor seal at Rincon Island (Impacts BIO-1 through BIO-6) would be avoided.

Cultural Resources

Although there are no known cultural resources within the Project site(s), there exists a potential for undiscovered resources to be found during excavations associated with decommissioning activities at the Onshore Facility. These potential adverse impacts (Impacts CR-1 through CR-3) would be avoided.

Tribal Cultural Resources

Adverse impacts to tribal cultural resources associated with decommissioning activities would be avoided, including potential impacts to previously undiscovered tribal cultural resources (Impact TCR-1) and the potential contribution to cumulative impacts to tribal cultural resources (Impact TCR-2).

Geology and Coastal Processes

Potential impacts resulting from a temporary increase in surface erosion at all Project sites (Impact GEO-1), disturbance to soils that have a moderate potential for paleontological resources at the Onshore Facility (Impact GEO-2), as well as cumulative impacts (Impact GEO-5) would be avoided by the No Project Alternative. However, added protection from coastal erosion (Impact GEO-4) at the SCC Parcel (particularly to the Rincon Island causeway entrance road) from planting of native vegetation (Option 1), placement of the cobble back berm (Option 2), or installation of riprap along the shoreline (Option 3) would also not be realized, leaving the parcel vulnerable to continued erosion and coastal processes.

Greenhouse Gas Emissions

Potentially adverse impacts to global climate change associated with greenhouse gas (GHG) emissions generated by decommissioning activities (Impacts GHG-1 and GHG-2) would be avoided.

Hazards and Hazardous Materials

Adverse impacts associated with Project-related exposure to hazardous materials encountered during decommissioning activities (Impact HAZ-1) would be avoided. The potential for discharge of fuel and lubricants used in decommissioning-related equipment and vehicles to the environment (Impact HAZ-2) would also be avoided. The contaminated soil and interstitial water on Rincon Island is currently capped and unlikely to disperse; however, the contaminated soil and groundwater at the Onshore Facility could lead to increased groundwater contamination in the future if left in place, which the Los Angeles Regional Water Quality Control Board (LARWQCB) may still require be addressed. In addition, the non-friable asbestos containing material that was identified during Phase 1 activities in the roofing materials and walls associated with the Operator’s Building and Electrical Building on Rincon Island would also not be removed. The resulting potential for discharge and related risk of hazardous materials impacts would be greater than the proposed Project. Additionally, leaving the Onshore Facility in a condition that is unacceptable for future Public Trust-consistent use does not fulfill a primary objective of the Project. Cumulative impacts (Impact HAZ-3) would also be avoided.

Hydrology and Water Quality

Water quality impacts associated with construction-related erosion and sedimentation to marine and onshore water quality (Impact HWQ-1) would be avoided. Although the contaminated soil and interstitial water on Rincon Island is currently capped and unlikely to disperse, the contaminated soil and groundwater at the Onshore Facility could migrate and lead to increased groundwater contamination in the future if left in place. The resulting potential for discharge of contaminants and related risk of water quality impacts would be greater than the proposed Project and is a significant and unavoidable impact.

Use of water during construction (Impact HWQ-2) would also be avoided. Discharge of treated contaminated groundwater to the local sewer system (Impact HWQ-3) would also not be required. Based on remaining impacts that could result from groundwater contaminated being left in place, a potential for cumulative impacts would also be significant and unavoidable.

Land Use and Planning

Temporary conflicts with State and local policies (Impacts LU-1 and LU-2) for Project-specific and cumulative impacts would be avoided. However, benefits to public access and safety associated with Ventura County Policies (5.12-Invasive Plants, Access Policies 2 and 6 – Lateral Access, Mussel Shoals Access, and Beach Erosion Policy 1) would also not be realized.

Noise

As proposed decommissioning activities would not be implemented, noise generation and related less than significant impacts from noise and vibration (Impacts N-1, N-2, and N-3) would not occur.

Recreation

As proposed decommissioning activities would not be implemented, temporary impacts associated with beach access and interference with recreational traffic on the Ventura Coastal Trail (Impacts REC-1 and REC-2) as well as cumulative impacts (Impact REC-4) would be avoided. However, the beneficial long-term improvements to the SCC Parcel regarding improved public access (Impact REC-3) (improving existing trails and bench, removing coastal hazards, and installing signage and a beach stairway) for recreational opportunities in this area would not be realized.

Transportation and Traffic

As proposed decommissioning activities would not be implemented, temporary trip generation (Impact T-1) and cumulative trip generation (Impact T-2) would be avoided.

Utilities and Service Systems

As proposed decommissioning activities would not be implemented, solid waste would not be generated, and a less than significant impact on landfill capacity (Impact US-1) and cumulative impacts to landfill capacity (Impact US-2) would be avoided.

Wildfire

Potential impacts associated with onshore decommissioning activities within an area designated as high wildfire risk (Impact WF-1) and cumulative impacts (Impact WF-2) would not occur.

5.4.2 Reefing Alternative

5.4.2.1 Description

The Reefing Alternative was originally included within the Feasibility Study completed in July 2022. As part of this Study, a screening level environmental assessment of potential impacts was conducted. These findings were updated based on additional technical studies and research performed in support of the EIR Alternatives Analysis, as further discussed below.

Under the Reefing Alternative, the remaining structures, concrete, and pavement on Rincon Island and the contaminated soil and interstitial water, including any remaining contamination in the well bay area, would be removed and replaced with clean fill to an elevation and condition consistent with use of the remaining island structure as habitat for wildlife species. Based on the results of the soil assessment activities (Appendix E1), the depth of contaminated soil stops just below the depth of interstitial water in isolated areas (ranging from approximately 11.96 feet to 14.61 feet below the top of the monitoring well casings, which corresponds to elevations that range from approximately 0.47 feet to 3.18 feet above mean sea level). The well bay conductors, surrounding perimeter rock and tetrapods, as well as the submerged portion of the Island, would be left intact.

Under the Reefing Alternative, the wharf, causeway, and abutment would be removed in their entirety after completion of the Rincon Island decommissioning activities. These facilities would be removed to return the offshore area to a more natural state. The riprap revetment that protects the abutment would be removed to allow access to the abutment for removal and then replaced.

Figure 5-1 provides a sketch of causeway abutment removal, and Figure 5-2 shows what the former abutment area would look like following the replacement of the riprap revetment.

The methods anticipated for use in decommissioning the wharf and causeway are based on the assumption that the causeway's current capacity of 65,000 pounds does not change due to storm damage, corrosion, or other means of deterioration prior to decommissioning.

Wharf removal would be conducted before the causeway is removed so that the causeway could be used to transport recovered materials to shore for recycling or disposal. Once the wharf removal has been completed, the causeway demolition would be performed using a mobile crane operating from the causeway.

The work would start at the offshore end of the causeway and work landward dismantling the causeway one bent (pier section) at a time. Working from the causeway, the wooden pile stubs from the causeway's original construction would be excavated and removed to a depth of 5 feet below the seafloor. The supporting dive crew would also operate from the causeway. All components would be recovered, loaded on trucks, and shipped to offsite recycling or disposal.

Similar to the proposed Project, the Onshore Facility would be remediated and left in a condition acceptable for future Public Trust-consistent use, the SCC Parcel would be improved under one of the three options considered, and decommissioning activities at the OPC would include removing the pipelines from the 30-inch-diameter casing north to the concrete vault, and then filling the casing with cement slurry.

Figure 5-1. Causeway Abutment Removal

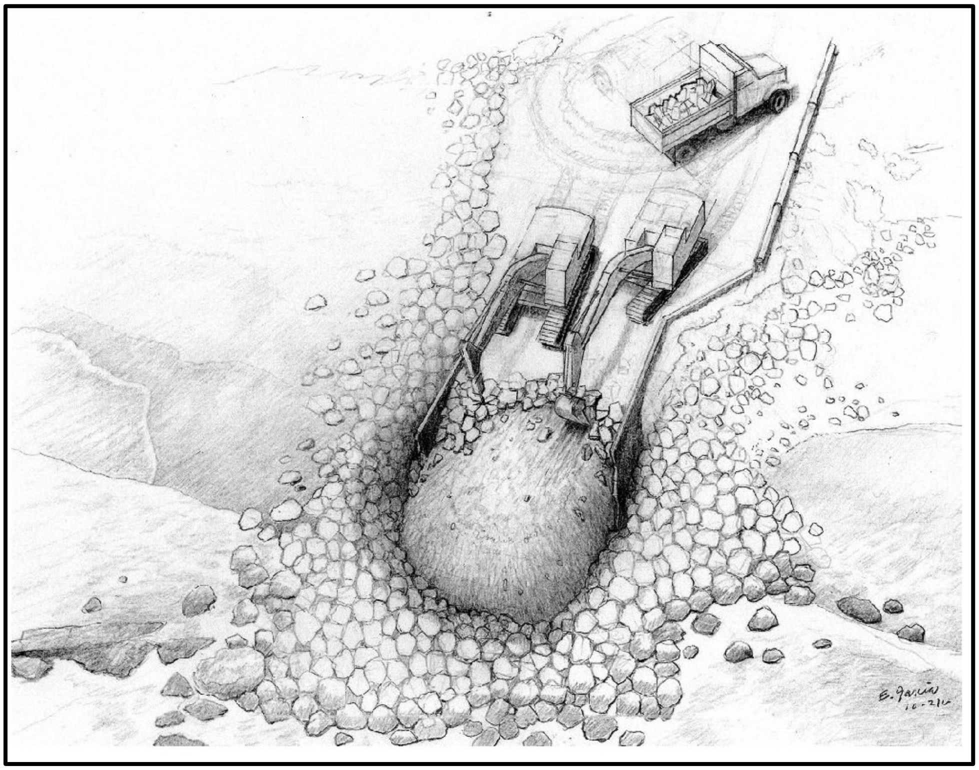
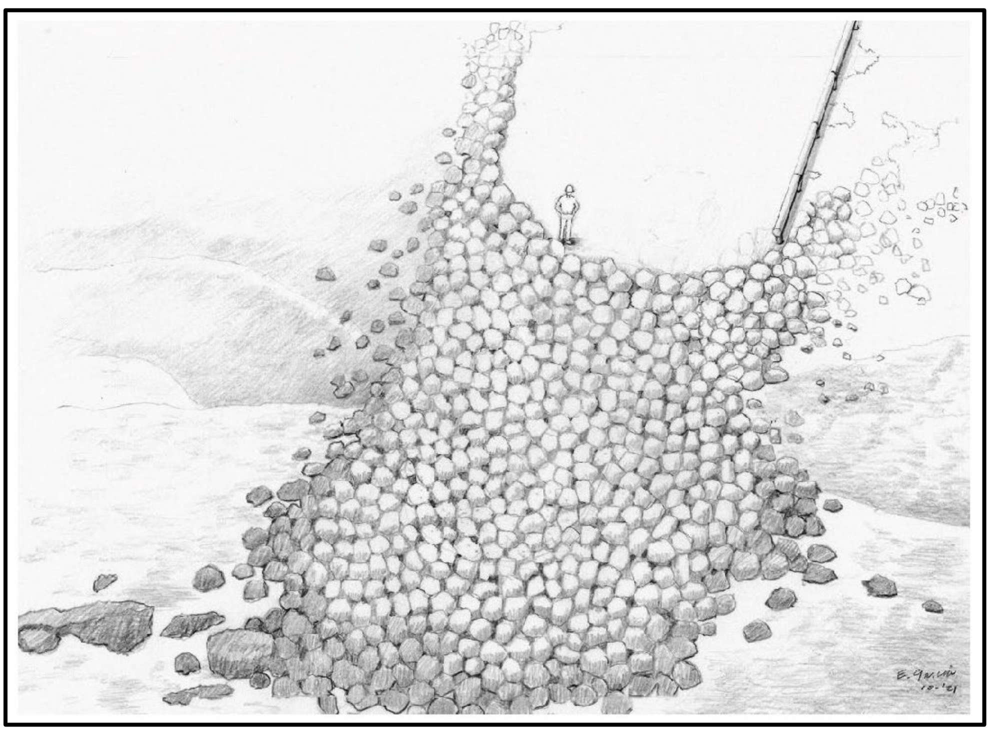


Figure 5-2. Causeway Riprap Revetment Replacement



The Reefing Alternative is included to evaluate a full range of scenarios as previously discussed, with regard to the final disposition of the causeway. By removing the causeway and associated structures, the Reefing Alternative would return the area to a natural state. The Reefing Alternative generally meets the Project objectives by retaining the biological diversity associated with Rincon Island and its surrounding marine environment, preparing Rincon Island and the Onshore Facility for new uses, including but not limited to co-management with sovereign tribal nations, consistent with the Public Trust (although the Reefing Alternative would significantly limit potential reuse options on Rincon Island), remediating contamination at Rincon Island and the Onshore Facility, decommissioning the pipelines previously used for oil and gas production and conveyance, and improving public access, including by reducing erosion conditions, on the SCC Parcel.

5.4.2.2 Impact Analysis

Aesthetics

The Reefing Alternative remediation and decommissioning activities are estimated to take approximately 3 years. Views of Rincon Island may be slightly modified from what exists now following removal and backfill of the Island's contaminated core and removal of the wharf, but the existing island profile would remain relatively consistent.

Decommissioning under the Reefing Alternative would necessitate the introduction of temporary construction equipment on the causeway for the period of time it takes to complete the removal (estimated at 306 days). Additionally, onshore construction equipment (e.g., a crane, vibratory hammer, and excavators) would be required to decommission the causeway abutment within the beach area at the rocky headlands and topsides, including the gated Rincon Island entrance adjacent to the Mussel Shoals community. The additional amount of time required to complete the Reefing Alternative would cause greater temporary impacts to the views of the community than the proposed Project. With the implementation of **MM AES-1a** through **MM AES-1c** potential impacts to public views from decommissioning activities would be less than significant.

Under the Reefing Alternative, long-term views from the shore would be permanently changed as shown in Figure 5-3 (artist's rendition looking from the southwest) with the removal of the causeway and abutment, and removal/replacement of the riprap revetment. This change would return the previous full causeway length (2,732 feet) to a natural state, where unobstructed views of the Pacific Ocean and Channel Islands would be seen, and Rincon Island would appear as an Island offshore. Although protection of the existing viewshed has been specified as the preference for some residents of the Mussel Shoals community, due to the return of the causeway area to a natural state, the change to long-term aesthetics is considered a beneficial impact as compared to the proposed Project.

Removal of the causeway would have the secondary benefit of removal of vehicular access to the Island, which would result in a permanent reduction in views of vehicles transiting through the Mussel Shoals community. With the implementation of **MM AES-1a** through **MM AES-1c** cumulative impacts to aesthetics would be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Reefing Alternative; therefore the aesthetic impacts associated with these decommissioning areas would be the same as with the proposed Project. Cumulative impacts to aesthetics would remain as less than significant with mitigation.

<u>Air Quality</u>

Decommissioning-related air pollutant emissions associated with the Reefing Alternative would be greater than the proposed Project; an additional 0.95 tons of nitrogen oxides (NO_x) and 0.09 tons of reactive organic compounds (ROC) would be generated by additional tasks (removal of the causeway, wharf, and abutment, and removal/replacement of the riprap revetment) (see Appendix I for calculations). However, the maximum 12-month period air pollutant emissions would be the same as the proposed Project since the additional tasks would not be conducted in the peak year (Year 1), but rather would be completed after the Rincon Island decommissioning activities. Air pollutant emissions associated with this Alternative would not exceed the 25 tons per year thresholds for NO_x and ROC (each, respectively) used in this EIR, and a less than significant impact would result. Additionally, **MM AQ-1** would be implemented to further reduce decommissioning-related air pollutant emissions. As such, Alternative-specific and cumulative impacts would be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative. Therefore, air quality impacts associated with these decommissioning areas would be the same as with the proposed Project.

Biological Resources

Similar to the proposed Project, the Reefing Alternative would retain Rincon Island mostly in its current state, but would require the temporary use of construction equipment at the Island to remove the contaminated soil and interstitial water and backfill with clean soil. Temporary impacts to roosting and foraging birds as well as temporary effects to ESHA would be virtually the same as the proposed Project with minor, additional disturbances during wharf, causeway, and abutment removal. Similar to the proposed Project, **MM BIO-1b and MM BIO-4** would be implemented to inform Project personnel of impacts to special status species and to ensure the protection of Western snowy plovers and other special status bird species onsite. The Island would continue to provide the biological benefit of isolated hard-substrates and topography that support localized habitats and wildlife communities.

Removal of the causeway would result in the permanent loss of marine bird roosting habitat, which would not occur with the proposed Project. Impacts to local marine bird populations would be greater than the proposed Project, but considered less than significant as Rincon Island would remain as offshore roosting habitat.

Removal of the causeway would be performed utilizing a land-based equipment spread. The physical removal of pilings would introduce temporary turbidity and affect water quality. High levels of sustained turbidity have the potential to affect filter feeding invertebrates and reduce visibility for fish and mammals. In addition, removal of the causeway and wharf pilings and submerged portions of the abutment would permanently eliminate some of the hard-substrate surface areas currently used by intertidal and subtidal communities from the shore out to the Island. The causeway pilings also provide habitat for the local prey base and refuge habitat for upper trophic levels (fish and marine mammals, specifically California sea lions and Pacific harbor seal [pinnipeds]). However, based on a recent dive survey (Appendix D2), the habitat present on the causeway pilings is less biologically diverse than the hardbottom habitat present within adjacent bedrock outcrops on the seafloor, which would remain. With respect to Impact BIO-5 regarding temporary impacts to marine mammals, removal of the wharf and causeway on the exterior of Rincon Island may disturb pinnipeds if they are hauled-out on the tetrapods or foraging in the area during demolition activities. In-water activities including piling removal with cranes and divers could cause pinnipeds, or other marine mammals in the area, to change their haul-out or foraging behavior or avoid the area during work activities. Although sea turtles are rare in the Project area, there is a low likelihood they could occur and may be temporarily displaced or impacted by in-water work. Impacts to marine mammals and sea turtles would be greater than the proposed Project, including potential impacts to species behavior, which would require additional mitigation such as a marine mammal and sea turtle mitigation and monitoring plan. With the implementation of **MM ALT-A**, impacts to biological resources would be less than significant.

MM ALT-A. Marine Mammal and Sea Turtle Mitigation and Monitoring Plan. California State Lands Commission (CSLC) or its contractor shall prepare a Marine Mammal and Sea Turtle Mitigation and Monitoring Plan (Plan). The purpose of the Plan is to ensure that no harassment of marine mammals or other marine life occurs during Project activities. The Plan, which may be a part of a National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) consultation under the Marine Mammal Protection Act, shall include:

- A description of the work activities including vessel size, activity types and locations, and proposed Project timeframes
- A risk analysis (likelihood and consequence) of noise effects to marine mammals and sea turtles based on the most recent Project workplans
- The qualifications, number, location in the Project area, and roles/authority of dedicated marine wildlife observers (MWOs). A minimum of two MWOs, approved by CSLC and NMFS staffs
- Procedures for vessel transit and activity, if vessel use is proposed in Project work plans, including:
    - The distance, speed, and direction transiting vessels shall maintain when in proximity to a marine mammal or sea turtle
    - Support vessels (i.e., barges) shall not cross directly in front of migrating whales, other threatened or endangered marine mammals, or sea turtles
    - Vessels shall not separate female whales from their calves or herd or drive whales. If a whale engages in evasive or defensive action, support vessels shall drop back until the animal moves out of the area
- Observation recording procedures and reporting requirements in the event of an observed impact to marine wildlife. Injuries or mortalities to marine wildlife shall be reported promptly to the NMFS per their reporting procedures.

  National Marine Fisheries Service
  Southwest Region Stranding Coordinator
  Long Beach, CA 90802

Phone: (562) 980-3230 or (562) 506-4315 (24-hour cell)

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Reefing Alternative; therefore, the biological impacts for decommissioning activities in these areas would be the same as with the proposed Project. Cumulative impacts would be less than significant with mitigation (**MM BIO-1** through **MM BIO-4** and **MM ALT-A**).

Cultural Resources

There are no known submerged cultural resources within the vicinity of Rincon Island and the causeway that would be affected during implementation of the Reefing Alternative, therefore impacts would remain less than significant. However, Rincon Island and the causeway were constructed in 1958, which makes the facilities more than 50 years old and a cultural resource. Due to the Island's unique development and construction; association with the significant theme of oil exploration, development, and production within the State of California, Rincon Island and the causeway have the potential to qualify as "historical resources" as defined by CEQA. Similar to the proposed Project, if determined California Register of Historical Resources (CRHR)-eligible, the removal of the Island well bay concrete deck, pavement, and contaminated soil would not result in a change to the current shape or design of Rincon Island; however, removal of the wharf, causeway, and abutment (with removal/replacement of the riprap revetment) associated with the Reefing Alternative could impact any one of the seven aspects of integrity (location, design, setting, materials, workmanship, feeling, association), which would be a significant and unavoidable impact.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, cultural resources impacts associated with these decommissioning areas would be the same as with the proposed Project.

Tribal Cultural Resources

There are no known submerged tribal cultural resources within the vicinity of Rincon Island and the causeway, therefore no impacts related to a substantial adverse change to a previously undiscovered tribal cultural resource during Project implementation would occur during Reefing Alternative construction. Additionally, the proposed Project activities for this Alternative include the removal of historic-aged structures and the removal of artificial fill soils.

Therefore, impacts to previously undiscovered tribal cultural resources are not anticipated, and no impact would result.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, tribal cultural resources impacts associated with these decommissioning areas would be the same as with the proposed Project.

Geology and Coastal Processes

Surface Erosion

Similar to the proposed Project, decommissioning activities at each Project site associated with the Reefing Alternative would have the potential to result in short term impacts to surface erosion. As such, incorporation of **MM GEO-1, MM AQ-1**, and **MM HWQ-1** would be required to mitigate the potential for surface erosion. With the implementation of **MM GEO-1, MM AQ-1**, and **MM HWQ-1**, the impact would be less than significant.

Seismic Hazards

Similar to the discussion within the proposed Project regarding geologic hazards and wave exposure, because it is being left in place, the Island will continue to be subject to the existing potential of geologic impacts from seismic shaking or tsunami, however this is a baseline condition. As noted in the Coastal Engineering Study (NV5 2021), Rincon Island was developed with an unusual shape in order to optimize wave protection. The existing seaside armor on the Island is capable of withstanding a 3.5-year storm from the Pacific Ocean, but it may sustain damages and show considerable distress (damage) from waves appreciably larger than a 3.5-year storm event. On the other hand, the historical extreme storms that occurred in the past 60 years do not appear to have endangered the Island. This indicates that Rincon Island may remain in place even when subject to rare occurrences of very large storm events. If not planned for removal as part of the Reefing Alternative, the causeway would remain vulnerable to the effects of seismic shaking, coastal storms, or tsunamis, which could result in unsafe conditions. Therefore, the removal of the wharf and causeway would avoid potential effects of geologic hazards on these structures, and there are no other structures proposed as part of the Reefing Alternative that would be subject to or exacerbate geologic hazards.

As stated by the California Supreme Court, "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users." (California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal.4th 369, 386 (CBIA)). Project activities would not exacerbate existing geological conditions or the potential for seismic ground shaking. This analysis therefore does not evaluate existing environmental risks that could affect the Project because the Project would not exacerbate them, consistent with the Court's ruling in CBIA. Therefore, no impact would result.

Coastal Processes

Under the Reefing Alternative, the riprap revetment around the causeway abutment would first be removed and stored temporarily while the concrete abutment is demolished. The riprap revetment would then be returned to armor Punta Gorda. According to Griggs (Griggs 2022; [Appendix G1]), the best approach for evaluating this alternative is to investigate how the initial construction of the abutment affected the adjacent upcoast and downcoast shoreline and beaches. The historical aerial photographs of Punta Gorda all indicate that the concrete abutment and riprap revetment that was constructed in 1959 was built out only as far as the natural bedrock outcrop (that functioned as a groin) extended seaward. Because the original construction of the abutment and the addition of the riprap in 1959 did not extend the natural bedrock outcrop any substantial distance seaward, the removal of the abutment would not significantly affect the sand trapping ability of the original natural feature. The upcoast beach and shoreline would remain essentially unchanged.

The upcoast beach and shoreline has historically built out to the point where the littoral drift of sand moves around the bedrock point and on downcoast. Approximately 300,000 cubic yards per year of littoral sand would continue to move downcoast, keeping the upcoast shoreline in an equilibrium condition, with sand eroded each winter replaced by littoral drift added each spring and summer. The riprap revetment replaced around Punta Gorda following abutment removal would make this a more substantial and erosion-resistant point than the native Pico Formation bedrock itself. As a result, the point's lifespan and trapping efficiency would actually be enhanced over the original pre-1959 condition.

With the concrete abutment removal and riprap revetment replacement, the top elevation of the final riprap would be slightly lower than the present roadway surface. This slight elevation difference would not affect the trapping efficiency of Punta Gorda, however, because the elevation and width of the upcoast beach is determined by both the seaward extent of the point, which would not change significantly (just be restacked following removal of the abutment), and the surrounding base of the riprap revetment, not the elevation of the roadway and top of the riprap revetment. The roadway elevation is at elevation 15 to16 feet above mean sea level, whereas the elevation of the back beach immediately downcoast is 8 to10 feet. According to Griggs, (Griggs 2022; [Appendix G1]), lowering the top of the riprap revetment by several feet would not affect the upcoast beach or shoreline. Further, the removal of the abutment and replacement of the existing riprap revetment on the same footprint, even at a slightly lower elevation, would have no significant effect on the downcoast shoreline, as the general footprint and seaward extent of Punta Gorda would not be changed. Neither the upcoast beach nor the downcoast beach would be affected by the removal of the underlying concrete abutment and the replacement of the riprap revetment, therefore potential impacts to coastal processes would remain less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, the geologic impacts associated with these decommissioning areas would remain the same as with the proposed Project.

Greenhouse Gas Emissions

Total GHG emissions associated with the Reefing Alternative would be greater than the proposed Project (an additional 243.7 metric tons CO_2 equivalent (CO_2E)) due to heavy equipment and vehicle emissions generated by additional tasks (decommissioning of the causeway, wharf, and abutment, and removal/replacement of the riprap revetment) (see Appendix I for calculations). However, the maximum 12-month period GHG emissions would be the same as the proposed Project since the additional tasks would not be conducted in the peak year (Year 1), but rather would be completed after the Rincon Island decommissioning activities. GHG emissions associated with this Alternative would not exceed the 10,000 metric tons per year CO_2E threshold used in Section 4.2.4 and would be less than significant. Since the Project contribution would be temporary and less than significance thresholds, cumulative impacts would also be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, generation of GHG emissions would be the same as with the proposed Project.

Hazards and Hazardous Materials

The Reefing Alternative would have similar impacts on Rincon Island as the proposed Project. Following removal of the remaining buildings (confirmed to contain asbestos contamination), as well as the contaminated sand, gravel, and interstitial water from the Island core and any residual contamination in the well bay area (to be determined), no hazardous materials would remain. Mitigation measures **MM HAZ-1a** through **MM HAZ-1e**, as well as **MM HWQ-1**, would be implemented to reduce potential impacts from hazards and hazardous materials during or following decommissioning activities. If selected, the public facilities retention option would allow the existing septic and wastewater system to remain in place to support future use; however this option would need to be authorized by an inspection from Ventura County. No hazardous materials are associated with the existing wharf.

During construction, there remains a potential for a release of hazardous materials from Project equipment and machinery. However, removal of the causeway for the Reefing Alternative would result in minimal risk since the petroleum hydrocarbon-containing pipelines were removed from the causeway during Phase 1. Removal of the wooden deck along the causeway has a low potential to release wood preservatives to the ocean if the deck materials are damaged during removal. The wood decking materials and support pilings would be sampled and chemically analyzed to identify the potential presence of regulated materials prior to removal. The addition of equipment to perform causeway removal would result in an increase in the risk of spills due to the presence of fuels necessary to run the equipment. **MM HAZ-1c** and **MM HAZ-1d** would be implemented to reduce the potential risks if a spill occurred. No hazardous materials are associated with the removal of the concrete abutment or the removal/replacement of the riprap revetment other than the short-term presence of construction equipment. With the implementation of **MM HAZ-1c** and **MM HAZ-1d**, the impact would be less than significant. Cumulative impacts associated with hazardous materials would be the same as the proposed Project.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, impacts related to hazards and hazardous materials associated with these decommissioning areas would remain the same as with the proposed Project.

Hydrology and Water Quality

Hydrology and water quality impacts under the Reefing Alternative would be similar to the proposed Project. However, under this Alternative the wharf, causeway, and abutment would be removed in their entirety. During decommissioning activities, removal of the causeway would cause minor, temporary turbidity impacts to the ocean water during removal of pilings. In addition, removal of the riprap revetment would also result in minor increases in turbidity. These impacts are anticipated to be temporary and could be addressed through the preparation and implementation of a Water Quality Monitoring Plan as part of the Project Workplan that would include measures for monitoring water quality parameters (e.g., pH, temperature, dissolved oxygen, turbidity, and visual assessment for floating particulates), contingency measures for mitigating or reducing water quality impacts, and reporting of findings regularly to the appropriate regulatory agencies. Additionally, **MM HWQ-1** would be implemented to reduce potential impacts from construction-related erosion and sedimentation. With the implementation of **MM HWQ-1**, the impact would be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, impacts related to water quality associated with these decommissioning areas would be the same as with the proposed Project.

Land Use and Planning

Temporary conflicts with State and local policies during implementation of the Reefing Alternative would be similar to the proposed Project, and less than significant with mitigation, as identified in Table 4.10-1. As indicated above, removal of the causeway would remain consistent with County policies regarding aesthetics and coastal access. Project objectives including preparation of the Project sites for potential future uses would remain the same as with the proposed Project. However, the Reefing Alternative would remove the causeway, which would eliminate vehicle access to the Island and limit potential reuse options which is not a significant land use impact but would be a future land use consideration.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, impacts related to land use associated with these decommissioning areas would be the same as with the proposed Project.

Noise

Removal of the wharf, causeway, and abutment and removal/replacement of the riprap revetment would generate temporary noise and vibration from heavy equipment and vehicles during decommissioning activities. The causeway removal activities would be located at least several hundred feet from potentially noise-sensitive land uses (residences); however, noise associated with removal of the causeway and abutment, and staging, would occur directly adjacent to residences to the west of the causeway entrance. The estimated noise level at the nearest residence associated with abutment removal is 73.5 Dba Leq (Appendix J). Even though this increase in noise levels during the day would be perceptible to adjacent residences, the County of Ventura thresholds do not consider nearby residences as noise-sensitive receptors if construction occurs during daytime hours. Therefore, although this Alternative includes two additional activities in proximity to residences (abutment and causeway removal), significant noise impacts would not occur. Additionally, CSLC will continue to provide notifications to residents within the Mussel Shoals community that would include information about the proposed Project and hours of operation so that they would be aware of when construction activities and noise are anticipated. **MM REC-1** would limit idling of engines that are queuing in order to minimize additional noise. With the implementation of **MM REC-1**, the impact would be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, noise impacts associated with these decommissioning areas would be the same as with the proposed Project.

Recreation

Removal of the causeway would limit any potential reuse of Rincon Island that could support future recreational uses. This is not a significant impact to recreation since Rincon Island is not currently utilized for this purpose, and due to the abundant use of the Island by roosting and foraging birds, the Island may not be suitable for active recreational use. Therefore, no impact would occur.

Similar to the proposed Project, removal of the wharf and causeway and removal/replacement of the riprap revetment at the base of the causeway landing would require construction vehicles and equipment to access the causeway and beach revetment work areas via U.S. Highway 101 and Old Pacific Coast Highway (PCH) through Mussel Shoals. During this time, activities would require access to the Mussel Shoals area and would increase vehicle traffic near the existing Coastal Trail, temporarily blocking bicycle and pedestrian traffic while construction traffic and trucking is occurring. In addition, removal of the riprap revetment would require construction crews and equipment to access the beach below the causeway. Activities on the beach would temporarily displace pedestrian traffic along this area. However, with the implementation of **MM REC-1**, the impact would be less than significant.

As discussed above under Biological Resources, removal of the causeway may reduce the availability of fishing opportunities in the area for recreational fishers, as it would permanently reduce the hard-substrate habitat on the causeway piles that support coastal and pelagic fish species and refuge habitat for upper trophic levels (fish and marine mammals). However, a significant reduction in fishing opportunities is not anticipated, as fishermen would have access to areas of existing rocky outcrops that provide good quality hard-substrate habitat along the former causeway alignment.

No discernible changes to the surf break that currently occurs at Little Rincon/Mussel Shoals are anticipated following removal of the causeway. As indicated within the surf study completed on behalf of the Project (Appendix H), the impact of causeway removal on the existing surf break would be insignificant because the size of the causeway piles is negligible compared to the wavelength and scale of the nearshore area. In other words, the diameter of the causeway piles is too small and the distance between the piles is too great for the pilings to affect the surf break. Therefore, discernible changes to the surf break that currently occurs at Little Rincon/Mussel Shoals are not anticipated following removal of the causeway. In addition, the surf break, Little Rincon, occasionally breaks through the causeway pilings, which presents a potential hazard to surfers who attempt to surf through or “shoot” the causeway. Removal of the causeway would eliminate the potential hazard of collision between a surfer and a pier piling. A less than significant impact to recreation would result.

Cumulative recreational impacts would be mitigated through implementation of **MM REC-1**. With implementation of **MM REC-1**, a less than significant cumulative impact would result.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, impacts and potential benefits related to recreation associated with these decommissioning areas would be the same as with the proposed Project.

Transportation and Traffic

The retention of Rincon Island, but removal of the wharf and causeway, would necessitate construction equipment access to the Island as well as onshore. Access to the causeway (as well as for improvements to the SCC Parcel, removal of the abutment, and removal/replacement of the riprap revetment) would require access through the Mussel Shoals community via Old PCH to Ocean Avenue; equipment would be staged within the locked and gated causeway entrance for the duration of construction activities. Decommissioning activities would generate vehicle trips and vehicle miles traveled and cumulative impacts to transportation and traffic during construction.

As discussed in Section 4.13.4, transportation analysis under CEQA is focused on passenger vehicles and vehicle miles traveled (VMT) per CEQA Guidelines Section 15064.3, subdivision(b). The Reefing Alternative would result in the same number of peak day passenger vehicle trips as the proposed Project. Therefore, temporary impacts associated with the Reefing Alternative would be less than the 110 trips per day screening threshold and less than significant.

CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks), not heavy-duty trucks (Governor's Office of Planning and Research 2018b); therefore, VMT generated by Project-related heavy-duty truck trips are excluded from the analysis. Regardless, consistent with the proposed Project, a Recreational Site Access and Traffic Management Plan (**MM REC-1**) would be developed and implemented to coordinate truck traffic. Additionally, CSLC would provide notices to local residents prior to Project implementation regarding Project timing and hours. As such, impacts would be less than significant.

Following removal of the causeway and abutment, the number of vehicle trips and vehicle miles travelled (VMT) would be slightly reduced since causeway maintenance-related vehicle trips would be eliminated.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Reefing Alternative; therefore, potential transportation and traffic impacts associated with these decommissioning areas would be the same as with the proposed Project.

Utilities and Service Systems

Implementation of the Reefing Alternative would require removal of the causeway and abutment, which would generate a significant volume of waste as compared to the proposed Project. The causeway includes approximately 30 concrete and wood pilings (approximately 2,084 cubic yards) and approximately 4,611 square feet (2,840 cubic yards) of wooden decking material. Additionally, the wharf includes approximately 342 cubic yards of wooden decking material and 370 cubic yards of wooden pilings, as well as a small hoist and metal scaffolding and ladders that would need to be removed. Metal from the wharf structure would be recycled. Wood decking materials and support pilings would be sampled and chemically analyzed to identify the potential presence of regulated materials prior to removal. If the wood has been treated, it would not be recyclable. This additional waste material would have the potential to increase the volume of waste material going to local waste receiving facilities.

This additional wooden material would likely be taken to Waste Management for disposal. Concrete and steel materials would be taken to State Ready Mix for recycling. Waste Management has the capacity to receive up to 3,000 tons per day of refuse. State Ready Mix has indicated that they have the capacity to handle the required volume of Project recycling. The wooden deck and pilings from the causeway and wharf would contribute approximately 3,803 tons of waste (using an average weight of wood as 50 pounds per cubic foot). Although much greater than the proposed Project, this is not anticipated to create a significant impact to the daily capacity of Waste Management, as the waste materials would be collected as the causeway and wharf are dismantled over a period of approximately 306 days, or an average of 12 tons per day; which is only a small percentage of the 3,000 ton daily capacity for this facility. This would also have the potential to contribute to cumulative impacts to utilities and service systems, but would be a less than significant impact.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Reefing Alternative; therefore, potential impacts to utilities and service systems associated with these decommissioning areas would be the same as with the proposed Project.

<u>Wildfire</u>

Similar to the proposed Project, the Reefing Alternative would require work activities at the causeway entrance, which is included in an area designated by CAL FIRE as a very high fire hazard severity zone. However, the causeway entrance is an asphalt paved open space area bounded by fencing and riprap that is free of vegetation. All former oil and gas piping infrastructure has been removed from the causeway entrance. As such, use of the causeway entrance for removal of the wharf, causeway, and abutment would not contribute to an increase in fire risk. Further, **MM WF-1a** and **MM WF-1b** would be implemented to provide adequate planning and notifications for work in areas designated as a very high wildfire risk. With the implementation of **MM WF-1a** and **MM WF-1b**, the impact would be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Reefing Alternative; therefore, potential impacts to wildfire associated with these decommissioning areas would be the same as with the proposed Project.

5.4.3 Abutment and Revetment Retention Alternative

5.4.3.1 Description

Under the Abutment and Revetment Retention Alternative, the remaining structures and pavement on Rincon Island, and the contaminated soil and interstitial water, including any remaining contamination in the well bay area, would be removed and replaced with clean fill. The well bay conductors, surrounding perimeter rock and tetrapods, as well as the submerged Island, would be left intact. The Island wharf and the abutment and protective riprap revetment at the landward end of the causeway would remain untouched, but the causeway would be completely removed, along with associated pilings, following completion of the Island decommissioning activities. The causeway would be removed to return the offshore area to a more natural state, but would leave the wharf on Rincon Island intact for potential future boating access.

Similar to the other Alternatives, the causeway demolition would be performed using a mobile crane operating from the causeway. The work would start at the offshore end of the causeway and work landward dismantling the causeway one section at a time. Working from the causeway, the wooden pile stubs from the causeway's original construction would also be excavated and removed to a depth of 5 feet below the seafloor. The supporting dive crew would also operate from the causeway. All components would be recovered, loaded on trucks, and shipped to offsite recycling or disposal.

The Onshore Facility would be remediated and left in a condition acceptable for future public use, the SCC Parcel would be improved under one of the three options considered, and decommissioning activities at the OPC would include removing the pipelines from the 30-inch-diameter casing north to the concrete vault, and then filling the casing with cement slurry.

This Alternative is similar to the Reefing Alternative and would return the area to a more natural state, but does not include removal of the wharf or abutment or reconfiguration of the riprap revetment. The Abutment and Revetment Retention Alternative generally meets the Project objectives, as this Alternative would allow for an opportunity for future use of the remaining abutment area, consistent with the Public Trust, but would limit potential reuse options on Rincon Island due to the removal of the causeway. Additionally, this Alternative meets all of the other Project objectives outlined in Section 1.2.2.

5.4.3.2 Impact Analysis

<u>Aesthetics</u>

The offshore Project site can be seen from a number of public viewpoints, including Mussel Shoals Beach, U.S. Highway 101, and PCH (eligible scenic highway), and the bike path located along the southbound shoulder of U.S. Highway 101 near the Mussel Shoals community. Decommissioning under the Abutment and Revetment Retention Alternative for removal of the causeway would necessitate the introduction of temporary construction equipment for the period of time it takes to complete the removal (estimated at approximately 251 days). The additional amount of time required to complete the Abutment and Revetment Retention Alternative would cause greater temporary impacts to the views of the community than the proposed Project. With the implementation of **MM AES-1a** through **MM AES-1c** potential impacts to public views from decommissioning activities would be less than significant.

However, under the Abutment and Revetment Retention Alternative, the existing views from these areas would be permanently changed as shown in Figure 5-3 (artist's rendition looking from the southwest). This change would return the previous full causeway length (2,732 feet) to a natural state, where unobstructed views of the Pacific Ocean and Channel Islands could be seen.

This change would allow Rincon Island to appear as an Island offshore. The existing wharf, causeway abutment, and riprap revetment would remain in place, although fencing associated with utilization of the causeway for access to Rincon Island would be removed, leaving just the asphalted pad. Although some local residents have expressed a preference for the existing viewshed to remain unchanged, this long-term impact to aesthetics is considered a beneficial impact as compared to the proposed Project.

Removal of the causeway would have the secondary benefit of removal of vehicular access to the Island, which would result in a permanent reduction in views of vehicles transiting through the Mussel Shoals community. With the implementation of **MM AES-1a** through **MM AES-1c** impacts to aesthetics would be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Abutment and Revetment Retention Alternative; therefore, aesthetic impacts associated with these decommissioning areas would be the same as with the proposed Project.

Figure 5-3. Abutment and Revetment Retention Alternative Concept (Including Removal of Causeway)

Air Quality

Decommissioning-related air pollutant emissions associated with the Abutment and Revetment Retention Alternative would be greater than the proposed Project; an additional 0.80 tons of NO_x and 0.07 tons of ROC would be generated by decommissioning the causeway (see Appendix I for calculations). However, the maximum 12-month period air pollutant emissions would be the same as the proposed Project since this additional task would not be conducted in the peak year (Year 1), but rather after Island decommissioning activities are complete. Air pollutant emissions associated with this Alternative would not exceed the 25 tons per year NO_x and ROC thresholds (each, respectively) used in this EIR, and a less than significant impact would result. Additionally, **MM AQ-1** would be implemented to further reduce decommissioning-related air pollutant emissions. As such, Alternative-specific and cumulative impacts are less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative. Therefore, air quality impacts associated with these decommissioning areas would be the same as with the proposed Project.

Biological Resources

Similar to the proposed Project, this alternative would retain Rincon Island mostly in its current state, but would require the temporary use of construction equipment at the Island to remove the contaminated soil and backfill with clean soil. Temporary impacts to roosting and foraging birds would be virtually the same as the proposed Project with minor additional construction disturbances during causeway removal. Similar to the proposed Project, **MM BIO-1b** and **MM BIO-4** would be implemented to inform Project personnel of potential impacts to special status species and ensure the protection of bird species onsite. The Island would continue to provide the biological benefit of isolated hard-substrates and topography that support localized habitats and wildlife communities.

Removal of the causeway would be performed utilizing a land-based equipment spread. The physical removal of pilings would introduce temporary turbidity and affect water quality. High levels of sustained turbidity have the potential to affect filter feeding invertebrates and reduce visibility for fish and mammals. In addition, similar to the Reefing Alternative, removal of the causeway pilings would permanently eliminate the hard-substrate surface areas currently used by intertidal and subtidal communities from the shore out to the Island. However, based on a recent dive survey (Appendix D2), there is better quality hardbottom habitat present within adjacent hard substrate bedrock outcrops on the seafloor and below the abutment that would remain available for use by intertidal and subtidal communities. Regardless, this loss of habitat on the causeway pilings would be greater compared to the proposed Project. Removal of the causeway would also result in the permanent loss of marine bird roosting habitat, which would not occur with the proposed Project. Impacts to local marine bird populations would be greater than the proposed Project, but considered less than significant as Rincon Island would remain as offshore roosting habitat.

With respect to temporary impacts to marine mammals and turtles, removal of the causeway on the exterior of Rincon Island may disturb pinnipeds if they are hauled-out on the tetrapods or foraging in the area during demolition activities. In-water activities including piling removal with cranes and divers could cause pinnipeds to change their haul-out or foraging behavior or avoid the area during work activities. Although sea turtles are rare in the Project area, there is a low likelihood they could occur and may be temporarily displaced or impacted by in-water work. Impacts to marine mammals and sea turtles would be greater than the proposed Project, including potential impacts to species behavior, which would require additional mitigation such as marine mammal and sea turtle mitigation and monitoring plan. With the implementation of **MM ALT-A** (full text included above), impacts to marine mammals and sea turtles would be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Abutment and Revetment Retention Alternative; therefore, the biological impacts for decommissioning activities associated with these areas would be the same as with the proposed Project.

Cultural Resources

There are no known submerged cultural resources within the vicinity of Rincon Island and the causeway that would be affected during implementation of the Abutment and Revetment Retention Alternative, therefore impacts would remain less than significant. However, Rincon Island and the causeway were constructed in 1958, which makes the facilities more than 50 years old and a cultural resource. Due to the Island's unique development and construction, association with the significant theme of oil exploration, development, and production within the State of California, Rincon Island and the causeway have the potential to qualify as "historical resources" as defined by CEQA. Similar to the proposed Project, if determined CRHR-eligible, removal of the causeway could impact any one of the seven aspects of integrity (location, design, setting, materials, workmanship, feeling, association), which would be a significant and unavoidable impact.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, the cultural resources impacts associated with these decommissioning areas would be the same as with the proposed Project.

Tribal Cultural Resources

There are no known submerged tribal cultural resources within the vicinity of Rincon Island and the causeway therefore no impacts related a substantial adverse change to a previously undiscovered tribal cultural resource during Project implementation would occur during causeway removal. The proposed Project activities for this Alternative include the removal of historic-aged structures and the removal of artificial fill soils. Therefore, impacts to previously undiscovered tribal cultural resources are not anticipated, and no impact would result.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore the tribal cultural resources impacts associated with these decommissioning areas would be the same as with the proposed Project.

Geology and Coastal Processes

Surface Erosion

Similar to the proposed Project, decommissioning activities at each Project site associated with the Abutment and Retention Alternative would have the potential to result in short term impacts to surface erosion (Impact GEO-1). As such, incorporation of **MM GEO-1, MM AQ-1**, and **MM HWQ-1** would be required to mitigate the potential for surface erosion. With implementation of **MM GEO-1, MM AQ-1**, and **MM HWQ-1**, the impact would be less than significant.

Seismic Hazards

Similar to the discussion of the proposed Project regarding geologic hazards and wave exposure, potential geologic impacts resulting from retention of Rincon

Island would be similar to the proposed Project and is a baseline condition. If not planned for removal as part of this alternative, the causeway would also remain vulnerable to the effects of seismic shaking, coastal storms, or tsunamis, which could result in unsafe conditions. There are no structures currently proposed as part of the Abutment and Revetment Retention Alternative that would be subject to or exacerbate geologic hazards.

As stated by the California Supreme Court, "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users." (California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal.4th 369, 386 (CBIA)). Project activities would not exacerbate existing geological conditions or the potential for seismic ground shaking. This analysis therefore does not evaluate existing environmental risks that could affect the Project because the Project would not exacerbate them, consistent with the Court's ruling in CBIA. Therefore, no impact would result.

Coastal Processes

Under the Abutment and Revetment Retention Alternative, the causeway would be removed. According to Griggs (Griggs 2022; [Appendix G1]), study of the many pre- and post-installation images indicate no significant or systematic change in the long sandy beach upcoast (west) of the causeway or abutment following installation of the Island and causeway, other than the narrowing of the first 1,000 feet of beach west of the abutment due to the placement of homes and riprap on the back beach and dunes.

Because the dominant waves along the Rincon coast approach from the west (NV5 2021) and move eastward down the Santa Barbara Channel (SBC), and the causeway is downcoast from where the waves break on the sandy beach, the causeway has no impact on wave action at this location. Waves are the major driver of nearshore beach processes, whether seasonal differences in wave climate (height, period, and steepness) that produce changes in the beach profile, or longshore transport of sand driven by the angle that waves approach and break on the shoreline. Essentially all of the waves breaking on the sandy shoreline upcoast or west of Punta Gorda are completely unaffected by the causeway, which is downcoast. Removal of the causeway would therefore have no significant effect on the shoreline. The upcoast beach and shoreline would remain essentially unchanged (Griggs 2022). A less than significant impact would result.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative, therefore the geologic impacts would be the same for these areas as with the proposed Project.

<u>Greenhouse Gas Emissions</u>

Total GHG emissions associated with the Abutment and Revetment Retention Alternative would be greater than the proposed Project; an additional 198.1 metric tons CO_2E would be generated by decommissioning of the causeway (see Appendix I for calculations). However, the maximum 12-month period GHG emissions would be the same as the proposed Project since this additional task would not be conducted in the peak year (Year 1), but rather after Rincon Island decommissioning activities are complete. GHG emissions associated with this Alternative would not exceed the 10,000 metric tons per year CO_2E threshold used in section 4.2.4 and would be less than significant. Since the Project contribution would be temporary and less than significance thresholds, cumulative impacts would also be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative. Therefore, GHG emissions associated with these decommissioning areas would be the same as with the proposed Project.

<u>Hazards and Hazardous Materials</u>

The Abutment and Revetment Retention Alternative would have similar impacts on Rincon Island as the proposed Project. Mitigation measures **MM HAZ-1a** through **MM HAZ-1d**, as well as **MM HWQ-1**, would be implemented to reduce potential impacts from hazards and hazardous materials during or following decommissioning activities.

During construction, there remains a potential for the release of hazardous materials from Project equipment and machinery. However, removal of the causeway for the Abutment and Revetment Retention Alternative would result in minimal risk since the petroleum hydrocarbon-containing pipelines were removed from the causeway during Phase 1. Removal of the wooden deck along the causeway has a low potential to release wood preservatives to the ocean if the deck materials are damaged during removal. The wood decking materials and support pilings would be sampled and chemically analyzed to identify the potential presence of regulated materials prior to removal. However, the addition of equipment to perform causeway removal would result in an increase in the risk of spills due to the presence of fuels necessary to run the equipment. **MM HAZ-1c** and **MM HAZ-1d** would be implemented to reduce the potential risks if a spill occurred. With the implementation of **MM HAZ-1c** and **MM HAZ-1d**, the impact would be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, impacts related to hazards and hazardous materials associated with these decommissioning areas would be the same as with the proposed Project.

Hydrology and Water Quality

Hydrology and water quality impacts under the Abutment and Revetment Retention Alternative would be similar to the proposed Project. However, under this Alternative the causeway would be removed. Removal of the causeway would cause minor turbidity impacts to the ocean water during removal of pilings. These impacts are anticipated to be temporary and could be addressed through the preparation and implementation of a Water Quality Monitoring Plan as part of the Project Workplan that would include measures for monitoring water quality parameters (e.g., pH, temperature, dissolved oxygen, turbidity, and visual assessment for floating particulates), contingency measures for mitigating or reducing water quality impacts, and reporting of findings regularly to the appropriate regulatory agencies. Additionally, **MM HWQ-1** would be implemented to reduce potential impacts from construction-related erosion and sedimentation. With the implementation of **MM HWQ-1**, the impact would be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, impacts related to water quality associated with these decommissioning areas would be the same as with the proposed Project.

Land Use and Planning

Temporary conflicts with State and local policies during implementation of the Abutment and Revetment Retention Alternative would be similar to the proposed Project and other Alternatives considered; and less than significant with mitigation, as identified in Table 4.10-1. As indicated above, removal of the causeway would remain consistent with County policies regarding aesthetics and coastal access.

The Abutment and Revetment Retention Alternative would be consistent with Project objectives including preparation of the Project sites for potential future uses; however, removal of the causeway would eliminate vehicle access to the Island and limit potential reuse options, which is not a significant land use impact but would be a future land use consideration.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, impacts related to land use associated with these decommissioning sites would be the same as with the proposed Project.

Noise

Removal of the causeway would generate noise and vibration from heavy equipment and vehicles during decommissioning activities. The causeway removal activities would be located at least several hundred feet from potentially noise-sensitive land uses (residences); however, noise associated with removal of the causeway and staging would occur directly adjacent to residences to the west of the causeway entrance. The estimated noise level at the nearest residence associated with causeway removal is 68.5 dBA Leq (Appendix J). Even though this increase in noise levels during the day would be perceptible to adjacent residences, the County of Ventura thresholds do not consider nearby residences as noise-sensitive receptors if construction occurs during daytime hours. Therefore, although this Alternative includes an additional activity (causeway removal) in proximity to residences, significant noise impacts would not occur. Additionally, CSLC will continue to provide notifications to residents within the Mussel Shoals community that would include information about the proposed Project and hours of operation so that they would be aware of when construction activities and noise are anticipated. **MM REC-1** would limit idling of engines that are queuing in order to minimize additional noise. With the implementation of **MM REC-1**, the impact would be less than significant. Cumulative impacts would also be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, noise impacts associated with these decommissioning areas would be the same as with the proposed Project.

Recreation

Removal of the causeway would limit potential reuse options of Rincon Island for recreation, which is not a significant impact to recreation since Rincon Island is not currently utilized for this purpose, and due to the abundant use of the Island by roosting and foraging birds may not be suitable for active recreational use. Therefore, no impact would occur.

Similar to the proposed Project, removal of the causeway would require construction vehicles and equipment to access the causeway work areas via U.S. Highway 101 and Old PCH through Mussel Shoals. During this time, activities may impact access to the North Coast Coastal Trail by increasing vehicle traffic near the trail, temporarily blocking bicycle and pedestrian traffic, or temporarily re-routing the trail users to a safer part of the road while construction traffic and trucking is occurring. As such, **MM REC-1** would be implemented to reduce potential impacts.

As discussed above under Biological Resources, removal of the causeway may reduce the availability of fishing opportunities in the area for recreational fishermen, as it would permanently reduce the hard-substrate habitat on the causeway piles that support coastal and pelagic fish species and refuge habitat for upper trophic levels (fish and marine mammals). However, a significant reduction in fishing opportunities is not anticipated, as fishermen would have access to areas of existing rocky outcrops that provide good quality hard-substrate habitat along the former causeway alignment.

No discernible changes to the surf break that currently occurs at Little Rincon/Mussel Shoals are anticipated following removal of the causeway. As indicated within the surf study completed on behalf of the Project (Appendix H), the impact of causeway removal on nearshore processes would be insignificant because the size of the causeway piles is negligible compared to the wavelength and scale of the nearshore area. In other words, the diameter of the causeway piles is too small and the spread between the piles is too great for the pilings to affect the surf break. Therefore, substantial changes to the surf break that currently occurs at Little Rincon/Mussel Shoals are not anticipated following removal of the causeway. In addition, the surf break, Little Rincon, occasionally breaks through the causeway pilings, which present a potential hazard to surfers who attempt to surf through or "shoot" the causeway. Removal of the causeway would eliminate the potential hazard of collision between a surfer and a pier piling. A less than significant impact to recreation would result.

Retention of the causeway abutment and revetment would allow for the opportunity for recreational use (e.g., either through a designated viewpoint or placement of picnic tables, educational signage, or benches) by the public of this area, consistent with the Public Trust. Retention of this area is considered a benefit to future recreational opportunities.

Cumulative recreational impacts would be mitigated through implementation of **MM REC-1**. With implementation of **MM REC-1**, a less than significant impact would result.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, impacts or potential benefits related to recreation associated with these decommissioning areas would be the same as with the proposed Project.

Transportation and Traffic

Removal of the causeway would necessitate construction equipment access to the Island as well as onshore. Access to the causeway (as well as for improvements to the SCC Parcel) would require access through the Mussel Shoals community via Old PCH to Ocean Avenue; equipment would be staged within the locked and gated causeway entrance for the duration of construction activities. Decommissioning activities would generate vehicle trips and vehicle miles traveled during construction.

As discussed in Section 4.13.4, transportation analysis under CEQA is focused on passenger vehicles and VMT per CEQA Guidelines Section 15064.3, subdivision(b). The Abutment and Revetment Retention Alternative would result in the same number of peak day passenger vehicle trips as the proposed Project. Therefore, temporary impacts associated with this Alternative would be less than the 110 trips per day screening threshold and less than significant.

CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks), not heavy-duty trucks (Governor’s Office of Planning and Research 2018b); therefore, VMT generated by Project-related heavy-duty truck trips are excluded from the analysis. Regardless, consistent with the proposed Project, a Recreational Site Access and Traffic Management Plan (**MM REC-1**) would be developed and implemented to coordinate truck traffic. Additionally, CSLC would provide notices to local residents prior to Project implementation regarding Project timing and hours. A less than significant impact would result.

Following removal of the causeway, the number of vehicle trips and VMT would be slightly reduced since maintenance-related vehicle trips for the causeway would be eliminated.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Abutment and Revetment Retention Alternative; therefore, potential transportation and traffic impacts associated with these decommissioning areas would be the same as with the proposed Project.

Utilities and Service Systems

Implementation of the Abutment and Revetment Retention Alternative would require removal of the causeway, which would generate a significant volume of waste as compared to the proposed Project. The causeway includes approximately 30 concrete and wood pilings and approximately 4,611 square feet (2,840 cubic yards) of wooden decking material. Causeway pilings include another 2,084 cubic yards of material. Wood decking materials and support pilings would be sampled and chemically analyzed to identify the potential presence of regulated materials prior to removal. If the wood has been treated, it would not be recyclable. This additional waste material would have the potential to increase the volume of waste material going to local waste receiving facilities.

This additional material would likely be taken to Waste Management for disposal. Waste Management has the capacity to receive up to 3,000 tons per day of refuse. The additional wooden deck material from the causeway would contribute approximately 3,323 tons of waste (using an average weight of wood as 50 pounds per cubic foot). Although much greater than the proposed Project, this is not anticipated to create a significant impact to the daily capacity of Waste Management, as the waste materials would be collected as the causeway is dismantled over a period of approximately 251 days, or an average of 10 tons per day, which is only a small percentage of the 3,000 ton daily capacity for this facility. This would also have the potential to contribute to cumulative impacts to utilities and service systems, but would be a less than significant impact.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Abutment and Revetment Retention Alternative; therefore, potential impacts to utilities and service systems associated with these decommissioning areas would be the same as with the proposed Project.

Wildfire

Similar to the proposed Project, the Abutment and Revetment Retention Alternative would require work activities at the causeway entrance, which is included in an area designated by CAL FIRE as a very high fire hazard severity zone. However, the causeway entrance is an asphalt paved open space area bounded by fencing and riprap that is free of vegetation. Any former oil and gas piping infrastructure has been removed from the causeway entrance. As such, use of the causeway entrance for removal of the causeway would not contribute to an increase in fire risk. Further, **MM WF-1a** and **MM WF-1b** would be implemented to provide adequate planning and notifications for work in areas designated as a very high wildfire risk. With the implementation of **MM WF-1a** and **MM WF-1b**, the impact would be less than significant. Cumulative impacts would remain the same as the proposed Project and are less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Abutment and Revetment Retention Alternative; therefore, potential impacts to wildfire associated with these decommissioning areas would be the same as with the proposed Project.

5.4.4 Partial Causeway Removal Alternative

5.4.4.1 Description

Under the Partial Causeway Removal Alternative, the remaining structures and pavement on Rincon Island, and the contaminated soil and interstitial water, including any remaining contamination in the well bay area, would be removed and replaced with clean fill (based on the results of the soil assessment activities, the depth of contaminated soil stops just below the depth of interstitial water in isolated areas). The well bay conductors, surrounding perimeter rock and tetrapods, as well as the submerged Island, would be left intact. The Island wharf, abutment, and riprap revetment would remain untouched, but 1,892 feet of the causeway from the Island to shore would be removed, along with associated pilings to 5 feet below the seafloor, after the remediation of the Island soil and interstitial water. The remaining causeway would be reconfigured to provide a stable and safe “pier” structure extending from shore, but no longer connected to the island. Removal of a portion of the causeway would return a substantial offshore area to a more natural state, and also create a recreational facility for public use.

Similar to the Reefing Alternative, partial causeway removal would be performed using a mobile crane operating from the causeway. The work would start at the offshore end of the causeway and work landward dismantling the causeway and removing its pilings one section at a time to the desired length. Working from the causeway, the wooden pile stubs from the causeway's original construction would also be excavated and removed to a depth of 5-feet below the seafloor. The supporting dive crew would also operate from the causeway. All components would be recovered, loaded on trucks, and shipped to offsite recycling or disposal.

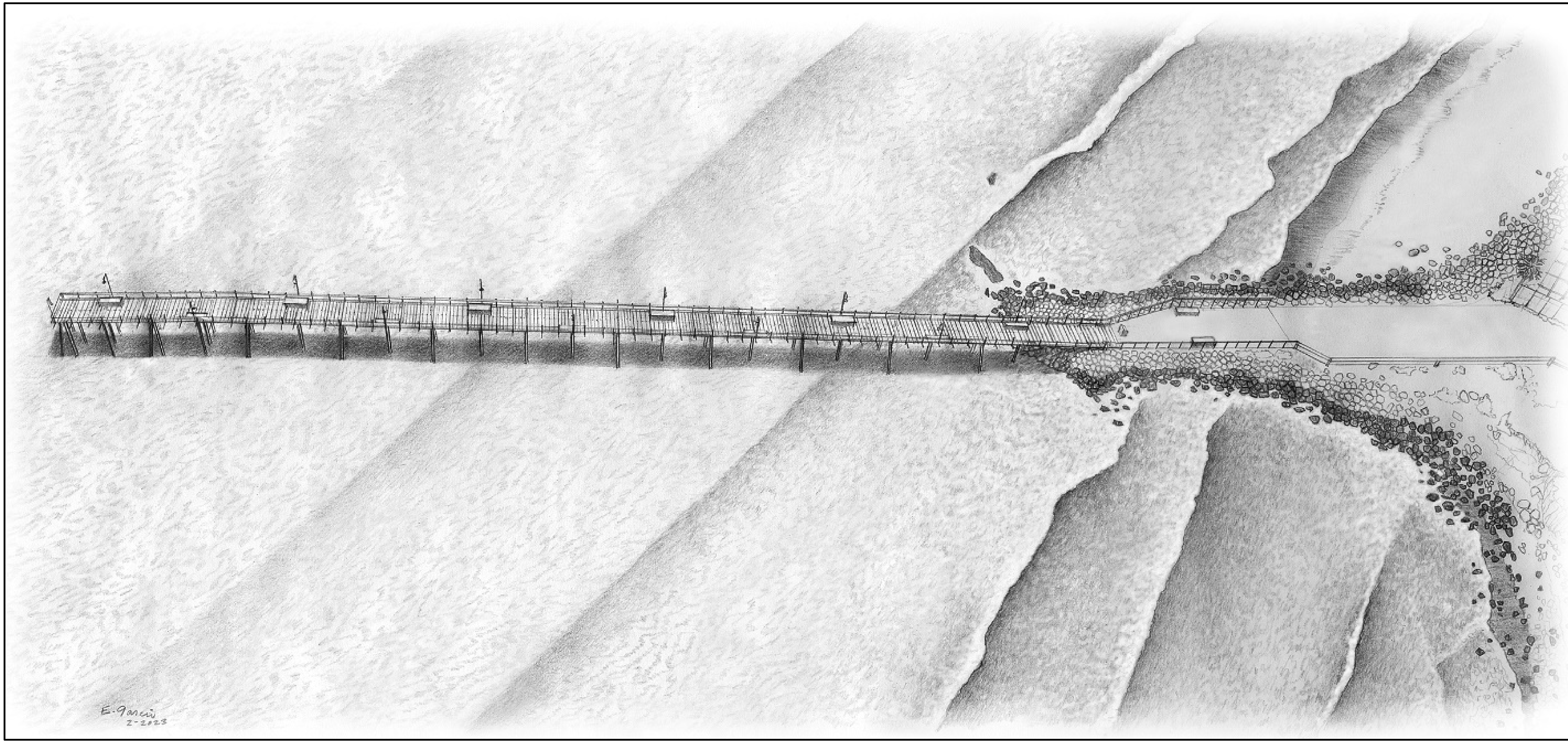
The causeway would be reconfigured to provide a stable and safe pier structure (artist's rendition in Figure 5-4) that would be approximately 840 feet in length (1,892 feet to be removed), which equates to approximately 30 percent of the total length to stay versus 70 percent to be removed. The pier is anticipated to include benches and lighting, as well as signage at the front of the facility, and could add to the recreational value of the community.

Although an engineering analysis would need to be completed in support of this Alternative to confirm what is required for long-term operation, it is anticipated that additional piles would be driven at the end of the pier to stabilize the remaining pier structure. For the purposes of this analysis, installation of these piles is anticipated to also be completed from the remaining causeway segment using a shore-based equipment spread.

Similar to the proposed Project, the Onshore Facility would be remediated and left in a condition acceptable for future public use, the SCC Parcel would be improved under one of the three options considered, and decommissioning activities at the OPC would include removing the pipelines from the 30-inch-diameter casing north to the concrete vault, and then filling the casing with cement slurry.

The Partial Causeway Removal Alternative is included to evaluate a full range of scenarios as previously discussed, with regard to the final disposition of the causeway and meets the Project objectives, as this Alternative would allow for an opportunity for future use of the remaining pier section for recreational purposes, consistent with the Public Trust. By removing a portion of the causeway and associated structures, part of the causeway route would also be returned to a natural state. Additionally, this Alternative meets all of the other Project objectives outlined in Section 1.2.2.

Figure 5-4. Partial Causeway Removal Alternative Concept Drawing



5.4.4.2 Impact Analysis

Aesthetics

The offshore Project site can be seen from a number of public viewpoints, including Mussel Shoals Beach, U.S. Highway 101 and PCH (eligible scenic highway), and the bike path located along the southbound shoulder of U.S. Highway 101 near the Mussel Shoals community.

Partial removal of the causeway would necessitate the introduction of temporary construction equipment on the causeway for the period of time it takes to complete the partial removal and reconfiguration (approximately 142 days). Although **MM AES-1a** through **MM AES-1c** would be implemented to reduce potential effects to public views from decommissioning activities to less than significant, based on the additional amount of time required to complete the Partial Causeway Removal Alternative, this Alternative would cause greater temporary impacts to the views of the community than the proposed Project.

However, under the Partial Causeway Removal Alternative, the existing views from these areas would be permanently changed as shown in Figures 5-5 and 5-6 (photoshopped artist's renditions looking from the southwest and northeast). This change would return a portion of the previous causeway segment connecting to Rincon Island to a natural state, where unobstructed views of the Pacific Ocean and Channel Islands could be seen. Additionally, this change would allow for Rincon Island to appear as an island offshore, and for the remaining causeway segment to appear more "pier-like," consistent with several other pier structures that occur along the coastline.

Although protection of the existing viewshed has been specified as the preference for some residents of the Mussel Shoals community, this long-term change to aesthetics is considered a beneficial impact as compared to the proposed Project.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Partial Causeway Removal Alternative; therefore, the aesthetic impacts associated with these decommissioning areas would be the same as with the proposed Project.

Figure 5-5. Partial Causeway Removal Alternative Concept (Looking Southwest)

Figure 5-6. Partial Causeway Removal Alternative Concept (Looking Southeast)

Air Quality

Decommissioning-related air pollutant emissions associated with the Partial Causeway Removal Alternative would be greater than the proposed Project; an additional 0.58 tons of NO_x and 0.05 tons of ROC would be generated by removal of a portion of the causeway (see Appendix I for calculations). However, the maximum 12-month period air pollutant emissions would be the same as the proposed Project since this task would not be conducted in the peak year (Year 1), but rather following the completion of Island decommissioning activities. Air pollutant emissions associated with this Alternative would not exceed the 25 tons per year NO_x and ROC thresholds (each, respectively) used in this EIR and a less than significant impact would result. Additionally, **MM AQ-1** would be implemented to further reduce decommissioning-related air pollutant emissions.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Partial Causeway Removal Alternative; therefore, the air quality impacts associated with these decommissioning areas would be the same as with the proposed Project.

Biological Resources

Similar to the proposed Project, retention of Rincon Island primarily in its current state in support of the Partial Causeway Removal Alternative would require the temporary use of construction equipment at the Island to remove the contaminated soil and interstitial water and backfill with clean soil. These activities would take place prior to removal of a portion of the causeway and result in a temporary disturbance to marine birds that utilize the Island for roosting and foraging. Similar to the proposed Project, **MM BIO-1b** and **MM BIO-4** would be implemented to inform Project personnel of impacts to special status species and ensure the protection of bird species onsite. Retention of the Island would continue to provide the biological benefit of isolated hard-substrates and topography that support localized habitats and wildlife communities.

Removal of a portion of the causeway would result in the permanent loss of marine bird roosting habitat, which would not occur with the proposed Project. Impacts to local marine bird populations would be greater than the proposed Project, but considered less than significant as Rincon Island and a portion of the causeway (pier) would remain as offshore roosting habitat.

Removal of a portion of the causeway and installation of additional support piles would be performed utilizing a land-based equipment spread. The physical removal of pilings would introduce temporary turbidity and affect water quality. High levels of sustained turbidity have the potential to affect filter feeding invertebrates and reduce visibility for fish and mammals. In addition, removal of the causeway pilings would permanently eliminate some hard-substrate surface areas in the form of pilings currently used by intertidal and subtidal communities from the cut point out to the Island. A portion of this hard substrate would be replaced by installation of support piles at the end of the causeway section that will remain. However, based on a recent dive survey (Appendix D2), the habitat present on the pilings in this section of causeway is less biologically diverse than that of the remaining section close to shore. Additionally, there is better quality hardbottom habitat present within adjacent hard substrate rock outcrops on the seafloor along the causeway, which would remain. Regardless, although the loss of habitat from piling removal would be greater than the proposed Project, impacts would remain less than significant.

Removal of a portion of the causeway may disturb marine mammals, specifically pinnipeds, if they are foraging in the area during demolition activities. In-water activities including piling removal with cranes and divers could cause pinnipeds or other marine mammals in the area to change their foraging behavior or avoid the area during work activities. Although sea turtles are rare in the Project area, there is a low likelihood they could occur and may be temporarily displaced or impacted by in-water work. Impacts to marine mammals and sea turtles would be greater than the proposed Project, including potential impacts to behavior, which would require additional mitigation such as a marine mammal mitigation and monitoring plan. With the inclusion of **MM ALT-A** (full text included in Reefing Alternative discussion above), impacts to marine mammals and sea turtles would be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, the biological impacts for decommissioning activities associated with the Partial Causeway Removal Alternative for decommissioning activities in these areas would be the same as with the proposed Project.

Cultural Resources

There are no known submerged cultural resources within the vicinity of Rincon Island and the causeway that would be affected during implementation of the Partial Causeway Removal Alternative, therefore impacts would remain less than significant. However, as previously discussed, Rincon Island and the causeway were constructed in 1958, which makes the facilities more than 50 years old and a cultural resource. Due to the Island's unique development and construction, and association with the significant theme of oil exploration, development, and production within the State of California, Rincon Island and the causeway have the potential to qualify as "historical resources" as defined by CEQA. If determined CRHR-eligible, partial removal of the causeway could impact any one of the seven aspects of integrity (location, design, setting, materials, workmanship, feeling, association), which would be a significant and unavoidable impact.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, the cultural resources impacts associated with these decommissioning areas would be the same as with the proposed Project.

Tribal Cultural Resources

There are no known submerged tribal cultural resources within the vicinity of Rincon Island and the causeway, therefore no impacts related to a substantial adverse change to a previously undiscovered tribal cultural resource would occur during construction of the Partial Causeway Removal Alternative. Additionally, the proposed activities for this Alternative include the removal of historic-aged structures and the removal of artificial fill soils. Therefore, impacts to previously undiscovered tribal cultural resources are not anticipated, and no impact would result.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, impacts to tribal cultural resources associated with these decommissioning areas would be the same as with the proposed Project.

Geology and Coastal Processes

Surface Erosion

Similar to the proposed Project, decommissioning activities at each Project site associated with the Partial Causeway Removal Alternative would have the potential to result in short term impacts to surface erosion. As such, incorporation of **MM GEO-1, MM AQ-1**, and **MM HWQ-1** would be required to mitigate the potential for surface erosion. With implementation of **MM GEO-1, MM AQ-1**, and **MM HWQ-1**, the impact would be less than significant.

Seismic Hazards

Similar to the discussion of the proposed Project regarding geologic hazards and wave exposure, potential geologic impacts resulting from retention of Rincon Island would be similar to the proposed Project and is a baseline condition. Partial removal of the causeway structure would still leave a significant portion of the structure as a "pier" (approximately 840 feet was used in this analysis) that would still be subject to offshore geologic hazards and resulting wave conditions and damage. If this Alternative is selected, an updated engineering study would need to be conducted to determine the current condition of the causeway and to develop a plan for the retrofits necessary to create a structure that would be utilized by the public and maintained in accordance with current building codes and seismic standards.

However, in accordance with CEQA, Project analysis should address the potential impacts of the Project on the environment, not the potential impacts of the environment on the Project. As stated by the California Supreme Court, "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users." (California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal.4th 369, 386 (CBIA)). Project activities would not exacerbate existing geological conditions or the potential for seismic ground shaking. This analysis therefore does not evaluate existing environmental risks that could affect the Project because the Project would not exacerbate them, consistent with the Court's ruling in CBIA. Therefore, no impact would result.

Coastal Processes

Under the Partial Causeway Removal Alternative, a portion of the causeway (1,892 feet) would be removed. According to Griggs (Griggs 2022; [Appendix G1]) all historic evidence from the many aerial photographs of this area, spanning nearly a century, indicate that the shoreline and beaches both upcoast and downcoast of Punta Gorda and Mussel Shoals have not been impacted by the construction of the causeway and would, therefore, not be impacted by either partial or complete removal of the causeway (Appendix G).

Additionally, the causeway is downcoast from where the waves break on the sandy beach so that the causeway has no impact on shoreline wave action at this location. Removing all but the shoreward 840 feet of causeway would therefore have no effect on the shoreline and the sandy upcoast beach. Therefore, a less than significant effect from partial removal of the causeway on coastal processes would result.

There would be no changes to the proposed activities at the SCC Parcel, OPC , or Onshore Facility for the Partial Causeway Removal Alternative; therefore, the geologic impacts associated with these decommissioning areas would be the same as with the proposed Project.

Greenhouse Gas Emissions

Total GHG emissions associated with the Partial Causeway Removal Alternative would be greater than the proposed Project (an additional 141.6 metric tons CO_2E) generated by removal of a portion of the causeway (see Appendix I for calculations). However, the maximum 12-month period GHG emissions would be the same as the proposed Project since this task would not be conducted in the peak year (Year 1), but rather following completion of Rincon Island decommissioning activities. GHG emissions associated with this Alternative would not exceed the 10,000 metric tons per year CO_2E threshold used in section 4.2.4 and would be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, generation of GHG emissions associated with these decommissioning areas would be the same as with the proposed Project.

Hazards and Hazardous Materials

The Partial Causeway Removal Alternative would have similar impacts on Rincon Island as the proposed Project. Mitigation measures **MM HAZ-1a** through **MM HAZ-1e**, as well as **MM HWQ-1**, would be implemented to reduce potential impacts from hazards and hazardous materials during or following decommissioning activities. During construction, there remains a potential for a release of hazardous materials from Project equipment and machinery. However, partial removal of the causeway for the Partial Causeway Removal Alternative would result in minimal risk since the petroleum hydrocarbon-containing pipelines were removed from the causeway during Phase 1. Removal of the wooden deck and pilings along the causeway has a low potential to release wood preservatives to the ocean if the deck materials are damaged during removal. The wood decking materials and support pilings would be sampled and chemically analyzed to identify the potential presence of regulated materials prior to removal. However, the addition of equipment to perform causeway removal would result in an increase in the risk of spills due to the presence of fuels necessary to run the equipment. **MM HAZ-1c** and **MM HAZ-1d** would be implemented to reduce the potential risks if a spill occurred. With the implementation of **MM HAZ-1c** and **MM HAZ-1d**, the impact would be less than significant. Cumulative impacts associated with hazardous materials would be the same as with the proposed Project.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, impacts related to hazards and hazardous materials associated with these decommissioning areas would be the same as with the proposed Project.

Hydrology and Water Quality

Hydrology and water quality impacts under the Partial Causeway Removal Alternative would be similar to the proposed Project. Partial removal of the causeway and reinforcement of the remaining portion of the causeway would cause minor turbidity impacts to the ocean water during removal and installation of pilings. These impacts are anticipated to be temporary and could be addressed through the preparation and implementation of a Water Quality Monitoring Plan as part of the Project Workplan that would include measures for monitoring water quality parameters (e.g., pH, temperature, dissolved oxygen, turbidity, and visual assessment for floating particulates), contingency measures for mitigating or reducing water quality impacts, and reporting of findings regularly to the appropriate regulatory agencies. Additionally, **MM HWQ-1** would be implemented to reduce potential impacts from construction-related erosion and sedimentation. With the implementation of **MM HWQ-1**, the impact would be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, impacts related to water quality associated with these decommissioning areas would be the same as with the proposed Project.

Land Use and Planning

Temporary conflicts with State and local policies during implementation of the Partial Causeway Removal Alternative would be similar to the proposed Project, and less than significant with mitigation, as identified in Table 4.10-1. Partial removal of the causeway would remain consistent with County policies regarding aesthetics and coastal access. Project objectives including preparation of the Project sites for potential future uses would remain consistent with the Partial Causeway Removal Alternative. However, this Alternative would remove a portion of the causeway, which would eliminate vehicle access to Rincon Island and limit potential reuse options which is not a significant land use impact but would be a future land use consideration.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative; therefore, impacts related to Land Use and Planning associated with these decommissioning areas would be the same as with the proposed Project.

Noise

Removal of a portion of the causeway would generate temporary noise and vibration from heavy equipment and vehicles during decommissioning activities.

Noise associated with partial removal of the causeway would include staging of equipment directly adjacent to residences to the west of the causeway entrance. Additionally, installation of support piles at the end of the remaining pier structure would require pile driving equipment and associated noise impacts. Construction activities would be limited to daytime hours to reduce potential noise impacts to adjacent uses. The estimated noise level at the nearest residence associated with partial causeway removal is 71.1 dBA Leq (Appendix J).

However, even though these increases in noise levels during the day would be perceptible to adjacent residences, the County of Ventura thresholds do not consider nearby residences as noise-sensitive receptors if construction occurs during daytime hours. Therefore, although the amount and duration of noise generation would be greater under this Alternative than the proposed Project, significant noise impacts would not occur. Additionally, CSLC will continue to provide notifications to residents within the Mussel Shoals community that would include information about the proposed Project and hours of operation so that they would be aware of when construction activities and noise are anticipated. **MM REC-1** would limit idling of engines that are queuing in order to minimize additional noise. With the implementation of **MM REC-1**, the impact would be less than significant. Cumulative impacts would also be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Partial Causeway Removal Alternative; therefore the impacts to noise associated with these decommissioning areas would be the same as with the proposed Project.

Recreation

Partial removal of the causeway would limit any potential reuse of Rincon Island that could support future recreational uses, which is not a significant impact to recreation since Rincon Island is not currently utilized for this purpose, and due to the abundant use of the Island by roosting and foraging birds, the Island may not be suitable for active recreational use.

Similar to the proposed Project, partial removal of the causeway to create a pier structure would require construction vehicles and equipment to access the causeway work area via U.S. Highway 101 and Old PCH through Mussel Shoals. During this time, activities may impact access to the North Coast Coastal Trail by increasing vehicle traffic near the trail, temporarily blocking bicycle and pedestrian traffic, or temporarily re-routing the trail users to a safer part of the road while construction traffic and trucking is occurring. Activities on the beach would temporarily displace pedestrian traffic along this area. However, with the implementation of **MM REC-1**, the impact would be less than significant.

Further, as discussed above, partial removal of the causeway may reduce the availability of fishing opportunities in the area for recreational fishers, as it would permanently reduce the hard-substrate habitat on the causeway piles that support coastal and pelagic fish species and refuge habitat for upper trophic levels (fish and marine mammals). However, a significant reduction in fishing opportunities is not anticipated as once completed, the pier structure would provide pedestrian access to deeper water fishing areas including rocky outcrops, which provide good quality hard-substrate habitat along the causeway alignment.

No discernible changes to the surf break that currently occurs at Little Rincon/Mussel Shoals are anticipated following partial removal of the causeway. As indicated within the surf study completed on behalf of the Project (Appendix H), the impact of partial causeway removal on nearshore processes would be insignificant because the size of the causeway piles is negligible compared to the wavelength and scale of the nearshore area. In other words, the diameter of the causeway piles is too small and the spread between the piles is too great for the pilings to affect the surf break; a less than significant impact would result.

Cumulative recreational impacts would be mitigated through implementation of **MM REC-1**. With implementation of **MM REC-1**, a less than significant impact would result.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Partial Causeway Removal Alternative; therefore, the impact to recreation associated with these decommissioning areas would be the same as with the proposed Project.

Transportation and Traffic

Partial removal of the causeway would necessitate construction equipment access from onshore. Access to the causeway (as well as for improvements to the SCC Parcel, similar to the proposed Project) would require access through the Mussel Shoals community via Old PCH to Ocean Avenue; equipment would be staged within the locked and gated causeway entrance for the duration of construction activities. Decommissioning activities would generate vehicle trips and vehicle miles traveled and cumulative impacts to transportation and traffic during construction. Staging and transport of heavy debris loads (treated wood and metal) would be required from the Mussel Shoals area following dismantling of the causeway and to import and export materials for the SCC Parcel improvement(s).

As discussed in Section 4.13.4, transportation analysis under CEQA is focused on passenger vehicles and VMT per CEQA Guidelines Section 15064.3, subdivision(b). The Partial Causeway Removal Alternative would result in the same number of peak day passenger vehicle trips as the proposed Project. Therefore, impacts would be the same and less than the 110 trips per day screening threshold and less than significant.

CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks), not heavy-duty trucks (Governor’s Office of Planning and Research 2018b); therefore, VMT generated by Project-related heavy-duty truck trips are excluded from the analysis. Regardless, consistent with the proposed Project, a Recreational Site Access and Traffic Management Plan (**MM REC-1**) would be developed and implemented to coordinate truck traffic. Additionally, CSLC would provide notices to local residents prior to Project implementation regarding Project timing and hours. A less than significant impact would result.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Partial Causeway Removal Alternative; therefore, potential transportation and traffic impacts associated with these decommissioning areas would be the same as with the proposed Project.

Utilities and Service Systems

Implementation of the Partial Causeway Removal Alternative would require removal of 1,892 feet or approximately 70 percent of the existing causeway, which would generate a significant volume of waste as compared to the proposed Project. Specifically, approximately 1,988 cubic yards of wooden decking material and 1,459 cubic yards of piling material would be removed, which equates to approximately 2,327 tons. Wood decking materials and support pilings would be sampled and chemically analyzed to identify the potential presence of regulated materials prior to removal. This additional waste material would have the potential to increase the volume of waste material going to local waste receiving facilities.

This additional material would likely be taken to Waste Management for disposal. Waste Management has the capacity to receive up to 3,000 tons per day of refuse. The additional wooden deck material from the causeway would contribute approximately 2,327 tons of waste (using an average weight of wood as 50 pounds per cubic foot). This is not anticipated to create a significant impact to the daily capacity of Waste Management, as the waste materials would be collected as this portion of the causeway is dismantled over a period of approximately 142 days, or an average of 17 tons per day, which is only a small percentage of the 3,000-ton daily capacity for this facility. This Alternative would also have the potential to contribute to cumulative impacts to utilities and service systems (Impact US-2), but would be a less than significant impact.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Partial Causeway Removal Alternative; therefore, potential impacts to utilities and service systems associated with these decommissioning areas would remain the same as with the proposed Project.

Wildfire

Similar to the proposed Project, the Partial Causeway Removal Alternative would require work activities at the causeway entrance, which is included in an area designated by CAL FIRE as a very high fire hazard severity zone. However, the causeway entrance is asphalt-paved open space area bounded by fencing and riprap that is free of vegetation. All former oil and gas piping infrastructure has been removed from the causeway entrance. As such, use of the causeway entrance for removal of the causeway would not contribute to an increase in fire risk. Further, **MM WF-1a** and **MM WF-1b** would be implemented to provide adequate planning and notifications for work in areas designated as a very high wildfire risk. With the implementation of **MM WF-1a** and **MM WF-1b**, the impact would be less than significant. Cumulative impacts would remain the same as the proposed Project and are less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Partial Causeway Removal Alternative; therefore, potential impacts to wildfire associated with these decommissioning areas would be the same as with the proposed Project.

5.4.5 Offshore Disposal Alternative (Rincon Island)

In order to minimize the total number of truck trips that would be required within the Mussel Shoals community, waste material from Rincon Island could be alternatively transported by a materials barge/tug offshore from Rincon Island to a receiving facility near Port Hueneme for recycling or disposal, rather than via onshore transport as contemplated by the proposed Project (Figure 5-7). A typical materials barge (such as Curtain Maritime's Abalone Point, a 185-foot vessel out of the Port of Long Beach [POLB] or equivalent) has a carrying capacity of approximately 2,000 long tons[16] (Figure 5-8).

As indicated in Table 2-2, removal of surface structures, concrete, and pavement at Rincon Island by a crane stationed on the island would result in approximately 604 cy (367 tons/361 long tons) of recyclable materials (scrap metal, concrete rubble, and asphalt). Additionally, approximately 9,605 cubic yards (9,336 tons/9,188 long tons) of contaminated soil (sand and gravel) would be taken from Rincon Island by a materials barge to Port Hueneme.

16 The displacement of ships relative to their carrying capacity is measured in long tons. A long ton is 1.12 US tons.

Figure 5-7. Offshore Vessel Traffic and Onshore Trucking Routes

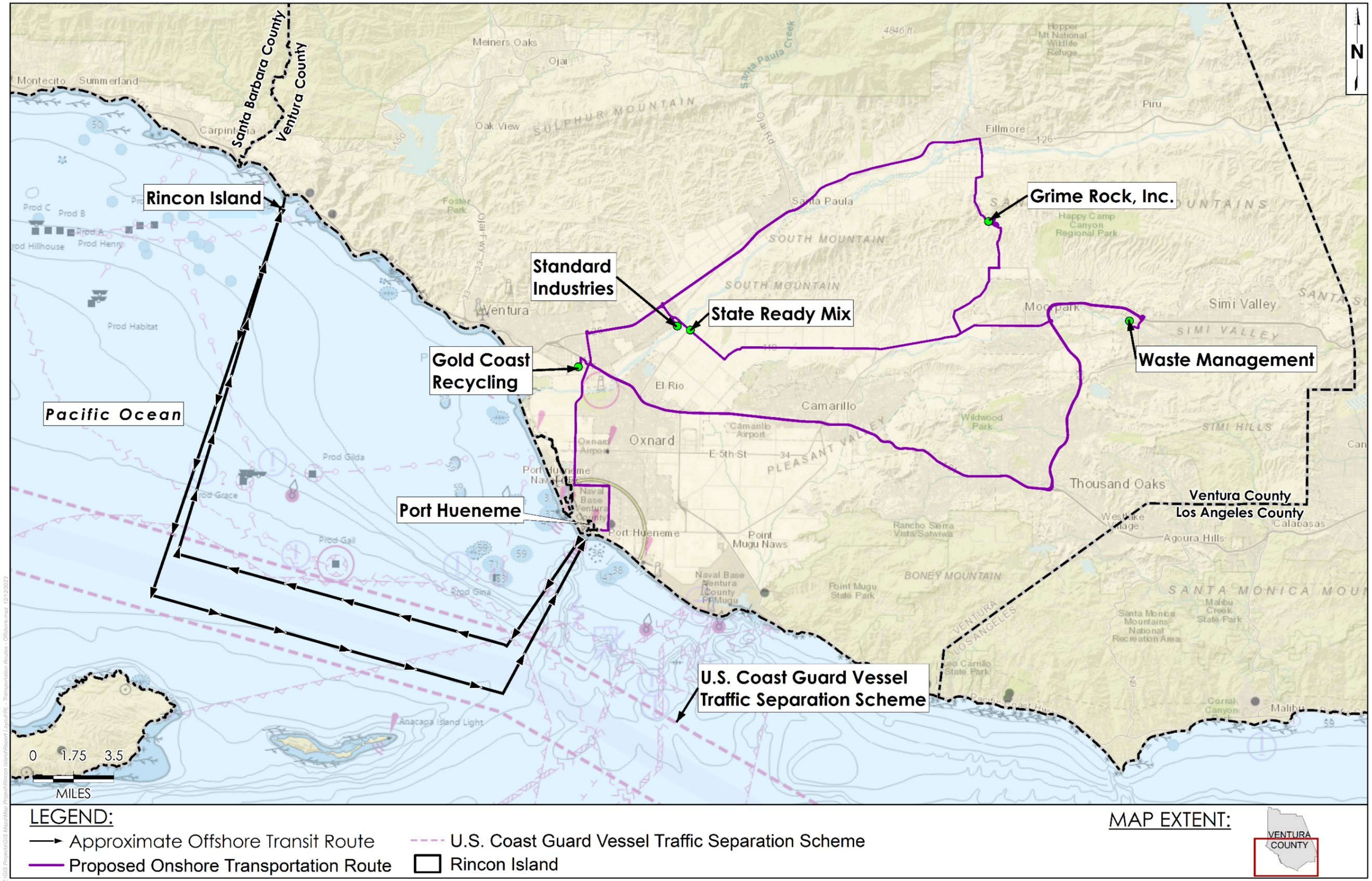
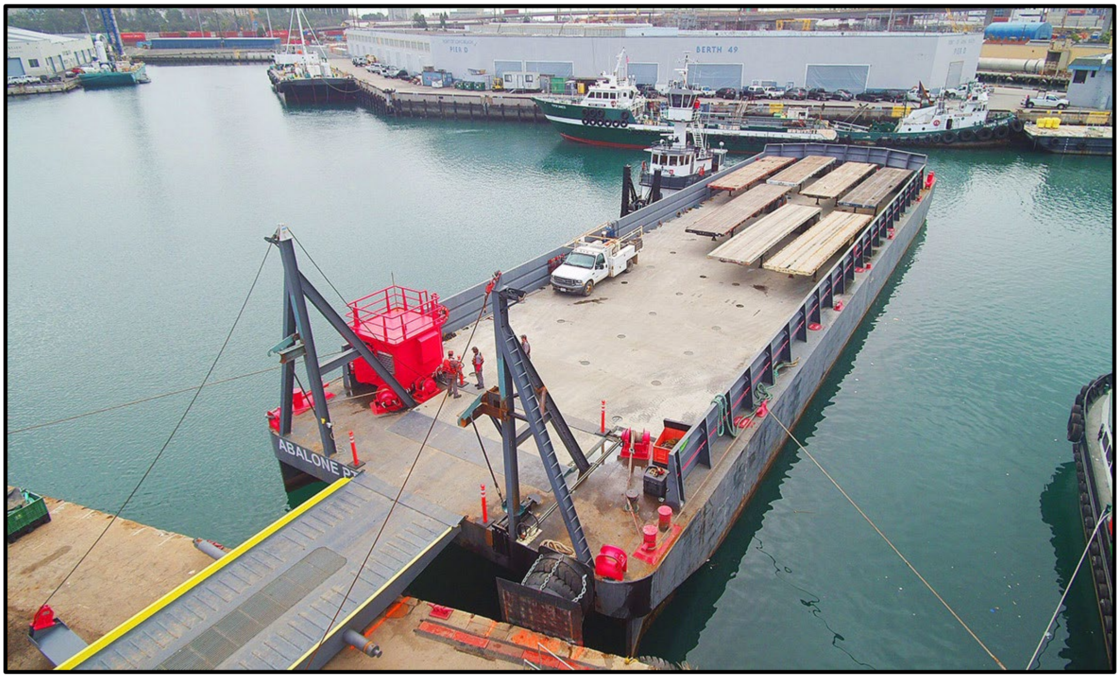


Figure 5-8. Curtain Maritime Abalone Point Materials Barge (Example)



In order to accommodate waste generated from decommissioning activities at Rincon Island, the materials barge would need to make approximately five trips from Rincon Island to Port Hueneme (a distance of approximately 30 nautical miles one way) for waste disposal/recycling of materials, and another five trips from Port Hueneme to Rincon Island for import of clean soil for backfill. Material would be temporarily staged in bins on the Island as space permits in order to consolidate vessel hauling trips.

For the Offshore Disposal Alternative, waste material would be placed into 20-yard roll off bins by excavators on Rincon Island, and the bins would then be transferred by a small truck mounted crane to the Island wharf, where the materials barge would be anchored or moored. The crane would be utilized to transfer the bins from the Island wharf to the materials barge. Additionally, approximately 9,605 cubic yards (9,336 tons/9,188 long tons) of clean soil would be brought in for backfill and loaded from the materials barge onto the Island using the same truck mounted crane at the Island wharf.

Once the vessels offload the bins of waste material at Port Hueneme, a significant number of trucks would be required to transfer the bins to each receiving facility (approximately 1,022 total; including 31 trips for export of scrap materials to Standard Industries, 31 trips for export of pavement and concrete to

State Ready Mix, and 960 trips for export of hydrocarbon contaminated soil to Waste Management). The bins would be trucked to onshore receiving facilities, located approximately 10 to 35 miles away, in Ventura County. From Port Hueneme, the most immediate route for hauling would be northward on Victoria Avenue and eastward onto U.S. Highway 101 or Highway 126 towards Standard Industries or State Ready Mix in Oxnard, Grimes Rock in Moorpark, or Waste Management in Simi Valley.

The Offshore Disposal Alternative applies to solid waste streams only. Liquid waste would be transported for disposal onshore utilizing a vacuum truck to carry waste from Rincon Island back to shore via the causeway, and would then be transported using U.S. Highway 101 south to World Oil in Los Angeles County, similar to the proposed Project.

The Offshore Disposal Alternative is intended to minimize the total number of truck trips that would be required within the Mussel Shoals community, while still meeting the Project objective of remediation of contamination at Rincon Island. Additionally, this Alternative meets all of the other Project objectives outlined in Section 1.2.2.

5.4.5.1 Impact Analysis

Aesthetics

Removal and importation of materials from/to Rincon Island using an offshore spread (tug/materials barge) would require the temporary introduction of large vessels and equipment offshore for the duration of these activities. As noted above, approximately 10 trips (five for export of materials and five for import of clean soil) would be required. During this time, the use of marine vessels would introduce an incompatible visual element to the offshore Project site. Although such marine vessels are typically seen in the Santa Barbara Channel, it is uncommon for large vessels to come so close to shore. Additionally, depending upon the time of year (hours of daylight) when decommissioning activities occur, lighting of the vessel in accordance with standard safety protocols may also be required to work in low light conditions during the proposed 7 a.m. to 5 p.m. work timeframe. The introduction of additional offshore light and large vessels would be considered a temporary impact on the local viewshed. Mitigation Measure **MM AES-1c** regarding night lighting would be applied to minimize potential impacts, but vessel lighting in accordance with offshore safety protocols would not allow for all lighting to be shielded; therefore, a significant and unavoidable impact would result. Consequently, the Offshore

Disposal Alternative would have greater impacts to aesthetics than the proposed Project.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Offshore Disposal Alternative; therefore, the aesthetic impacts associated with these decommissioning areas would be the same as with the proposed Project.

Air Quality

Air pollutant emissions associated with Island decommissioning activities under the Offshore Disposal Alternative would generate approximately 1.91 tons NO_x and 0.22 tons ROC more than the proposed Project, primarily due to vessel emissions associated with loading and transporting the materials barge to Port Hueneme. In addition, the maximum 12-month period air pollutant emissions would be greater (6.34 tons NOx and 0.68 tons ROC) than the proposed Project (see Appendix I for calculations). However, air pollutant emissions associated with this Alternative would not exceed the 25 tons per year NO_x and ROC thresholds (each, respectively) used in this EIR, and a less than significant impact would result. Additionally, **MM AQ-1** would be implemented to further reduce decommissioning-related air pollutant emissions. As such, Alternative-specific and cumulative impacts are less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative. Therefore, air quality impacts associated with these decommissioning areas would be the same as with the proposed Project.

Biological Resources

Similar to the proposed Project, this Alternative would retain Rincon Island mostly in its current state, but would require the temporary use of construction equipment at the Island to remove remaining structures and the contaminated soil and backfill with clean soil. As with the proposed Project, activities on the Island would not permanently impact bird foraging and roosting activities and would have no significant effect on the local populations of bird species including special status species (California brown pelican, double-crested cormorant, and osprey); however, there would be temporary disturbances to roosting birds while large marine vessels are actively working adjacent to the Island, especially along the exterior tetrapods which are preferred roosting habitat. The Island would continue to provide the biological benefit of isolated hard-substrates and topography that support localized habitats and wildlife communities.

Mobilization of large marine vessels from the POLB and the trips to Port Hueneme required for the Offshore Disposal Alternative (approximately 10 trips) increases the likelihood of a vessel interaction with migrating marine mammals and sea turtles, which would require additional mitigation such as a marine mammal and sea turtle monitoring plan. With the inclusion of **MM ALT-A** (see full text above in Reefing Alternative discussion), impacts to marine mammals and sea turtles would be less than significant.

Potential anchoring of these vessels may also result in impacts to sensitive hardbottom marine habitat that would not occur with the proposed Project. With the inclusion of **MM ALT-B**, impacts to sensitive marine areas would be less than significant.

MM ALT-B: Anchoring Plan. CSLC or its contractor shall prepare an Anchoring Plan for the derrick barge and any other vessels requiring large or frequent anchoring. The Plan shall describe the offshore activities for which vessel anchoring is required, including anchoring arrangements, and general procedures for deploying and recovering anchors. Based on seafloor mapping of the Project region, anchoring locations shall avoid hard substrate and sensitive marine areas (e.g., surfgrass). The Plan shall include:

- The positioning of large anchors used to moor the derrick barge to locations that avoid damage to the seabed, surfgrass, and canopy kelp habitat from both the anchors and mooring chains. If alternative anchor sites with no habitat cannot be identified, consultation with U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) shall be required prior to finalization of the Plan.
- Additional protective measures such as anchor deployment speeds (to avoid impacts to epifaunal fishes and invertebrates).
- A requirement for post-Project bathymetric surveys within 1 month after anchors have been removed to verify that anchor damage has not occurred. If Project-related damage or debris is present in the post-Project survey, the anchoring plan will specify that the area should be returned to pre-project conditions.

Regardless, this Alternative would result in increased impacts to biological resources compared to the proposed Project.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Offshore Disposal Alternative; therefore, the biological resources impacts associated with these decommissioning areas would be the same as with the proposed Project.

Cultural Resources

No changes to potential impacts related to cultural resources would result from implementation of the Offshore Disposal Alternative.

Tribal Cultural Resources

No changes to potential impacts related to tribal cultural resources would result from implementation of the Offshore Disposal Alternative.

Geology and Coastal Processes

Use of offshore vessels for transport of materials to and from Rincon Island would not result in a change that would affect geology or coastal processes. No changes to potential impacts related to geology and coastal processes would result from implementation of the Offshore Disposal Alternative in comparison to the proposed Project.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Offshore Disposal Alternative; therefore, the impacts associated with these decommissioning areas would be the same as with the proposed Project. As such, incorporation of **MM GEO-1, MM AQ-1**, and **MM HWQ-1** would be required to mitigate the potential for surface erosion. With implementation of **MM GEO-1, MM AQ-1**, and **MM HWQ-1**, the impact would be less than significant.

Greenhouse Gas Emissions

Total GHG emissions associated with Island decommissioning activities under the Offshore Disposal Alternative would be approximately 75.0 metric tons CO_2E greater than the proposed Project primarily due to vessel emissions associated with loading and transporting the materials barge to Port Hueneme. In addition, the maximum 12-month period GHG emissions would be greater (1,386.2 metric tons CO_2E) than the proposed Project (see Appendix I for calculations). However, GHG emissions associated with this Alternative would not exceed the 10,000 metric tons per year CO_2 equivalent threshold used in this EIR and would be less than significant. Since the Project contribution would be temporary and less than significance thresholds, cumulative impacts would also be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for this Alternative. Therefore, GHG emissions associated with these decommissioning areas would be the same as with the proposed Project.

Hazards and Hazardous Materials

Mobilization of large marine vessels required for an offshore disposal option increases the potential for the release of contaminated materials in the event of a vessel collision or if an oil spill or fuel release occurs in the nearshore or offshore study area, or further out to sea during transport, which would result in a significant impact. However, Project activities would be conducted in accordance with response procedures specific to each offshore vessel (an individual vessel response plan is required by the U.S. Coast Guard for large vessels), which would limit the likelihood of a spill occurring. Additionally, loading contaminated soil from Rincon Island (despite being in bins) to an offshore materials barge increases the potential for a release of this material to marine waters. If this Alternative was selected, development of the Contaminated Materials Management Plan (**MM HAZ-1d**) would need to include contingencies to reduce or respond to the release of contaminated soil to the wharf or adjacent marine waters at Rincon Island or the wharf or adjacent marine waters at Port Hueneme in the event that material from a transport bin is spilled. Additionally, **MM HAZ-1c** includes preparation of an Oil Spill Contingency Plan to plan for and address unauthorized releases of materials. With implementation of **MM HAZ-1c** and **MM HAZ-1d**, the impact would be less than significant. Cumulative impacts associated with hazardous materials would be the same as the proposed Project.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Offshore Disposal Alternative; therefore, the hazards and hazardous materials impacts associated with these decommissioning areas would be the same as with the proposed Project.

Hydrology and Water Quality

Mobilization of large marine vessels required for an offshore disposal option increases the potential for significant impacts to water quality in the event of a vessel collision or if an oil spill or fuel release occurs in the nearshore or offshore area. However, as described above, Project activities would be conducted in accordance with response procedures specific to each offshore vessel, which would limit the likelihood of a spill occurring.

Potential anchoring of these vessels may also result in an increase in turbidity. These impacts are anticipated to be temporary and could be mitigated through the preparation and implementation of a Water Quality Monitoring Plan that would be incorporated into the Project Workplan that would include measures for monitoring water quality parameters (e.g., pH, temperature, dissolved oxygen, turbidity, and visual assessment for floating particulates), contingency measures for minimizing water quality impacts, and reporting of findings regularly to the appropriate regulatory agencies. Additionally, loading contaminated soil from Rincon Island to an offshore materials barge increases the potential for a release of this material to marine waters. If this Alternative was selected, development of the Contaminated Materials Management Plan (**MM HAZ-1d**) would need to include contingencies to reduce or respond to the release of contaminated soil to the wharf or adjacent marine waters at Rincon Island or Port Hueneme. With the implementation of Project Workplan measures regarding water quality monitoring activities and **MM HAZ-1d,** the impact would be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Offshore Disposal Alternative; therefore, the hydrology and water quality impacts associated with these decommissioning areas would be the same as with the proposed Project.

Land Use and Planning

An Offshore Disposal Alternative is intended to reduce the number of truck trips required both in and out of the Mussel Shoals residential community. Material would be brought into Port Hueneme where roadways leading to and from the Port are designed for high-volume traffic. From there, waste materials would be trucked to receiving facilities that are located within industrial areas. Use of Port Hueneme, major roadways, and industrially zoned waste disposal facilities would result in a less than significant impact to land use. The introduction of vessels offshore in support of this option would not result in any land use conflicts, and no impact would result.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Offshore Disposal Alternative; therefore, the land use impacts associated with these decommissioning areas would be the same as with the proposed Project.

Noise

In addition to utilization of the causeway for transport of wastewater and personnel access, the introduction of large vessels and equipment spreads offshore would have the potential to generate a slight increase in noise to residents within the Mussel Shoals community for the 10 trips required in support of Project activities. These noise level increases would be associated with tug support of the barge movements, but such activities would be extremely limited and over 3,000 feet from shore, minimizing any potential impacts. Prior to arrival, CSLC would continue to provide Project notification updates to the Mussel Shoals community to alert residents of when work activities are anticipated. A less than significant impact would result.

Additionally, once material is taken to Port Hueneme, it would be loaded onto trucks for transport to local receiving facilities in Ventura County. Additional noise would be generated for loading and transport (including approximately 1,022 total; including 31 trips for export of scrap materials to Standard Industries, 31 trips for export of pavement and concrete to State Ready Mix, and 960 trips for export of hydrocarbon contaminated soil to Waste Management); however, the intended receiving facilities are located within industrial areas that do not have sensitive receptors that would be affected by the increased noise. Additionally, roadways leading to and from Port Hueneme are designed for high-volume traffic. Existing noise levels along these corridors are reflective of the significant volume of traffic that exists coming from Port Hueneme en route to other major highways in the area.

Following completion of the Rincon Island component of the Project, no permanent noise or vibration impacts would occur, and the area would return to pre-Project conditions. Cumulative impacts would also be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Offshore Disposal Alternative; therefore, the noise impacts associated with these decommissioning areas would be the same as with the proposed Project.

Recreation

Removal of materials from Rincon Island using an offshore spread would require the temporary introduction of large vessels and equipment offshore for the duration of these activities (10 trips). The introduction of this equipment would introduce a new visual element to the coastline, and would potentially also interfere with existing recreational opportunities offshore due to anchoring or implementation of a safety zone surrounding work activities. However, implementation of this Alternative would reduce the number of truck trips required both in and out of the Mussel Shoals community. This reduction of onshore trips and associated construction timing in this location would also result in fewer potential impacts as opposed to the proposed Project with respect to road traffic and access to recreational facilities, including Mussel Shoals Beach. However, work activities associated with other aspects of the Project, including the SCC Parcel and OPC, would continue to utilize this access point. As such, **MM REC-1** would be implemented to facilitate the safety of recreational users in the area. With implementation of **MM REC-1,** Project specific and cumulative impacts would be less than significant.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Offshore Disposal Alternative; therefore, the recreation impacts associated with these decommissioning areas would be the same as with the proposed Project.

Transportation and Traffic

Implementation of an Offshore Disposal Alternative would reduce the number of truck trips required both in and out of the Mussel Shoals community. This reduction of trips would result in fewer potential impacts to local roadway congestion in this area. However, this Alternative would also require the addition of 10 materials barge vessel trips to and from Rincon Island offshore to Port Hueneme (five for export of materials and five for import of clean soil). The materials barge and associated tugs would utilize established vessel traffic lanes offshore; therefore, the introduction of these vessels would result in a less than significant impact to marine transportation.

Once the vessels offload the material at Port Hueneme, a significant number of trucks (approximately 1,022 total; including 31 trips for export of scrap materials to Standard Industries, 31 trips for export of pavement and concrete to State Ready Mix, and 960 trips for export of hydrocarbon contaminated soil to Waste Management) would be necessary to transport the materials from Port Hueneme to the onshore receiving facilities. Although trips each day from Port Hueneme would be limited by truck availability and processing times, Port Hueneme is a busy receiving port, and local roadways leading from Port Hueneme to U.S. Highway 101 are often congested. Specifically, Victoria Avenue averages approximately 55,000 (and up to 61,000) daily trips (VCRMA

2007). Based on the anticipated volume of round trips per day (approximately 20) in addition to avoidance of peak morning (7 a.m. to 9 a.m.) and evening (4 p.m. to 6 p.m.) traffic hours, the additional truck trips from Port Hueneme (averaging 3 per hour during the work window which avoids peak hours) on principal arterial (major) roadways leading to or from the Port would result in a less than significant impact to local roadway congestion in this area.

As discussed in Section 4.13.4, transportation analysis under CEQA is focused on passenger vehicles and VMT per CEQA Guidelines Section 15064.3, subdivision(b). The Offshore Disposal Alternative would result in the same number of peak day passenger vehicle trips as the proposed Project. Therefore, impacts would be less than the 110 trips per day screening threshold and less than significant.

CEQA Guidelines Section 15064.3, subdivision(b) only applies to VMT generated by passenger vehicles (automobiles and light trucks), not heavy-duty trucks (Governor's Office of Planning and Research 2018b); therefore, VMT generated by Project-related heavy-duty truck trips are excluded from the analysis. Regardless, consistent with the proposed Project, a Recreational Site Access and Traffic Management Plan (**MM REC-1**) would be developed and implemented to coordinate truck traffic. A less than significant impact would result.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Offshore Disposal Alternative; therefore, the transportation and traffic impacts associated with these decommissioning areas would be the same as with the proposed Project.

Utilities and Service Systems

No changes to potential impacts related to utilities and service systems would result from implementation of the Offshore Disposal Alternative; therefore, the utilities and service systems impacts would be the same as with the proposed Project.

Wildfire

The Offshore Disposal Alternative would occur offshore and not within an area designated as high wildfire risk. No impact would result.

There would be no changes to the proposed activities at the SCC Parcel, OPC, or Onshore Facility for the Offshore Disposal Alternative; therefore, the wildfire impacts associated with these decommissioning areas would be the same as with the proposed Project.

Environmental Justice

Port Hueneme, the receiving location for the Offshore Disposal Alternative, has areas of higher than average environmental burden and disadvantaged individuals. Therefore, a discussion of Environmental Justice has been included for this Alternative.

According to California Office of Environmental Health Hazard Assessment (OEHHA 2021) California Communities Environmental Health Screening Tool (CalEnviroScreen 4.0) data (accessed December 2023), the transportation corridor along Victoria Avenue en route to U.S. Highway 101 and Highway 126 (which lead to all of the Ventura County waste receiving facilities applicable to solid waste generated at Rincon Island) includes populations that experience 40 to 67 percent vulnerability to environmental burden (meaning between 33 to 60 percent of census Tracts in California have a greater population vulnerability or environmental burdens). These scores can be primarily attributed to pesticide exposure, as Victoria Avenue travels through an active agricultural area, drinking water threats, and traffic.

Based on the existing environmental burdens in the communities adjacent to transportation routes from Port Hueneme to the waste receiving facilities, the environmental factors that are most applicable for consideration of this Alternative are an increase in air quality and traffic impacts. As described above, air pollutant emissions associated with Island decommissioning activities under the Offshore Disposal Alternative would generate approximately 1.91 tons NO_x and 0.22 tons ROC more than the proposed Project, primarily due to vessel emissions associated with loading and transporting the materials barge to Port Hueneme (see Appendix I for calculations). Additionally, once the vessels offload the material at Port Hueneme, a significant number of trucks (approximately 1,022 total; including 31 trips for export of scrap materials to Standard Industries, 31 trips for export of pavement and concrete to State Ready Mix, and 960 trips for export of hydrocarbon contaminated soil to Waste Management) would be necessary to transport the materials from Port Hueneme to the onshore receiving facilities.

Due to the existing environmental burden to communities located along the proposed transportation route, the addition of air quality impacts and additional transportation in this area would be a greater impact than the proposed

Project. If the Commission were to select the Offshore Disposal Alternative for implementation, additional outreach and discussion with local communities would take place to ensure community considerations are factored in a project implementation plan.

6.0 OTHER REQUIRED CEQA SECTIONS AND ENVIRONMENTALLY SUPERIOR ALTERNATIVE DISCUSSION

As lead agency under the California Environmental Quality Act (CEQA), the California State Lands Commission (CSLC or Commission) has prepared this Environmental Impact Report (EIR) to evaluate the potential significant environmental effects of the Rincon Phase 2 Decommissioning Project (Project). The State CEQA Guidelines[17] state that an EIR shall:

- Identify and mitigate any significant impacts related to wasteful, inefficient, or unnecessary use of energy (§ 15126.2, subd. (b))
- Describe any significant impacts, including those that can be mitigated but not reduced to a level of insignificance (§ 15126.2, subd. I)
- Identify significant irreversible environmental changes that would be caused by a proposed project should it be implemented (§ 15126.2, subd. (d))
- Identify any growth-inducing impacts of a proposed project such as the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment (§ 15126.2I)
- Identify any known areas of controversy or unresolved issues (§ 15123, subd. (b))
- Identify the environmentally superior alternative (§ 15126.6, subd. I(2))

Compliance with the above sections of the State CEQA Guidelines is addressed in Sections 6.1 through 6.5 below.

6.1 ENERGY USE

If analysis of a project's energy use reveals that the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, the EIR shall provide mitigation to address such energy use.

The proposed Project-related energy use would be limited to fossil fuels used in equipment and vehicles used to conduct decommissioning activities. This energy use would be focused on specific tasks and would not be wasteful, inefficient, or unnecessary or result in significant energy-related impacts. The

17 The State CEQA guidelines are found in California Code of Regulations, title 14, sections 15000 et seq.

Project would not conflict with any State or local plan for renewable energy or energy efficiency, including Ventura County's Climate Action Plan.

6.2 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

Significant environmental impacts anticipated as a result of the Project and mitigation measures identified to reduce impacts are discussed in Section 4.0, Environmental Impact Analysis. The State CEQA Guidelines section 15126.2I requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures.

There are no significant Project impacts that have been identified that cannot be avoided following implementation of recommended mitigation measures that would reduce potential impacts to a less than significant level.

6.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES CAUSED BY THE PROJECT IF IMPLEMENTED

Significant irreversible environmental changes that may occur with implementation of a proposed project are addressed in Sections 6.3.1 through 6.3.3 below (State CEQA Guidelines §15126.2, subd. (d)).

6.3.1 Non-renewable Resources

Project-related use of non-renewable resources would be limited to fossil fuels for equipment and vehicles used to conduct decommissioning and restoration activities. However, the Project would not involve any future phases or other components or features that would involve a large commitment of non-renewable resources. The proposed Project activities would be completed during Phase 3 to prepare Rincon Island and the Onshore Facility for new uses, including but not limited to co-management with sovereign tribal nations, consistent with the Public Trust. The Project does not include proposals for future use, which is an unresolved issue at this time, pending applications from interested party(ies) for a lease(s). Therefore, the Project would not result in any significant irreversible environmental changes related to non-renewable resources.

6.3.2 Commit Future Generations to Similar Uses

A commitment of a resource is considered irreversible when its use limits the future options for its use. Irreversible changes may include current or future uses of non-renewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses. The Project is limited to decommissioning, remediation, and restoration of existing land uses (formerly utilized as oil and gas production facilities and open space). The Project does not include components that would result in growth inducing impacts by providing access to previously inaccessible areas or result in a new land use that may commit future generations to similar uses. The proposed Project activities would be completed during Phase 3 to prepare Rincon Island and the Onshore Facility for new uses, including but not limited to co-management with sovereign tribal nations, consistent with the Public Trust.

The Project does not include proposals for future use, which is an unresolved issue at this time, pending applications from interested party(ies) for a lease(s). Therefore, the proposed Project would not result in any significant irreversible environmental changes related to committing future generations to similar uses.

6.3.3 Environmental Accidents

Irreversible damage can result from environmental accidents associated with a project. Project implementation has the potential to result in an oil spill from construction equipment or accidental release of contaminated soils from Rincon Island and the Onshore Facility during remediation activities or transport for disposal. However, this EIR identifies Project implementation methodology to minimize the potential for an oil spill, and mitigation to minimize the effects should it occur (implementation of a Project-specific Remedial Action Plan, **MM HAZ-1a**, and an Oil Spill Contingency Plan, **MM HAZ-1c**). Therefore, the Project would not result in any significant irreversible environmental changes related to environmental accidents.

6.4 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

This section discusses whether the proposed Project would foster economic growth or population growth in the surrounding area. A project may foster economic or population growth in a geographic area if it would meet any of the following criteria:

- The project would result in the urbanization of land in a remote location, creating an intervening area of open space which then experiences pressure to be developed
- The project removes an impediment to growth through the establishment of an essential public service or the provision of new access to an area

- Economic expansion, population growth or the construction of additional housing occurs in the surrounding environment in response to economic characteristics of the project
- The project establishes a precedent-setting action, such as a change in zoning or general plan amendment approval that makes it easier for future projects to gain approval

Should a project meet any one of these criteria, it may be considered growth-inducing. An increase in population may require construction of new facilities that could cause significant environmental impacts. State CEQA Guidelines section 15126.2I states that growth in an area is not necessarily beneficial, detrimental, or of little significance to the environment.

The Project would not result in urbanization of land, remove an impediment to growth, produce an economic expansion or change in revenue base, housing, or employment, or establish a precedent-setting action (e.g., no changes in zoning). Therefore, the Project would not be growth-inducing or result in environmental impacts associated with such growth.

6.5 KNOWN AREAS OF CONTROVERSY OR UNRESOLVED ISSUES

6.5.1 Known Areas of Controversy

Pursuant to State CEQA Guidelines section 15123, the EIR shall identify "areas of controversy known to the lead agency including issues raised by agencies and the public." One area identified as being potentially controversial during the Feasibility Study was the potential to disrupt existing recreational opportunities (particularly surfing) present within the offshore Project site. Additionally, the quantity and quality of biological resources associated with the causeway structures was questioned. The Feasibility Study acknowledged that the potential removal of the causeway would result in permanent impacts to existing biological resources; however, the quality of the biological resources associated with the causeway structure was based upon historically published studies, as recent surveys had not been conducted.

In response to these concerns, additional studies and analyses are included within the EIR to address coastal processes (Appendices G1 and G2), baseline surfing conditions (Appendix H) and potential impacts from Project Alternatives including removal or partial removal of the causeway, and biological resources associated with the causeway structure (Appendices D2 and D3).

6.5.2 Unresolved Issues

An unresolved issue known to CSLC, as the lead agency, is the scope of the Project that CSLC will have the budget to undertake, as the administrator of State sovereign lands. A legislative appropriation of funds will be required to implement the project approved by the Commission. This EIR analyzes the proposed Project and includes decommissioning of the subject facilities in accordance with existing federal, state, and local regulations. The proposed Project activities would be completed during Project implementation (Phase 3) to prepare Rincon Island and the Onshore Facility for new uses, including but not limited to co-management with sovereign tribal nations, consistent with the Public Trust. The Project does not include proposals for future use, which is an unresolved issue at this time pending applications from interested party(ies) for a lease(s).

Additionally, it is unknown at this time if it would be possible to combine remediation of the Onshore Facility with the adjacent Coast Ranch parcel. Additionally, the Onshore Facility Remedial Action Plan would be developed in coordination with the County of Ventura and Los Angeles Regional Water Quality Control Board (LARWQCB) prior to Project implementation. It is unknown at this time what remediation action levels the County or LARWQCB would establish for the Onshore Facility Project site, or what remediation options would be approved by those entities. As such, Onshore Facility remediation Options 1 through 5 have been included in the Project to disclose construction methodology and potential impacts associated with each remediation option considered to achieve the Project objective.

Finally, both the SCC and California Coastal Commission (CCC) noted in comments submitted during the Feasibility Study review and through participation in the Joint Review Panel (JRP) for preparation of the DEIR that they encourage a return of the coastline to its natural state and reduction of the amount of added “hardscape” (such as cobble and riprap) along the coast, which may affect natural shoreline processes regarding sand movement downcoast. Because one of the DEIR objectives is to provide the Commission with a full range of Project options to consider for protection of Public Trust resources and uses (including preservation of existing public access at the SCC Parcel and of roadways that provide access to Public Trust resources, such as the causeway to Rincon Island), and because the SCC and CCC have not issued any approvals or taken any actions on the final disposition of the SCC Parcel, SCC Parcel Options 2 and 3 are retained in this document. Such inclusion allows for full consideration, comparison, and disclosure of options for preserving and improving the SCC Parcel and adjacent access to roads.

6.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE DISCUSSION

Five alternatives were analyzed in detail in this EIR as follows:

- No Project Alternative
- Reefing Alternative
- Abutment and Revetment Retention Alternative
- Partial Causeway Removal Alternative
- Offshore Disposal Option (Rincon Island)

Table ES-2 compares the environmental impacts associated with implementation of the Project with those of the five alternatives. As discussed in Section 5.4.1, the No Project Alternative would not result in any new direct impacts to the environment. However, existing contamination at Rincon Island and the Onshore Facility would remain in place. Because of these ongoing environmental impacts if the decommissioning Project is not implemented, the No Project Alternative is not considered the environmentally superior alternative.

The State CEQA Guidelines section 15126.6, subdivision (e)(2) states, in part, that an EIR shall identify an environmentally superior alternative among the other alternatives if the "environmentally superior alternative is the 'no project' alternative." Because the No Project Alternative is not considered the environmentally superior alternative, the State CEQA Guidelines do not require identification of an environmentally superior alternative among the remaining alternatives.

7.0 OTHER STATE LANDS COMMISSION CONSIDERATIONS

In addition to the environmental review required pursuant to the California Environmental Quality Act (CEQA), a public agency may consider other information and policies in its decision-making process. This section presents information relevant to the California State Lands Commission's (CSLC's) consideration of the Project. The considerations addressed below are:

- Climate Change and Sea Level Rise (SLR)
- Commercial Fishing
- Environmental Justice
- Remediation Option Costs
- Long-term Maintenance Costs

Other considerations may be addressed in the staff report presented at the time of the Commission's consideration of the Project.

7.1 CLIMATE CHANGE AND SEA LEVEL RISE

While the scientific understanding and projections of climate change and SLR are advancing at a rapid pace, impacts are already being felt in our oceans and along the California coast. Climate change has been found to have many effects on our oceans and coasts including, but not limited to, ocean acidification, hypoxia, increased storm surge, and SLR. Climate change is driven by greenhouses gas (GHG) emissions that absorb infrared radiation within the atmosphere. Refer to Section 4.7, Greenhouse Gas Emissions, regarding Project emissions of GHGs.

7.1.1 Climate Change

High anthropogenic global carbon dioxide (CO_2) emissions over the last 250 years have significantly altered atmospheric and oceanic chemistry, resulting in harmful ecological impacts. Underwater current and circulation patterns and processes are anticipated to change as a result of warmer water temperatures and changes in seawater density and salinity. This atmospheric and oceanic interaction (i.e., storm-related water turbulence) could change the character of submerged lands in shallow nearshore environments, as the seafloor would be subjected to stronger energy forces as a results of inshore wave propagation during extreme storm events. Changes to nearshore currents and water chemistry in California are being monitored by the Southern California Coastal Ocean Observing System (SCCOOS).

Storm surges are anticipated to increase in both strength and frequency with climate change. The National Atmospheric and Space Administration (NASA) has determined that storm surges are being boosted from climate change, and that climate change may lead to more frequent and severe storms. More frequent and intense storms can lead to greater amounts of runoff and erosion, turbidity, decreased salinity, and direct physical damage to coastal structures and habitats. The frequency and severity of El Niño Southern Oscillation-related storm events may increase over time with climate change, which could increase the speed of coastal erosion processes.

7.1.2 Sea Level Rise

The California Ocean Protection Council updated the State of California Sea-Level Rise Guidance in 2018 to provide a synthesis of the best available science on SLR projections and rates. Commission staff evaluated the "high emissions," "medium-high risk aversion" scenario to apply a conservative approach based on both current emission trajectories. The Santa Barbara tide gauge (closest to the Project site) was used for the projected SLR scenario for the Projects sites as listed in Table 7-1.

Table 7-1. Projected Sea Level Rise for Santa Barbara

Year	Projection (feet)
2030	0.7
2040	1.1
2050	1.8
2100	6.6

Source: Table 22, State of California Sea-Level Rise Guidance: 2018 Update
Note: Projections are with respect to a 1991 to 2009 baseline.

Based on this data, the coastline Project sites (SCC Parcel and Rincon Island Causeway abutment areas) could likely see (66 percent probability) a range of up to a 0.7 foot of SLR by 2030, 1.8 feet by 2050, and as extreme as 6.6 feet of SLR by 2100.

As stated in the Safeguarding California Plan: 2018 Update (California Natural Resources Agency 2018), climate change is projected to increase the frequency and severity of natural disasters related to flooding, drought, and storms (especially when coupled with SLR). The combination of these conditions will likely result in increased wave run up, storm surge, and flooding in coastal and near coastal areas.

An analysis of projected SLR and its effects, combined with the effects of climate change, on the proposed decommissioning area and facilities (including Rincon Island, the causeway, and the SCC Parcel) was included as part of the Coastal Engineering Study (NV5 2021) conducted in support of the Feasibility Study (refer to Section 2.5 of the Feasibility Study for detail). The decommissioning activities at the Onshore Pipeline Connections (OPC, which is a portion of the overall pipeline system) and Onshore Facility are not expected to be impacted by SLR due to their upland locations outside of projected SLR impacted areas based on maximum water heights (6.6 feet) (Marcy et al. 2011). Existing sea surface elevation information (also referred to as "still water level") was combined with the likely range of SLR increases to determine a range of maximum future sea surface levels. This information was modeled in the Coastal Engineering Study to assess potential SLR impacts at the existing Rincon Island and SCC Parcel Project sites as further described below.

Rincon Island

The analysis results indicated that Rincon Island (in its existing condition) is not anticipated to be flooded (overtopped by ocean water) with still water levels (SWL) alone, even considering the highest SLR projection of 6.6 feet in 2100, as the top of the surrounding armoring (riprap and tetrapods) measure approximately 35.5 feet above sea level. However, during 10-year or larger storm events, the south (seaward) side of the Island (crest elevation of +35.5 feet) could be overtopped by waves (anticipated wave runup elevation of +36.1 feet, NAVD88 or higher) and cause flooding in the interior of the Island. Rincon Island was developed with an unusual shape in order to optimize wave protection, but the south side of the Island is more vulnerable to wave run up because of its direct exposure to westerly swells. Extreme storms that have occurred over the past 60 years do not appear to have endangered the whole Island, which indicates that Rincon Island may remain in place even when subject to the rare occurrences of very large storm events. The existing protective armors on the north side, leeside, and southeast side of the Island appear to be able to withstand a 100-year storm event at the current SWL and protect the interior of the Island. However, other less protected or unarmored portions of the Island or causeway are more vulnerable to large storm events. For example, in January 2023, strong storms and high waves resulted in damage to the wooden railing of the Rincon Island causeway.

SCC Parcel

Higher water levels result in greater wave energy reaching higher up on the shoreline. Along with higher sea levels, winter storms of greater intensity and frequency resulting from climate change will further affect coastal areas. In open coastal areas and tidally influenced waterways, more frequent and powerful storms can result in storm surge, increased flooding conditions, and damage from storm-generated debris. Recent studies found that the SCC Parcel is relatively stable during typical oceanographic conditions occurring under existing sea levels (at that time) (Everest 2014). Results of the study also concluded that under sea levels presented at the time of the study, the extreme storm waves combined with extreme high ocean water levels were not expected to overtop the existing bluff. This can partially be attributed to natural protections from cobble and nearshore, shallow reefs as well as various riprap revetement and sea wall projects over time that have protected the bluff and coastline.

However, future sea level predictions for 2050 or 2100, combined with long-period swells, are likely to result in wave run-up that would overtop the bluff and flood the SCC Parcel (Everest 2014), particularly as the existing riprap revetment has been partially dislodged leaving an 8-foot-high exposed bluff face. If mean sea level increases according to the projections for years 2030, 2050, and 2100, then there is the potential that additional erosion and bluff retreat at the SCC Parcel could eventually undermine the integrity of infrastructure in the Mussel Shoals community, including the access roadway to Rincon Island (see Figures 2-9 and 2-10 for evidence of ongoing erosion). Refer to Section 4.6, Geology and Coastal Processes, for further discussion of effects of soil erosion at the SCC Parcel.

The section below discusses how various Project options at the SCC Parcel would be affected by the anticipated SLR.

Option 1: Native Revegetation and Access Improvements

SCC Parcel Option 1 would include revegetation of the upland portion of the parcel adjacent to Breakers Way and Ocean Avenue with native plants intended to promote biodiversity and reduce erosion along the SCC Parcel terrace. Existing non-native vegetation would be removed by hand and replaced with native plants/seed mix to create a uniformly covered area. Option 1 would result in minimal changes to the existing topography, although the anchoring of the new stairway may be subject to ongoing wave action and

SLR that would determine the maintenance requirements and lifespan of the stairs. Additionally, since the existing gap in the riprap would remain, the shoreline in this area would continue to experience wave action and bluff erosion as well as exposure to future effects of SLR.

Option 2: Native Revegetation, Access Improvements, and Installation of a Cobble Back Berm

Option 2 would include all of the components described in Option 1, in addition to the installation of a cobble back berm that is intended to slow erosional processes on the SCC Parcel. Installation of a cobble back berm is a form of nature-based solution that uses natural components and processes to reduce hazards, such as erosion, and enhance shoreline resiliency. The cobble back berm and additional sand would change the topography of the SCC Parcel at the shoreline from nearly flat with a vertical bluff face to a narrower terrace with a gradual slope down to the beach area. The new profile would be designed to mimic a natural grade, but would be at a lesser slope than the existing riprap revetment east of the proposed cobble back berm area. The cobble back berm would also include a natural transition from the vegetation on the upper bluff into the new cobble fill placed on the beach stabilizing the shoreward side of the SCC Parcel.

The stability of a cobble back berm is attributed to its ability to be a dynamic revetment in contrast to a conventional static riprap revetment (Griggs 2022). Unlike seawalls or riprap, the cobble back berm adapts to the local waves and sand migration processes in that, after initial placement, the stones would be rearranged by wave action into a site-specific equilibrium profile where they continue dissipating wave energy as the cobbles move into formation becoming buried by sand during the summer and fall and exposed during the winter and spring. Several studies have shown that cobble back berms are more resistant to beach scour and remain stable, even with seasonal sand migration (Griggs 2022). Studies on cobble back berms to withstand SLR revealed that the mobility of the individual stones to transport upward and landward during high water levels is the primary reason why the cobble back berms remain stable. The ability of the berm to adapt to the changing conditions would offer protection to the upland SCC Parcel and landward structures from future wave action and SLR (Griggs 2022).

Option 3: Native Revegetation, Access Improvements, and Installation of Riprap Along Parcel Frontage

Option 3 would include all of the components described in Option 1, but instead of placement of a cobble back berm to reduce erosion as described in Option 2, this option would include replacement of riprap revetment that was formerly present. The riprap revetment would armor approximately 130 feet of the SCC Parcel bluff that is currently unprotected. The additional riprap would connect into the existing riprap revetment on the eastern portion of the SCC Parcel that protects the end of Breaker Way in Mussel Shoals. There is potential for the added riprap to cause or exacerbate beach loss; however, it is important to note that there was minimal beach loss during the time when there was a continuous segment of riprap on the parcel.

A riprap revetment was initially installed in 1959 along the entire bluff, but since then some of the rock has been dislodged and fallen due to wave action (possibly due to original design or construction), which has left a portion of the upper bluff exposed. Other riprap revetments in the area remain intact and have not been affected by wave action (i.e., riprap revetment at the end of Breakers Way, Cliff House Inn riprap revetment, and Highway 101 revetment). As with the other riprap revetments in the area, the addition of riprap along the shoreline is expected to prevent bluff erosion. However, the additional riprap configuration would have to be designed with future SLR elevations in mind, and may still eventually allow flooding of the upland SCC Parcel area. The installed and existing riprap may require regular maintenance and repair to maintain shoreline stabilization and erosion control benefits.

7.1.3 Conclusion

SLR will likely not have a substantial impact on the Rincon Island Project site due to the original design of the Island and current elevations above sea level; however, more vulnerable structures on the Island or causeway may experience damage from large storms or waves and require future maintenance. Future SLR should not impact the stability of the existing armor material around Rincon Island because the SLR is small compared to the existing water depth at the toe of these revetments and pilings (NV5 2021). However, an analysis of wave runup and overtopping at Rincon Island showed that the ocean (south) side of the Island would overtop and cause flooding to the interior of the island during 10-year or larger storm events.

Under the proposed Project, all three of the SCC Parcel improvements options are intended to reduce shoreline erosion and potential impacts to critical infrastructure, and Options 2 and 3 would provide additional protection against significant wave action and the effects of SLR along the shore. However, flooding of the upland portion of the parcel may still result depending on actualized SLR.

7.2 COMMERCIAL FISHING

This section describes commercial fishing activities surrounding the vicinity of the Project sites and evaluates the potential impacts to those commercial fisheries in accordance with applicable California Coastal Act Policies 30234 and 30234.5. Recreational fishing is discussed in Section 4.12, Recreation. Commercial fishing is an important economic and cultural activity in California. Commercial fishing along the Ventura and Santa Barbara coast uses several gear types that target a wide variety of fish and invertebrate species. The most common types of commercial fishing gear include trawls, trolling, longlines, and gillnets.

7.2.1 Fish Block Information

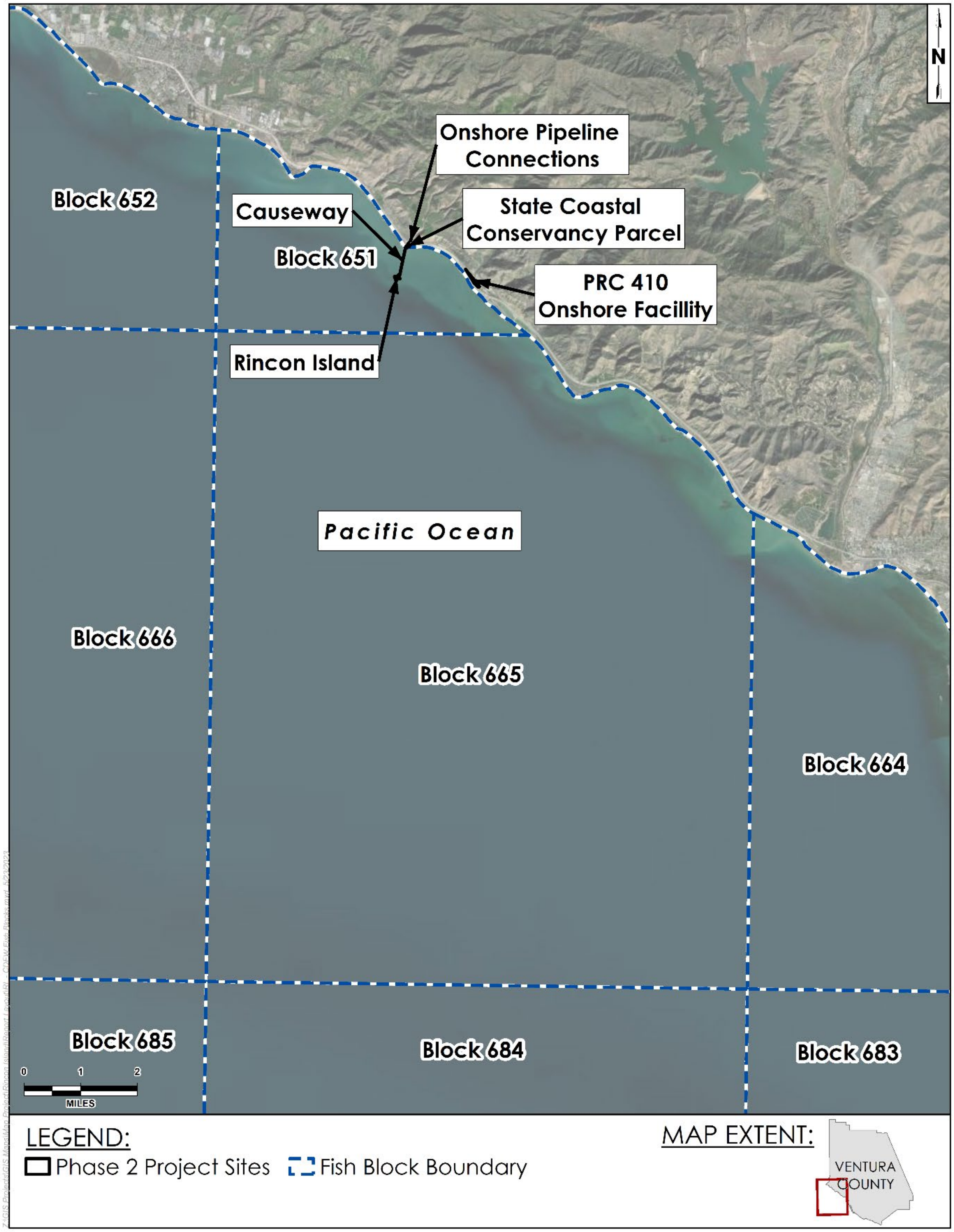
The offshore area is located between shore and the 50-foot isobath (depth). Most of the fishermen that use fishing grounds near this area hail from Ventura, Channel Islands, and Santa Barbara harbors. The California Department of Fish and Wildlife (CDFW) maintains the fish block (FB) data that is generated by commercial catch records that are provided to the department by fish buyers. The location of the catch is reported by FB, a grid system that was established by CDFW. The Project site is located within FB 651 (Figure 7-1); however, due to the small size of Block 651, Block 652 is also included in this assessment to analyze commercial fishing for the region. Water depths and commercially important species are similar between the two FBs.

Commercial fishing catch data was requested from CDFW to identify the fisheries present in the Project site; however, due to concerns regarding confidentiality, the monetary value data and catch amounts were redacted and not available for this assessment. The most commonly caught fish species within FBs 651 and 652 between 2015 and 2020 are California spiny lobster, rock crab, red sea urchin, and halibut. Rockfish, bluefin tuna, Pacific mackerel, and white seabass are also fisheries that reported in FBs 651 and 652. Both FBs 651 and 652 reported similar landings for 2015 through 2020; however, FB 652 had higher landings of market squid (specifically 2015 and 2016) (CDFW 2021).

7.2.2 Fisheries

A high density of California spiny lobster and rockfish species were reported within the submerged tetrapods around the perimeter of the Island (UCSB 2021). In FB 651, California spiny lobster was the highest grossing fishery from 2015

Figure 7-1. CDFW Fish Catch Blocks



Source: CDFW 2023c

through 2020 and was in the top five fisheries for all 6 years for total pounds harvested. Due to shallow water depths, large deep-water fishing operations are not known to occur around the Island; however, lobster fisherman often deploy lobster pots in large numbers (hundreds) from small fishing vessels in the waters surrounding the Island.

Other target species in the top five highest grossing fisheries between 2015 and 2020 include California halibut, red sea urchin, yellow tail, white seabass, yellow and red rock crab, and pacific mackerel. The California halibut fishery targets species that occur on the seafloor in sandy, soft bottom habitats. The commercial halibut fishery uses trawling gear to drag across the ocean floor. However, trawling is prohibited within State waters (0 to 3 geographical miles [nm] offshore), except in the designated “California halibut trawl grounds” that encompass the area between Point Arguello (Santa Barbara County) and Point Mugu (Ventura County) in waters beyond 1 nautical mile from shore. Therefore, the offshore Project site is not located within nearshore halibut trawling grounds.

Red sea urchin and giant red sea cucumber (California sea cucumber) are harvested by divers. Red sea urchin landings occur in southern California and north of San Francisco. Most of the red urchin landings in southern California come from the mainland coast of San Diego north to Santa Barbara and all California Channel Islands, especially San Clemente, Santa Rosa, and San Miguel islands (CDFW 2023c). Giant red sea cucumber is primarily harvested by the commercial trawl fishery in southern California, with minor amounts of diver harvesting occurring in northern and southern California. Most of the historic landings in southern California come from the Santa Barbara Channel (SBC) and San Pedro Shelf in water depths of 150 feet to 420 feet, much deeper than the water depths within the Project site (CDFW 2023c).

Yellowtail supports a fluctuating commercial fishery off southern California, where warm water years typically increase the number of landings and cooler water years result in lower landings. The commercial fishery targets yellowtail with hook and line, set gill nets, and drift gill nets (CDFW 2023c).

White seabass occurs in or near large kelp beds that fringe beaches and rocky headlands in southern California and the offshore islands. They are also found several miles offshore in schools of various sizes and tend to occur close to the seafloor in deeper water. Historically, commercial fishermen have used gill nets, hook and line, trawl nets, and round haul gear such as lampara and purse seine nets to take white seabass (CDFW 2023c). While hook and line may be used in the water depths surrounding the Project sites, the other fishing methods would most likely not be deployed within the Project sites.

The rock crab fishery can be found across similar depths ranging from the low intertidal to at least 500 feet. Red rock crab are found in coastal waters as well as bays and estuaries on rock, sand, or mud substrates. Yellow rock crab habitat is mainly silty sand substrate and the sand-rock interface around reefs. Commercial fishing using traps occurs across the state with most landings concentrated along the SBC, the northern Channel Islands, and Point Loma in San Diego County (CDFW 2023c). However, the average fishing depth is 120 feet, so it is unlikely the rock crab fishery relies on waters within the Project sites.

7.2.2.1 Conclusion

The Project would not result in any change to the existing commercial fishing in the region. Offshore Project activities would occur within the interior of Rincon Island and would not remove or damage fish habitat within the Project sites. Although the Project site occurs in shallower water depths than the operating depths of the majority of local commercial fisheries, there are no in-water Project activities that would restrict access to or remove valuable fishing grounds; therefore, the impact to commercial fishing is less than significant.

7.3 ENVIRONMENTAL JUSTICE

"Environmental justice" is defined by California law as "the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Gov. Code, § 65040.12, subd. (e)). This definition is consistent with the Public Trust Doctrine principle that the management of trust lands is for the benefit of all people. The Commission adopted an Environmental Justice Policy in December 2018 (Item 75, December 3, 2018) to ensure that environmental justice is an essential consideration in the Commission's processes, decisions, and programs.[18] Through its policy, CSLC reaffirms its commitment to an informed and open process in which all people are treated equitably and with dignity, and in which its decisions are tempered by environmental justice considerations. Among other goals, the policy commits CSLC to, "Strive to minimize additional burdens

18 See https://www.slc.ca.gov/wp-content/uploads/2018/11/EJPolicy.pdf

on and increase benefits to marginalized and disadvantaged communities resulting from a proposed project or lease."[19]

This policy is consistent with the principals outlined in the California Coastal Commission's (CCC) Environmental Justice policy adopted in 2019[20]. As specified, California Public Resources Code Section 30604(h) states that "when acting on a coastal development permit, the issuing agency, or the commission on appeal, may consider environmental justice, or the equitable distribution of environmental benefits throughout the state."

In keeping with its commitment to environmental sustainability and access to all, California was one of the first states to codify the concept of environmental justice in statute. Beyond the fair treatment principles described in statute, CSLC believes that it is critical to include individuals who are disproportionately affected by a proposed project's effects in the decision-making process. The goal is that, through equal access to the decision-making process, everyone has equal protection from environmental and health hazards and can live, learn, play, and work in a healthy environment.

In 2016, legislation was enacted to require local governments with disadvantaged communities, as defined in statute, to incorporate environmental justice into their general plans when two or more general plan elements (sections) are updated. The OPR (the lead state agency on planning issues) is working with state agencies, local governments, and many partners to update the General Plan Guidelines to include guidance for communities on environmental justice (Governor's Office of Planning and Research 2018a).

7.3.1 U.S. Census Bureau Statistics

Table 7-2 presents income, employment, and race data of the regional and local study area within the vicinity of the Project sites, based on the most recently available information from U.S. Census 2021 American Community Survey 5-Year Estimates.[21] The proposed Project sites are located within

19 Id.

20 https://documents.coastal.ca.gov/assets/env-justice/CCC_EJ_Policy_FINAL.pdf

21 U.S. Census 2021 American Community Survey estimates come from a sample population but are more current than the most recent full census of 2020. Because they are based on a sample of the population, a certain level of variability is associated with the estimates. Supporting documentation on

unincorporated Ventura County, but specifically fall within Census Tract No. 95. Due to population density, this Census Tract encompasses a large portion of western unincorporated Ventura County, which includes a large rural area. As such, the Census Tract data as a whole may not accurately represent the coastal demographics of the onshore Project sites.

Table 7-2. Environmental Justice Statistics

Parameter	California	Ventura County	Census Tract No. 95
Income and Population			
Total population	39,455,353	845,255	3,191
Median household income	$84,097	$94,150	$77,667
Percent (%) below the poverty level (all families)[1]	8.7%	6.2%	5.8%
Employment Industry (percentage of total population)			
Agriculture, forestry, fishing and hunting, mining	2.1%	4.9%	5.6%
Construction	6.6%	6.3%	5.1%
Manufacturing	9.0%	9.8%	8.3%
Wholesale trade	2.7%	3.0%	1.0%
Retail trade	10.3%	9.9%	7.1%
Transportation and warehousing, and utilities	5.7%	3.7%	3.4%
Information	2.9%	2.5%	0.9%
Finance and insurance, and real estate and rental and leasing	5.9%	7.0%	2.7%
Professional, scientific, and management, and administrative and waste management services	14.0%	12.8%	22.4%
Educational services and health care and social assistance	21.4%	19.9%	25.1%

American Community Survey data accuracy and statistical testing can be found on the American Community Survey website in the Data and Documentation section available here: census.gov/programs-surveys/acs.

Parameter	California	Ventura County	Census Tract No. 95
Arts, entertainment, and recreation, and accommodation and food services	9.8%	9.7%	12.4%
Other services, except public administration	5.0%	5.1%	3.7%
Public administration	4.6%	5.4%	2.3%
Race			
White	52.1%	70.1%	85.8%
Black or African American	5.7%	1.8%	0.3%
American Indian and Alaska Native	0.9%	1.1%	2.0%
Asian	14.9%	7.3%	2.9%
Native Hawaiian	0.4%	0.2%	0.0%
Some Other Race	15.3%	6.9%	2.6%
Hispanic or Latino (of Any Race)	39.5%	43.3%	19.3%

Notes:
[1] Poverty threshold as defined in the ACS is not a singular threshold but varies by family size. Census data provides the total number of persons for whom poverty status is determined and the number of people below the threshold. The percentage is derived from this data.
Source: U.S. Census Bureau American Fact Finder accessed January 2023 (DP05 – ACS Demographic and Housing Estimates and DP03 – Selected Economic Characteristics); 2021 ACS 5-Year Estimates.

7.3.2 Population and Economic Characteristics

7.3.2.1 Demographics

As indicated in Table 7-2, regionally the population in Ventura County is comprised of approximately 70.1 percent white and 29.9 percent non-white populations. This demographic includes a higher percentage of white individuals than reported for the State of California (52.1 percent white and 47.9 percent non-white populations). Further, the population within Census Tract 95, including the proposed Project sites, is predominantly white (85.8 percent).

It is important to note that regionally, this area contains a significant number of persons who classify themselves as being of Hispanic or Latino decent (43.3 percent in Ventura County). This is slightly higher than the percentage reflected for the State of California (39.5 percent). Conversely, Census Tract 95 (including the proposed Project sites) includes a much lower percentage of persons identified as being of Hispanic or Latino decent (19.3 percent).

7.3.2.2 Socioeconomics

As shown in Table 7-2, from a regional standpoint, Ventura County has a higher median household income level ($94,150) compared to the State of California ($84,097). Similarly, Census Tract 95 includes a median household income level of $77,667, which is slightly lower than the Ventura County or State of California median household earnings. Ventura County residents are primarily employed in professional, scientific, management, and educational services (accounting for a total of 32.7 percent of jobs within the County and 47.5 percent of jobs within Census Tract 95). With respect to populations (all families) living below the established poverty level, Ventura County and Census Tract 95 have lower population percentages (5.8 to 6.2 percent) than the State as a whole (8.7 percent).

7.3.3 California Office of Environmental Health Hazard Assessment (OEHHA) CalEnviroScreen Results

According to California Office of Environmental Health Hazard Assessment (OEHHA 2021) California Communities Environmental Health Screening Tool (CalEnviroScreen 4.0) data (accessed January 2023), the proposed Project sites are located within an area that is unable to have a cumulative impact score calculated (OEHAA personal communication January 2023)[22].

However, pollution indicator data show that potential exposures at the proposed Project sites primarily include pesticides, traffic, groundwater threats, hazardous waste, solid waste, and impaired water bodies. However, it is important to note that similar to the Census Tract data above, the CalEnviroScreen results include a large area that encompasses western Ventura County, which is primarily rural and agriculturally developed. Although the results

22 The census tract containing the Mussel Shoals community does not receive a population characteristics score for CalEnviroScreen but does have a pollution burden score. The overall CalEnviroScreen score representing cumulative impacts is calculated from the combination of both the pollution burden score and the population characteristics score. So, the overall score for the Mussel Shoals census tract is unable to be calculated. Reasons for an NA (NULL) score for population characteristics usually have to do with low population counts and unreliable indicator estimates for population indicator scores (OEHHA 2023).

are regionally significant, they may not reflect conditions present within the specific Project site locations, since the nearest agricultural development is approximately 0.25 miles northeast of the OPC and approximately 0.4 mile southeast from the Onshore Facility. As such, for the purposes of this analysis, the environmental factors that are most applicable to the proposed Project sites include traffic due to their proximity to U.S. Highway 101, as well as potential hazardous waste and groundwater threats.

7.3.4 Conclusion

The data presented in this EIR's analysis supports the determination that there would be no significant environmental impacts associated with the Rincon Phase 2 Decommissioning Project. The proposed Project sites are located within an area that shows a small degree of environmental burden as noted by quantitative data, at this time. Project activities are intended to improve site conditions through removal of former oil and gas infrastructure that is no longer in use and remediation of hydrocarbon impacted soils and water. Additional site improvements including establishment of native vegetation and beach access within the Mussel Shoals community would also result in a long-term benefit to biological resources, recreation, and local land uses.

The proposed Project decommissioning activities would require approximately 653 days (approximately 2 years), to complete (with the exception of Onshore Facility Remediation Option 3, where soil treatments would extend over an additional 72 months). These activities may not occur sequentially, and may overlap dependent upon a variety of factors related to funding, access, permit restrictions, and contractor and equipment availability.

As summarized above, the proposed Project sites are located within an area that is comprised of a high percentage of white persons, with average wealth, and a lower percentage of those below the established poverty level than in Ventura County or California as a whole.

As indicated in Section 4.0, Environmental Impact Analysis, the proposed Project would have the potential for short-term construction-related impacts to aesthetics, cultural resources, tribal cultural resources, hazards and hazardous materials, hydrology and water quality, land use, and recreation that have the potential to contribute to existing circumstances affecting environmental justice communities. Additionally, the proposed Project sites are identified by OEHHA as being impacted by existing pollution burdens including, but not limited to traffic and hazardous waste or groundwater threats.

However, following incorporation of identified mitigation measures (including equal representation of English and Spanish languages in posted notices and other Project-related notifications), the proposed Project is not anticipated to create new burdens or add to existing pollution burdens felt by a vulnerable community; and there are no anticipated factors that would put any sensitive populations disproportionately at risk from the proposed Project.

Additionally, the Project is intended to prepare the sites for future Public Trust-consistent use through remediation of contaminated soil and water at Rincon Island as well as the Onshore Facility, which would result in a potential long-term benefit to the community through reduced risk of hazardous materials release or runoff. No long-term or permanent structures (other than access improvements at the SCC Parcel) or operations would result from the proposed Project. Improvements proposed at the SCC Parcel would also provide long-term benefits to public access and use of the beach in this area. Any short-term impacts of Project activities would be mitigated during construction; therefore, no significant impacts to environmental justice communities would result.

7.4 ONSHORE FACILITY REMEDIATION OPTION COSTS

The total estimated cost of the proposed Project (as previously disclosed in Table 5-3 of the Feasibility Study) is $15,220,431. The Onshore Facility Remediation costs vary substantially, and the option selected for implementation could significantly affect the total cost of the Project. Therefore, cost estimates for Onshore Facility Remediation Options 1 through 5 are presented in Table 7-3 to provide a full range of potential scenarios to consider with respect to achieving the proposed Project objective for remediation of contaminated soil and groundwater at the Onshore Facility Project site. Although the option chosen would need to be approved by the Los Angeles Regional Water Quality Control Board (LARWQCB) and the County of Ventura in accordance with the Project's Remedial Action Plan (RAP) based on established cleanup thresholds, it is still helpful at this stage to understand the magnitude of costs associated with each option, as those costs will be incurred by the State as part of the proposed Project.

Table 7-3. Onshore Facility Remediation Option Costs

Option	Cost*
Preparation: Install Sheet Pile Barrier Wall (All Options)	$995,730.00
Option 1: Surface Cap/Leave Contaminated Soil In-Place and In-Situ Groundwater Bioremediation	$446,790.00

Option	Cost*
Option 2: Excavate Contaminated Soil (Dig and Haul) and Pump and Treat Groundwater Remediation	$2,658,460.00
Option 3: Excavate Contaminated Soil (Onsite Soil Treatment and Bioremediation) and Pump and Treat Groundwater Remediation	$4,134,030.00
Option 4: In-Situ Soil Mixing and In-Situ Groundwater Bioremediation	$1,326,800.00
Option 5: Localized Excavation/Surface Cap Remainder and In-Situ Groundwater Bioremediation	$517,000.00

*Cost is based upon cleanup to Residential Shallow Soil (Unrestricted) Remediation Goal

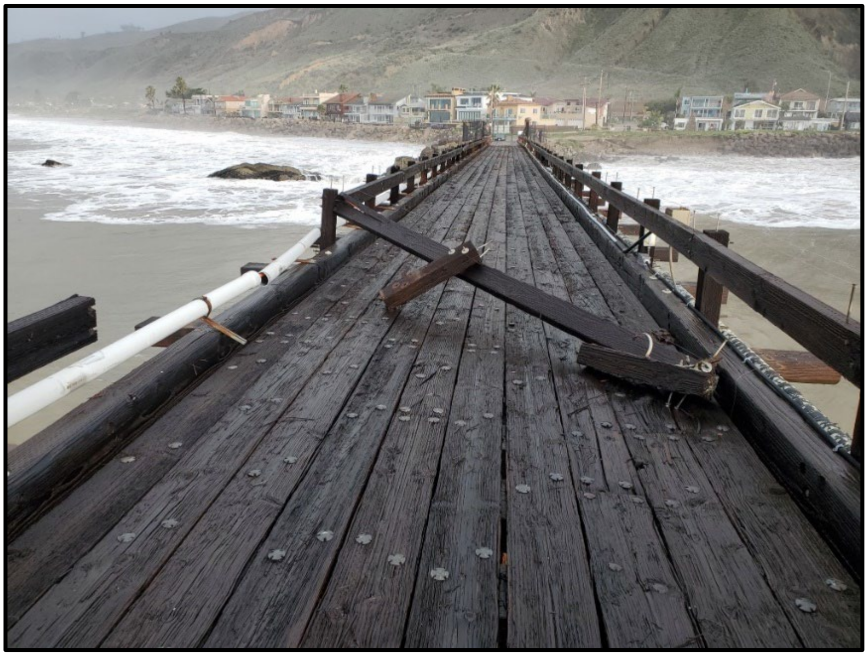
7.5 LONG-TERM MAINTENANCE COSTS

Information regarding long-term maintenance costs associated with the existing Project facilities is being provided within this EIR in order to provide full disclosure to the public regarding costs that may affect State budgets and resources.

The proposed Project includes retention of Rincon Island and the causeway, as well as preparation of the Onshore Facility for future use. These facilities were historically utilized in support of oil and gas development; therefore, upkeep and maintenance has been documented throughout this time. Due to their location offshore, Rincon Island and the causeway are subject to degradation from exposure to the marine environment, which includes saltwater corrosion and weather events generating high wind and waves. Throughout the years, the causeway has sustained storm damage requiring multiple repairs. Most recently, January 2023 storms damaged the mid-section of the causeway (Figure 7-2), which was repaired to restore the causeway's integrity in support of the proposed Project activities and ability to maintain the current caretaker status.

In addition to incidental damage, the causeway must also be routinely inspected for damage to ensure integrity of use. As noted within the Project Feasibility Study (July 2022), CSLC (with the expertise of Longitude 123, an engineering firm with extensive decommissioning knowledge and experience) performed preliminary engineering cost estimates related to ongoing maintenance of the existing causeway structure. According to these estimates, it would cost approximately $402,000 per year (on average, which includes an annualized cost related to standard repairs) to perform ongoing operation and maintenance of the causeway. In the event of a 100-year storm event, additional repairs could be needed that could exceed $1 million (Longitude 123 2022a and 2022b).

Figure 7-2. Rincon Causeway Storm Damage Following January 2023 Storm Event



As outlined in Section 5.0, Project Alternatives Analysis, an Alternative analyzing the partial removal of the causeway, leaving only a pier, has been included in this EIR. Preliminary engineering assessments indicate that partial terrestrial removal (removal of all but 840 feet of the causeway by land-based vehicles) would cost approximately $7.3 million (marine-based removal would cost more than twice that amount). Due to the loss of structural integrity caused by removal of the island/causeway connection, additional stabilization of the remaining pier structure would cost an additional $1.2 million. In addition, annual maintenance costs are estimated at approximately $134,000, plus additional costs related to storm damage as noted above.

A comparison of anticipated modification and annual maintenance costs associated with causeway retention are included in Table 7-4 below.

Table 7-4. Cost Estimates for Existing Causeway and Partial Alternative

Causeway Structure	Modification Costs	Annual Maintenance Costs*
Existing	---	$402,000
Partial (840 ft)	$8,500,000	$134,000

*In the event of a 100-year storm event, additional repairs could result in an additional cost in excess of $1 million.

With respect to the Onshore Facility, once the property has been remediated as part of the proposed Project, it is unknown what a future use would be or when that would occur. In the meantime, CSLC is responsible for ongoing maintenance associated with the Onshore Facility parcel. For example, most recently, the Onshore Facility sustained damage during the January 2023 rainstorms, as Los Sauces Creek became impacted and overtopped the banks of the Creek, damaging the existing property fence line and adjacent roadway (PCH) (Figure 7-3).

Figure 7-3. Onshore Facility Damage Following January 2023 Storm Event

8.0 REPORT PREPARATION SOURCES AND REFERENCES

This Environmental Impact Report (EIR) was prepared by the staff of the California State Lands Commission (CSLC) Division of Environmental Science, Planning, and Management (DESPM), with the assistance of Padre Associates, Inc. The analysis in the EIR is based on information identified, acquired, reviewed, and synthesized based on DESPM guidance and recommendations.

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